SOUTH BURNETT
REGIONAL COUNCIL

# AGENDA

## Ordinary Council Meeting
## Wednesday, 15 April 2026

**I hereby give notice that an Ordinary Meeting of Council will be held on:**

**Date:** Wednesday, 15 April 2026

**Time:** 9:00 AM

**Location:** Warren Truss Chamber
45 Glendon Street
Kingaroy

**Mark Pitt PSM**
**Chief Executive Officer**

In accordance with the *Local Government Regulation 2012,* please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.

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## 5 DECLARATION OF INTEREST

## 6 DEPUTATIONS/PETITIONS

Nil

# 7 CONFIRMATION OF MINUTES OF PREVIOUS MEETING

## 7.1 MINUTES OF THE COUNCIL MEETING HELD ON 18 MARCH 2026

**File Number:** **15-04-2026**

**Author:** **Coordinator Executive Services**

**Authoriser:** **Chief Executive Officer**

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### OFFICER'S RECOMMENDATION

That the Minutes of the Council Meeting held on 18 March 2026 be received and the recommendations therein be adopted.

### ATTACHMENTS

**1. Minutes of the Council Meeting held on 18 March 2026**

SOUTH BURNETT
REGIONAL COUNCIL

# MINUTES

## Ordinary Council Meeting
## Wednesday, 18 March 2026

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**MINUTES OF SOUTH BURNETT REGIONAL COUNCIL**
**ORDINARY COUNCIL MEETING**
**HELD AT THE WARREN TRUSS CHAMBER, 45 GLENDON STREET, KINGAROY**
**ON WEDNESDAY, 18 MARCH 2026 AT 9:00 AM**

**PRESENT:** **Councillors:**

Mayor Kathy Duff, Cr Jane Erkens, Cr Linda Little, Cr Danita Potter, Cr Deb Dennien, Cr Heath Sander, Cr Ros Heit

**Council Officers:**

Aaron Meehan (Acting Chief Executive Officer), Kerri Anderson (General Manager Finance & Liveability), Rebecca Bayntun (Manager Customer Solutions), Simon Ginn (Manager Planning and Development), Jennifer Pointon (Manager Commercial Enterprises and Waste), James Darcy (Manager Technical Services and Fleet), Kevin Searle (Manager Works), Leanne Petersen (Manager facilities, Parks and NRM), Danielle Gribble (Executive Assistant)

## 1 OPENING

Mayor Kathy Duff opened the meeting at 9.02am

## 2 LEAVE OF ABSENCE / APOLOGIES

Chief Executive Officer Mark Pitt

## 3 PRAYERS

A representative of Church in the Marketplace, Pastor Lyle Slinger offered prayers for Council and for the conduct of the Council meeting.

## 4 ACKNOWLEDGEMENT OF TRADITIONAL OWNERS

Councillor Danita Potter acknowledged the traditional custodians of the land on which the meeting took place.

## 5 DECLARATION OF INTEREST

In accordance with *S150EL* and *150EM* of the *Local Government Act 2009* I, Cr Heath Sander inform this meeting that I have a prescribed conflict of interest in relation to Item **13.1 Contractual Arrangements Entered in to Over $200,000 (EX GST).** The nature of my interest is due to myself and a related party, being my partner Rowena Wessling under our company Sanders Bobcat, is listed in the attachment to provide contract services to council. In accordance with S150EK *of the Local Government Act 2009*, I will exclude myself from any meeting, discussion or communication in relation to making a decision on this matter I propose to leave and stay away from the place where the meeting is being held while this matter is discussed and voted on.

In accordance with S150EL and 150EM of the *Local Government Act 2009* I, Cr Heath Sander inform this meeting that I have a prescribed conflict of interest in relation to **17.1 Murgon and Wondai Community CCTV cameras.** The nature of my interest is due to myself being the President of the MDBA Murgon District Business Association. In accordance with S150EK *of the Local Government*

*Act 2009*, I will exclude myself from any meeting, discussion or communication in relation to making a decision on this matter I propose to leave and stay away from the place where the meeting is being held while this matter is discussed and voted on.

In accordance with S150EL and 150EM of the *Local Government Act 2009* I, Cr Heath Sander inform this meeting that I have a prescribed conflict of interest in relation to **17.4 Applications to apply for funding through secure communities partnership program round 2.** The nature of my interest is due to myself being the President of the MDBA Murgon District Business Association, and due to my position as a business owner in that vicinity. In accordance with S150EK *of the Local Government Act 2009*, I will exclude myself from any meeting, discussion or communication in relation to making a decision on this matter I propose to leave and stay away from the place where the meeting is being held while this matter is discussed and voted on.

**Attendance**
At 9.08am Harley Radovic entered the meeting.
At 9.09am Harley Radovic left the meeting.

## 6 DEPUTATIONS/PETITIONS

### 6.1 PETITION - PROPOSED TRUCK STOP AT EXISTING UNITED PETROLEUM SITE AT 17-19 HENRY STREET NANANGO - MCU25/0017

**RESOLUTION 2026/384**

Moved: Cr Jane Erkens
Seconded: Cr Heath Sander

That the petition be received and referred to the Chief Executive Officer for consideration and report back to a meeting of Council.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 7 CONFIRMATION OF MINUTES OF PREVIOUS MEETING

### 7.1 MINUTES OF THE CORPORATE RISK & AUDIT ADVISORY COMMITTEE MEETING HELD ON 3 MARCH 2026

**RESOLUTION 2026/385**

Moved: Cr Deb Dennien
Seconded: Cr Linda Little

That the Minutes of the Corporate Risk & Audit Advisory Committee Meeting held on 3 March 2026 be received for information.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 7.2 MINUTES OF THE COUNCIL MEETING HELD ON 18 FEBRUARY 2026

**RESOLUTION 2026/386**

Moved: Cr Ros Heit
Seconded: Cr Deb Dennien

That the Minutes of the Council Meeting held on 18 February 2026 be received and the recommendations therein be adopted.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 8 MAYORAL MINUTE

Mayor Kathy Duff addressed Council regarding Disaster Recovery efforts.

### 8.1 BLAZEAID

**RESOLUTION 2026/387**

Moved: Mayor Kathy Duff
Seconded: Cr Danita Potter

That Council delegate to the the Chief Executive Officer to negotiate the engagement of BlazeAid and the cost be included in the third quarter review.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 9 NOTICES OF MOTION

### 9.1 NOTICE OF MOTION - DEPUTY MAYOR POSITION

**RESOLUTION 2026/388**

Moved: Cr Jane Erkens
Seconded: Cr Deb Dennien

That pursuant to *Section 165(3)* and *165(4)* of the *Local Government Act 2009* Council declare the position of Deputy Mayor vacant from 3 April 2026.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 9.2 NOTICE OF MOTION - DEPUTY MAYOR APPOINTMENT

**RESOLUTION 2026/389**

Moved: Mayor Kathy Duff
Seconded: Cr Ros Heit

That pursuant to *section 165(5)* of the *Local Government Act 2009* Council appoint Cr Linda Little as Deputy Mayor as of 4 April 2026.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 10 COUNCILLOR DIVISIONAL UPDATES

All Councillors provided an update on their divisions.

**Attendance**

At 9.27am Simon Ginn left the meeting.
At 9.30am Simon Ginn returned to the meeting.
At 10.10am Leanne Petersen joined the meeting.

## 11 BUSINESS OUTSTANDING

### 11.1 BUSINESS OUTSTANDING TABLE FOR ORDINARY COUNCIL MEETING

**RESOLUTION 2026/390**

Moved: Cr Danita Potter
Seconded: Cr Ros Heit

That the Business Outstanding table for the Ordinary Council Meeting be received for information.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 11.2 QUESTION ON NOTICE - MURGON FREE CAMP

Cr Heath Sander asked what the outcome of the legal review was for the Deborah Ross deputation regarding Murgon free camp.

# 12 EXECUTIVE SERVICES

## 12.1 ADOPTION OF THE SOUTH BURNETT REGIONAL COUNCIL CULTURAL ADVISORY AND WORKING GROUP TERMS OF REFERENCE - STRATEGIC047

**RESOLUTION 2026/391**

Moved: Cr Danita Potter
Seconded: Cr Deb Dennien

That the South Burnett Regional Council Cultural Advisory and Working Group Terms of Reference – Strategic047 be adopted as presented.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 12.2 ADOPTION OF THE SOUTH BURNETT REGIONAL COUNCIL CARETAKER PERIOD POLICY - STRATEGIC062

**RESOLUTION 2026/392**

Moved: Cr Danita Potter
Seconded: Cr Ros Heit

That the South Burnett Regional Council Caretaker Period Policy – Strategic062 be adopted as presented.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 12.3 GRANT OPPORTUNITY - RESIDENTIAL ACTIVATION FUND (RAF) - ROUND 2

**RESOLUTION 2026/393**

Moved: Cr Danita Potter
Seconded: Cr Deb Dennien

That South Burnett Regional Council:

1. Deem the associated Operational Work Road Works (Internal), Stormwater, and Earthworks for the Kingsgrove Living Development Project (73 and 75 Buckingham Street and 48, 50 & 52 Logan Street, Kingaroy) required per the Decision Notice dated 24 December 2025 as essential infrastructure; and

2. Prepare and submit a grant application on behalf of the developer Greenidge Pty Ltd ATF The RM and SM Burgess Family Trust for the **Residential Activation Fund – Round 2** opportunity.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**RESOLUTION 2026/394**

Moved: Mayor Kathy Duff
Seconded: Cr Ros Heit

That South Burnett Regional Council delegate to the Chief Executive Officer to prioritise and submit additional Residential Activation Fund applications for Council trunk infrastructure.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 13 FINANCE & LIVEABILITY

**Attendance**
At 10.19am Samantha Dunstan
At 10.21am Samantha Dunstan left the meeting.
At 10.21am Rebecca Bayntun left the meeting.

At 10.20am Cr Heath Sander having earlier informed the meeting of a prescribed conflict of interest in Item 13.1 and his decision to voluntarily not participate in the decision on this matter, left the place at which the meeting was held, including any area for the public and stayed away while the matter was discussed and voted on.

## 13.0 QUESTION ON NOTICE - UNDISCLOSED AMOUNT - CONTRACTURAL ARRANGEMENTS

Cr Danita Potter asked for a reason for the undisclosed amount listed in the contractural arrangements entered into over $200,000.

## 13.1 CONTRACTURAL ARRANGEMENTS ENTERED IN TO OVER $200,000 (EX GST)

**RESOLUTION 2026/395**

Moved: Cr Danita Potter
Seconded: Cr Ros Heit

That this report be received for information

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien and Ros Heit

Against: Nil

**CARRIED 6/0**

**Attendance**
At 10.26am Cr Heath Sander returned to the meeting.

## ADJOURN MORNING TEA

**RESOLUTION 2026/396**

Moved: Cr Jane Erkens
Seconded: Cr Ros Heit

That the meeting adjourn for morning tea at 10.26am.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## RESUME MEETING

**RESOLUTION 2026/397**

Moved: Cr Ros Heit
Seconded: Cr Deb Dennien

That the meeting resume after morning tea at 10.57am

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**Attendance**
At 11.08am Lynelle Paterson entered the meeting.
At 11.09am Lynelle Paterson left the meeting.

## 13.2 MONTHLY FINANCIAL INFORMATION - FEBRUARY 2026

**RESOLUTION 2026/398**

Moved: Cr Danita Potter
Seconded: Cr Ros Heit

That the monthly Financial Report including capital works program as at 28th February 2026 be received and noted.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 13.3 RENEWAL OF THE LEASE FOR NANANGO RUGBY LEAGUE FOOTBALL CLUB INC FOR THE NANANGO SPORTSFIELD AT 6 WILLS STREET EAST, NANANGO

**RESOLUTION 2026/399**

Moved: Cr Jane Erkens
Seconded: Cr Heath Sander

That South Burnett Regional Council:

1. in accordance with *s236(1)(c)(iii) of the Local Government Regulation 2012*, enter into a lease for the Nanango sportsfield at 6 Wills Street East, Nanango (described as Lots 5-8 on SP194332 and Lots 116-117 on N231) to the Nanango Rugby League Football Club Inc for a term of 10 years.
2. In accordance with s*257(1)(b) of the Local Government Act 2009*, delegates to the Chief Executive Officer the power to negotiate, finalise and execute a lease with the Nanango Rugby League Football Club Inc.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 13.4 DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR INTENSIVE ANIMAL INDUSTRY (EXPANSION OF AN EXISTING PIGGERY TO 57,000SPU AND ASSOCIATED INFRASTRUCTURE) AT 536 & 592 MORGANS ROAD WINDERA (AND DESCRIBED AS LOT 202 ON SP251979, LOT 203 ON SP251979 AND LOT 49 ON MZ555). THE APPLICANT IS JAMZ & CO INVESTMENTS PTY LTD

**RESOLUTION 2026/400**

Moved: Cr Danita Potter
Seconded: Cr Jane Erkens

That the matter be lifted from the table:

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**RESOLUTION 2026/401**

Moved: Cr Heath Sander
Seconded: Cr Deb Dennien

That Council approve the Development Permit for a Material Change of Use for Intensive Animal Industry (Expansion of an Existing Piggery to 57,000 SPU and Associated Infrastructure) at 536-592 Morgans Road and Mcantee Road, Windera (and described as Lots 202 and 203 on SP251979 and Lot 49 on MZ555), subject to the following conditions:

**ASSESSMENT MANAGER CONDITIONS**

**GENERAL**

GEN1. The development must be completed and maintained generally in accordance with the approved plans and documents and any amendments arising through conditions to this development approval:

**Approved Plans:**

| Drawing Title | Prepared by | Reference no. | Revision | Date |
|---|---|---|---|---|
| Site Plan | Agricultural Development Services Australia | WPC-003 | A | 22/11/21 |
| Proposed Piggery Expansion – 592 Morgans Road Windera Concept Plan 2 Kratzmanns Rd Causeway | UDP | FSA-0002-SK02 | 1 | 15/12/16 |

**Approved Document:**

| Drawing Title | Prepared by | Reference no. | Revision | Date |
|---|---|---|---|---|
| Bushfire Management Report | Range Environmental Consultants | J000738 | 1 | 10/12/21 |

Where there is a conflict between the conditions of this approval and the details shown on the approved plans and documents, the conditions of approval prevail.

GEN2. The Developer is responsible for ensuring compliance with this development approval and the conditions of the approval by an employee, agent, contractor or invitee of the Developer at all times unless otherwise stated.

**Timing:** To be maintained at all times.

GEN3. The development must be completed generally in accordance with the approved plans and documents and any amendments arising through conditions to this development approval.

GEN4. Maintain the approved development in accordance with the approved drawings and documents and any relevant subsequent approvals required by the conditions herein.

GEN5. Maintain outdoor lighting to comply with Australian Standard *AS4282 – 1997: Control of Obstructive Effects of Outdoor Lighting.* Artificial illumination is not to cause a nuisance to occupants of nearby premises and any passing traffic. Direct security and flood lighting away from adjoining residential premises.

**Timing:** At all times.

GEN6. No materials, equipment or structures are to be stored or placed within the area of the mapped waterways and drainage lines adjoining the development footprint at any time and in accordance with the approved site plan.

GEN7. Carry out the development in accordance with section 6 and 7 of the Bushfire Management Report with reference J000738 and dated 10/12/2021.

GEN8. Submit a Wastewater Management Plan (WMP) prepared by a suitably qualified person that addresses the following:

- Wastewater type;
- Climatic conditions;
- Water quality objectives; and
- Best-practice environmental management.

The WMP must demonstrate that the wastewater is managed in accordance with a waste management hierarchy that:

- Avoids wastewater discharge to waterways; or
- Minimises wastewater discharge to waterways by re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater.

**Timing:** Prior to commencement of use.

GEN9. Provide and maintain adequate signage onsite identifying emergency evacuation routes.

**FUTHER PERMITS REQUIRED**

GEN10. The development herein approved may not start until the following development permits have been issued and complied with as required:

- Development Permit for Building Works;
- Permit for Plumbing and Drainage Work; and
- Development Permit for Operational Works (Site Works, road widening, kerb and channel and associated drainage, landscaping, access driveways, water supply and sewerage discharge sludge collection and removal, stormwater disposal).

GEN11. The development (including landscaping, parking, driveway and other external spaces) shall be maintained in accordance with the approved plans, subject to and modified by any conditions of this approval.

**APPROVED USE**

GEN12. The approved development is for the expansion of an Intensive Animal Industry (Piggery) from 28,500SPU to 57,000SPU.

**LAWFUL COMMENCEMENT**

MCU1. Prior to the commencement of this use, submit to Council a Notice of Intention to Commence the Approved Use. The notice must:

- Be submitted to the Manager, Planning and Development with a minimum of ten (10) business days prior to the commencement of the approved use;
- Nominate the day the approved use is intended to commence; and
- Include evidence (i.e. copies of decision notice(s), photographic proof, and statement(s) of compliance with the conditions of this approval which demonstrates that all conditions of this approval have been complied with.

**Note:** Council offers condition compliance inspections, which currently attracts a fee of $453.50. However, the actual amount payable will be based on Council's Register of Fees & Charges and the rate applicable at the time of payment.

**ADMINISTRATION**

ADM1. All conditions of this approval must be undertaken and completed to the satisfaction of Council, at no cost to Council.

ADM2. All conditions, works, or requirements of this approval must be undertaken and completed prior to the commencement of use, unless otherwise stated.

ADM3. Unless otherwise stated, all works must be designed, constructed and maintained in accordance with the relevant Council policies, guidelines and standards.

ADM4. All engineering drawings/specifications, design and construction works must comply with the requirements of the relevant Australian Standards and must be approved, supervised and certified by a Registered Professional Engineer of Queensland. Any concurrence agency conditions will apply in addition to these standard conditions.

**ENGINEERING WORKS**

ENG1. Submit to Council, an Operational Work application for all civil works including earthworks, roadworks and accesses.

ENG2. Complete all works approved and works required by conditions of this development approval and/or any related approvals at no cost to Council, prior to commencement of the use unless stated otherwise.

ENG3. Undertake Engineering designs and construction in accordance with the Planning Scheme, Council's standards, relevant design guides, and Australian Standards.

ENG4. Be responsible for the full cost of any alterations necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

ENG5. Submit to Council, certification from a suitably qualified Engineer (RPEQ) that the works have been undertaken in accordance with the Approved Plans and specifications and to Council's requirements, prior to commencement of the use.

**MAINTENANCE**

ENG6. Maintain all works that will become Council infrastructure for a period of 12 months (maintenance period) from the date of on-maintenance. Any defective works must be rectified within the maintenance period.

ENG7. Provide Council with a maintenance bond in an acceptable form equal to 5% of the value of Council's infrastructure prior to commencement of the maintenance period.

**LOCATION, PROTECTION AND REPAIR OF DAMAGE TO COUNCIL AND PUBLIC UTILITY SERVICES INFRASTRUCTURE AND ASSETS**

ENG8. Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG9. Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damages immediately upon completion of works associated with the development.

**CONSTRUCTION AND NUISANCE MANAGEMENT PLAN**

ENG10. Submit to Council for endorsement, a Construction and Nuisance Management Plan for approved development works for the site. The Plan is to cover where applicable, the following:

a) air quality management;
b) noise and vibration management;
c) storm water quality management;
d) erosion and sediment management;
e) vegetation management;
f) waste management;
g) complaint management;
h) community awareness;
i) preparation of site work plans;
j) workers' car parking arrangements; and
k) traffic control during works.

**Timing**: Prior to commencement of works.

ENG11. Implement the approved Construction Management Plan at all times during construction of the development.

ENG12. Ensure a legible copy of the approved Construction Management Plan is available on-site at all times during construction and earthworks.

**STORMWATER MANAGEMENT**

ENG13. Submit to Council for approval, a Stormwater Management Report (including drawings), prepared by an RPEQ, covering:

1) Stormwater diversion drains being suitably sized to accommodate runoff from the sheds and associated areas. Diversion drain outlets shall be clear of any Effluent Disposal Area, and shall not drain to a road reserve; and
2) If proposed, how overland stormwater, including from upstream catchments, will be managed to avoid contamination with water from the piggery site/operations; and

3) That all downstream properties, including road reserves will be protected from stormwater 'nuisance', from increased discharge rates, increased velocity, and concentration. Identify measures to be implemented to achieve 'no nuisance' if required.

**Comment**: The Stormwater information previously provided was not considered to adequately address Councils queries, and further information is sought.

ENG14. Provide overland flow paths that do not adversely alter the characteristics of existing overland flows, or create a nuisance, on other properties.

**WATER SUPPLY**

ENG15. Provide a potable water supply to meet the needs of the development for staff and visitors.

**ON-SITE WASTEWATER DISPOSAL**

ENG16. Connect the development to an on-site wastewater disposal system, in accordance with *Australian Standard AS1547 – 2012: On-site Domestic Wastewater Management* and the Queensland Plumbing and Wastewater Code.

ENG17. Obtain a Development Permit for Plumbing Works for the on-site sewerage treatment system.

**WASTE AND ODOUR MANAGEMENT**

ENG18. Provide solid and liquid waste management in accordance with AgDSA Development Assessment Report Rev A, dated 13/9/21.

ENG19. In the event that bonafide complaints are received by Council in relation to odour emissions produced from the site, and the use is determined to not being carried out in accordance with the conditions of this approval, including the management strategies set out in the AgDSA Development Assessment Report Rev A, dated 13/9/21 report, Council reserves the right to require the applicant to re-assess waste and odour management procedures already in place. In this instance, the applicant may be required to undertake a further assessment on waste and odour management through a third party and implement any recommendations by a date agreed by the Council.

**TRADE WASTE DISPOSAL (WASH DOWN BAY)**

ENG20. The business must ensure that:

a) maintenance and cleaning of equipment (including vehicles and plant) are carried out in Wash Down Bays, or an area where contaminants cannot be released into stormwater drainage, a roadside gutter, a water course or onto unsealed ground;
b) any spillage of contaminants is cleaned up immediately by a method other than hosing, sweeping or otherwise releasing the contaminants into stormwater drainage, a roadside gutter or a water course; and
c) incidental rainfall and overland flow of stormwater do not contact contaminants (for example, areas with contaminants should be roofed or protected by diversion drains).

ENG21. Spillage of all chemicals and other liquid contaminants must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

ENG22. Where regulated waste is removed from the premises, records must be kept of the following:

a) the date, quantity and type of waste removed;

b) the name of the waste transporter and/or disposal operator who removed the waste; and
c) the intended treatment/disposal destination of the waste.

**HAZARDOUS CHEMICAL & FUEL STORAGE**

ENG23. Ensure that all hazardous chemicals are stored and handled in accordance to the *Work Health and Safety Act 2011.*

ENG24. Diesel is to be stored and handled in accordance with *Australian Standard AS1940 - 2004: The Storage and Handling of Flammable and Combustible Liquids*.

**PARKING AND ACCESS - GENERAL**

ENG25. Provide a sufficient number of carparks to meet the demands of the development.

ENG26. Design and construct all driveway and parking areas to provide a dust suppressive gravel.

ENG27. Maintain dust suppression treatment to all internal roadways, and vehicle manoeuvring areas ensuring not to have an adverse impact on adjoining properties.

**VEHICLE ACCESS - TURNOUT**

ENG28. Design and construct vehicle turnouts in accordance with Council's Standard Drawing No. 00049 Rev B.

**ROADWORKS AND PEDESTRIAN SAFETY**

ENG29. Install signage for all works on or near roadways in accordance with the Manual for Uniform Traffic Control Devices – Part 3, Works on Roads.

**TRANSPORT ROUTE**

ENG30. All heavy vehicles traveling to/from the development shall use the following route, and vice versa:

- Kratzmanns Road from the Murgon-Gayndah Road to Morgans Road;
- Morgans Road from the intersection with Kratzmanns Road, through to the site access at 592 Morgans Road, Windera; and
- Mcantee Road between the proposed site accesses shown on AgDSA Drawing No A001.2 Rev A, and A002.1 Rev A. Using any other part of Mcantee Road in not permitted.

**B-DOUBLE ROUTE**

ENG31. No part of the Transport Route is permitted for use by B-Doubles, and shall not be used by B-Doubles, unless an approval for the route to be used by multi-combination vehicles is obtained from the National Heavy Vehicle Regulator prior to allowing access to Multi-Combination vehicles via above road section. Please refer to the following link for more information: https://www.nhvr.gov.au/road-access/access-management/applications-and-forms. Any future approval may be conditioned with further road upgrade requirements.

**ROAD UPGRADING**

ENG32. The applicant shall undertake the following road upgrades:

1) Windera Creek causeway and approaches:
   a) Widen the pavement on the approaches to the Windera Creek causeway to enable safe passing of the largest expected vehicle between Ch1.56km to Ch1.99km (approximately);
   b) Installation of a ‘Give Way’ sign and line marking on the westbound approach of the causeway, ensuring that appropriate sight distance requirements are achieved; and

c) Remove vegetation to improve sight distance as generally shown in RMA report Traffic Impacts Assessment – 592 Morgans Road, Windera dated 23/12/2021 Figure 7-2.

2) Upgrade the intersection of Morgans Road and Kratzmanns Road generally in accordance with RMA report Traffic Impacts Assessment – 592 Morgans Road, Windera dated 23/12/2021 Figure 7-3. The intersection shall accommodate the turning movements of the largest expected vehicle, including pavement widening and bitumen sealing. Trees and vegetation on Morgans Road and Kratzmann's Road shall be removed to achieve sight distance requirements;
3) The vertical curves on Morgans Road at approximately 200m, and 700 - 800m, north of the Kratzmanns Road intersection shall be widened to a 7m bitumen seal on an 8m pavement formation (including tapers and linemarking), where Stopping Sight Distance is not available;
4) Vegetation on the inside of the Kratzmanns Road intersection shall be cleared to improve sight distance; and
5) Upgrade Mcantees Road, between the two proposed access points to McAntees Road for Lot 202 SP251979 and Lot 49 MZ555, to the following standard:
   a) 7m bitumen seal on an 8m pavement formation;
   b) Upgrades to the vertical and horizontal alignment to Austroads requirements;
   c) Widening to accommodate the manoeuvring of the largest expected vehicle where necessary; and
   d) Drainage structures, and improvements to minimise erosion risk.

**Timing**: Prior to Commencement of Use

**ELECTRICITY AND TELECOMMUNICATION**

ENG33. Connect the development to electricity and telecommunication services.

**EARTHWORKS - GENERAL**

ENG34. Earthworks per site involving cut or fill with a nett quantity of material greater than $50m^3$, requires an Operational Work application.

ENG35. Undertake earthworks in accordance with the provisions of *Australian Standard AS3798 – 2007: Guidelines on Earthworks for Commercial and Residential Developments.*

**EARTHWORKS - RETAINING STRUCTURES AND BATTERS**

ENG36. Ensure retaining walls and earthworks batters designs do not adversely affect adjoining properties or services within the vicinity.

ENG37. Ensure batters do not exceed a maximum slope of 25% (1 in 4).

ENG38. Contain any batters wholly within the proposed development site. Fill cannot be placed on adjacent properties without providing Council with written permission from the respective property owner(s).

ENG39. Design and construct all retaining walls and associated footings in accordance with *Australian Standard AS4678 - 2002: Earth-retaining Structures* and without encroachment onto adjoining properties or public land.

**EARTHWORKS**

ENG40. Submit to Council, detailed engineering drawings and information with the Operational Work application including, but not limited to the following:
   a) long and cross sections of proposed cut/fill and retaining walls as applicable;
   b) existing and proposed surface levels;

c) proposed drainage works to accommodate existing overland flows;
d) proposed haulage route(s) that will be used; and
e) details identifying the source/disposal site(s) for material imported/exported. The site(s) must have a current development approval enabling them to export/accept any material.

ENG41. Obtain Council approval for the haulage truck sizes and the final haul route(s) prior to commencement of any approved works.

**EROSION AND SEDIMENT CONTROL - GENERAL**

ENG42. Ensure that all reasonable actions are taken to prevent sediment or sediment laden water from being transported to adjoining properties, roads and/or stormwater drainage systems.

ENG43. Remove and clean-up sediment or other pollutants in the event that sediment or other pollutants are tracked/released onto adjoining streets or stormwater systems, at no cost to Council.

**ADVICE**

ADV1. Section 85(1)(a) of the *Planning Act 2016* provides that, if this approval is not acted upon within a period of six (6) years, the approval will lapse.

ADV2. The general environmental duty under the *Environmental Protection Act 1994* prohibits unlawful environmental nuisance cause by noise, aerosols, particles, dust, ash, fumes, light, odour or smoke beyond the boundaries of the premises during all stages of the development, including earthworks, construction and operation.

ADV3. Where dangerous goods are stored on site, compliance with *Queensland Work Health and Safety Act 2011* is required at all times.

ADV4. The Department of Agriculture and Fisheries issued an Environmental Authority (Permit Number: 2021-28) pursuant to the *Environmental Protection Act 1994* that takes effect once the development application is approved.

ADV5. This approval includes a concurrence agency response with conditions from the Department of State Development, Infrastructure, Local Government and Planning – Reference: 2109-24865 SRA and dated 14 December 2021.

ADV6. All reasonable and practicable measures must be taken to ensure that no harm is caused to Aboriginal cultural heritage (the *"cultural heritage duty of care"*). The cultural heritage duty of care is met if the development is conducted in accordance with gazetted cultural heritage duty of care guidelines. Further information on cultural heritage, together with a copy of the duty of care guidelines and cultural heritage search forms, may be obtained from www.datsip.qld.gov.au.

ADV7. Attached for your information is a copy of Chapter 6 of the *Planning Act 2016* as regards Appeal Rights.

ADV8. The *Biosecurity Act 2014* includes a general biosecurity obligation on persons to prevent or minimise the impact of biosecurity risks.

ADV9. Infrastructure charges are now levied by way of an infrastructure charges notice, issued pursuant to section 119 of the *Planning Act 2016*.

ADV10. Council is offering a reduction in infrastructure charges payable through the development incentive scheme which is available between 1 January 2026 and 31 December 2027. Eligible development under this scheme is required to be completed by 31 December 2027.

For further information or application form please refer to the rules and procedures available on Council's website.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**Attendance**
At 11.28am Helen Floyd entered the meeting.
At 11.28am Helen Floyd left the meeting.

**MOTION**

**RESOLUTION 2026/402**

Moved: Cr Jane Erkens
Seconded: Cr Deb Dennien

That Council adjourn for a meeting with the Honourable David Littleproud MP at 11.32am.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**RESUME MEETING**

**RESOLUTION 2026/403**

Moved: Cr Heath Sander
Seconded: Cr Deb Dennien

That the meeting resume at 1.40pm.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 13.5 LIST OF CORRESPONDENCE PENDING COMPLETION OF ASSESSMENT REPORT

**RESOLUTION 2026/404**

Moved: Cr Danita Potter
Seconded: Cr Linda Little

That the List of Correspondence pending completion of Assessment Report as at 10 March 2026 be received and noted.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 13.6 DELEGATED AUTHORITY REPORTS (1 FEBRUARY 2026 TO 28 FEBRUARY 2026)

**RESOLUTION 2026/405**

Moved: Cr Ros Heit
Seconded: Cr Heath Sander

That South Burnett Regional Council note and receive the Delegated Authority Report, for the month of February 2026.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 14 INFRASTRUCTURE

**Attendance**
At 1.41pm Wendy Kruger joined the meeting.
At 1.41pm Wendy Kruger left the meeting.

## 14.1 NEW PLAYGROUND FOR MEMERAMBI

**RESOLUTION 2026/406**

Moved: Cr Ros Heit
Seconded: Cr Linda Little

That South Burnett Regional Council:

- install a Mouse Wheel at Memerambi on the Kingaroy to Kilkivan Rail Trail and to allocate additional $24,292.00 from the 26/27 capital and general operations program.
- submit a funding application for the shade structure under the Queensland Government Games On Program and make a co contribution as required.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 14.2 REHABILITATION STUDY ON KOALA HABITAT ON BURRANDOWAN ROAD, KINGAROY

**RESOLUTION 2026/407**

Moved: Cr Danita Potter
Seconded: Cr Jane Erkens

That South Burnett Regional Council:

1. Remove the surface rubbish from site and;

2. Council seek Expressions Of Interest from incorporated community groups to maintain and rehabilitate part of Lot 331 FY578 Burrandowan Road for Koala habitat.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 14.3 PRINCIPAL CYCLE NETWORK PLAN REVIEW

**RESOLUTION 2026/408**

Moved: Cr Ros Heit
Seconded: Cr Linda Little

That the matter be lifted from the table.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**MOTION**

Moved: Cr Ros Heit
Seconded: Cr Linda Little

1. That Council endorse the below changes to the Principal Cycle Network Plan:
   a) Removal of Future Principal Route between Jacaranda Avenue and Fisher Street, Kingaroy (absorbed into adjoining private land and reserve for park/recreation).
   b) Removal of Future Principal Route from unformed road reserve off Fisher Street to Bunya Highway, Kingaroy (absorbed into private land)
   c) Addition of Principal Route via Queen Street, William Street and Avoca Street into Sports Lane, Kingaroy
   d) Removal of Principal Route between Somerset Street and Harris Road (previous rail corridor which has since been partially absorbed into adjoining private land).
   e) Addition of Tourism Route between Kingaroy and Nanango (Off Kingaroy Cooyar Road via Warren Truss Drive, Geoff Raph Drive, Edenvale South Road, West Coolabunia Road, Semgreens Road, Kunioon Road, and Nanango Brooklands Road);
   f) Addition of Tourism Route between Nanango and Yarraman (via Mill Flat Road, Burnett Street, Old Yarraman Road, Din Din Road, Noora Road, McNeil Street);
   g) Addition of Tourism Rail Trail Route between Yarraman and Blackbutt (via Brisbane Valley Rail Trail from McNeil Street to LG Boundary at Benarkin);
   h) Incorporate feedback from Cr Heit into the submission, as per the following points;

1. South Burnett Rail, link route and BVRT trail principal cycle routes.
2. 7 link bike rides be added as principal cycle routes. Details of them are listed here: Where to cycle - South Burnett Rail Trail
3. Bunya Highway north out of Kingaroy is too dangerous for bikes and the route to the east along Booie Crawford is not an established cycling route.
4. Page 258. The Murgon Barambah road is too dangerous for cyclists. The SBRT link route to Moffatdale Winery is on much safer roads.
5. D'Aguliar Highway south of Kingaroy to Nanango is again far too dangerous for cyclists. And the rail trail link route is a safer alternative.
6. Page 285 - the rail trail be not deleted (point d) as it connects to the link route to Nanango.
7. Cyclist suggestion: The addition of a few roads used by the Weekend at Wondai and Gravel Cartel events. They are a real gravel 'gem' for touring and recreational cyclists to use, and would attract cyclists to the area if they were better promoted. It is suggested all of the following roads are attractive to recreational cyclists due to the light traffic they carry, and their scenic nature. Many of these roads are already partly used by the link trails and would not require any specific 'bike' maintenance, (other than the snaky long grass bit of Klass and Towns between East Wooroolin and Quarry road).
   a. Old Wondai Road,
   b. Tingora Charlestown Road,
   c. Weckers Road,
   d. Transmitter Road,
   e. Hoggs Road,
   f. Klass and Towns, (all the way from Hoggs Road to Birt),

g. Quarry Road

h. East Wooroolin Road

i. Magnussens Road

j. Obels Road

**PREVIOUS RECOMMENDATION AS PRESENTED TO FEBRUARY 2026 MEETING**

That Council endorse the below changes to the Principal Cycle Network Plan:

(a) Removal of Future Principal Route between Jacaranda Avenue and Fisher Street, Kingaroy (absorbed into adjoining private land and reserve for park/recreation).

(b) Removal of Future Principal Route from unformed road reserve off Fisher Street to Bunya Highway, Kingaroy (absorbed into private land)

(c) Addition of Principal Route via Queen Street, William Street and Avoca Street into Sports Lane, Kingaroy

(d) Removal of Principal Route between Somerset Street and Harris Road (previous rail corridor which has since been partially absorbed into adjoining private land).

(e) Addition of Tourism Route between Kingaroy and Nanango (Off Kingaroy Cooyar Road via Warren Truss Drive, Geoff Raph Drive, Edenvale South Road, West Coolabunia Road, Semgreens Road, Kunioon Road, and Nanango Brooklands Road);

(f) Addition of Tourism Route between Nanango and Yarraman (via Mill Flat Road, Burnett Street, Old Yarraman Road, Din Din Road, Noora Road, McNeil Street);

(g) Addition of Tourism Rail Trail Route between Yarraman and Blackbutt (via Brisbane Valley Rail Trail from McNeil Street to LG Boundary at Benarkin);

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**AMENDMENT**

Moved: Cr Ros Heit
Seconded: Cr Heath Sander

That Council endorse the below changes to the Principal Cycle Network Plan:

1. South Burnett Rail, link route and BVRT trail principal cycle routes.
2. 7 link bike rides be added as tourism routes. Details of them are listed here: Where to cycle - South Burnett Rail Trail
3. Bunya Highway north out of Kingaroy is too dangerous for bikes and the route to the east along Booie Crawford is not an established cycling route.
4. Page 258. The Murgon Barambah road is too dangerous for cyclists. The SBRT link route to Moffatdale Winery is on much safer roads.
5. D'Aguliar Highway south of Kingaroy to Nanango is again far too dangerous for cyclists. And the rail trail link route is a safer alternative.
6. Page 285 - the rail trail be not deleted (point d) as it connects to the link route to Nanango.
7. Kingaroy to Kilkivan Rail – Kingaroy to Murgon Section as Principal Cycle Route
8. Okeden Road - Wondai Road to Butler Drive as Principal Cycle Route
9. The following roads as tourism routes

- Linville - Nanango Circuit Road
- Greenwood Creek Circuit Road
- East Nanango Circuit Route
- West Wooroolin Loop
- West Tingoora Loop

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- Gordonbrook Dam Route
- East Wooroolin Loop
- East Tingoora Loop
- East Memerambi Loop
- Boat Mountain Road
- Moffatdale Winery Route

The following roads be removed:

Murgon Barambah road (Tourist Route)

- D'Aguilar Highway (Principal Route) from Peterson Drive to Cairns Street, Nanango
- D'Aguilar Highway (Principal Route), South of Kingaroy from Industrial Avenue to Peterson Drive
- Kingaroy Barkers Creek Road (Tourist Route) from Redmans Road to North Branch Road
- North Branch Road (Tourist Route) –Connecting Booie Crawford Road and Kingaroy Barkers Creek Road

Bunya Highway (Principal Route), North of Kingaroy from Banksia Drive to Booie Crawford Road

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**THE AMENDMENT BECAME THE RESOLUTION**

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**RESOLUTION 2026/409**

Moved: Cr Ros Heit
Seconded: Cr Linda Little

That Council endorse the below changes to the Principal Cycle Network Plan:

1. South Burnett Rail, link route and BVRT trail principal cycle routes.
2. 7 link bike rides be added as tourism routes. Details of them are listed here: Where to cycle - South Burnett Rail Trail
3. Bunya Highway north out of Kingaroy is too dangerous for bikes and the route to the east along Booie Crawford is not an established cycling route.
4. Page 258. The Murgon Barambah road is too dangerous for cyclists. The SBRT link route to Moffatdale Winery is on much safer roads.
5. D'Aguilar Highway south of Kingaroy to Nanango is again far too dangerous for cyclists. And the rail trail link route is a safer alternative.
6. Page 285 - the rail trail be not deleted (point d) as it connects to the link route to Nanango.
7. Kingaroy to Kilkivan Rail – Kingaroy to Murgon Section as Principal Cycle Route
8. Okeden Road - Wondai Road to Butler Drive as Principal Cycle Route
9. The following roads as tourism routes:
   - Linville - Nanango Circuit Road
   - Greenwood Creek Circuit Road
   - East Nanango Circuit Route
   - West Wooroolin Loop
   - West Tingoora Loop
   - Gordonbrook Dam Route
   - East Wooroolin Loop

- East Tingoora Loop
- East Memerambi Loop
- Boat Mountain Road
- Moffatdale Winery Route

The following roads be removed:

- Murgon Barambah road (Tourist Route)
- D'Aguilar Highway (Principal Route) from Peterson Drive to Cairns Street, Nanango
- D'Aguilar Highway (Principal Route), South of Kingaroy from Industrial Avenue to Peterson Drive
- Kingaroy Barkers Creek Road (Tourist Route) from Redmans Road to North Branch Road
- North Branch Road (Tourist Route) –Connecting Booie Crawford Road and Kingaroy Barkers Creek Road
- Bunya Highway (Principal Route), North of Kingaroy from Banksia Drive to Booie Crawford Road

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 15 QUESTIONS ON NOTICE

### 15.1 HERBICIDE SUBSIDY PROGRAM

**RESOLUTION 2026/410**

Moved: Cr Linda Little
Seconded: Cr Heath Sander

That the response to the question regarding Can we research if other neighbouring Councils offer subsidies of 50% on chemicals for residents for use on private properties raised by Councillor Heath Sander be received and noted.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**Attendance**
At 2.12pm James D'Arcy left the meeting.
At 2.12pm Simon Ginn left the meeting.
At 2:13pm Simon Ginn returned to the meeting.

**SUBSIDY PROGRAM FOR CHEMICALS**

**RESOLUTION 2026/411**

Moved: Cr Heath Sander
Seconded: Cr Danita Potter

That Council investigate a subsidy program for chemicals as part of its biosecurity plan and a report to be brought back to the June 2026 Ordinary Meeting.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**Attendance**
At 2.23pm Simon Ginn left the meeting

## 15.2 MONTHLY FINANCIAL STATEMENT

**RESOLUTION 2026/412**

Moved: Cr Heath Sander
Seconded: Cr Linda Little

That the response to the question regarding various expenses raised by Councillor Heath Sander be received and noted.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 15.2.1 QUESTION ON NOTICE - WASH DOWN BAYS

Question on Notice from Cr Heath Sander:

Is all of the material pumped out of the Kingaroy Depot wash down bay classed as contaminated? And do we have the contractor pump out all of the wash down bay material from the other depots at the same time?

## 16 INFORMATION SECTION

Nil

# 17 CONFIDENTIAL SECTION

**RESOLUTION 2026/413**

Moved: Cr Danita Potter
Seconded: Cr Ros Heit

That Council considers the confidential report(s) listed below in a meeting closed to the public in accordance with Section 254J of the *Local Government Regulation 2012*:

## 17.1 Murgon and Wondai Community CCTV Cameras

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

## 17.2 Flood Recovery Management 2026

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

## 17.3 Sale of land at 64-66 Burrows Street, Wondai (being Lot 39 on SP212971)

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

## 17.4 Applications to apply for funding through Secure Communities Partnership Program Round 2

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

## 17.5 Renewal of the Licence to Occupy for Area 10 at the Wondai Aerodrome

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

## 17.6 Award SBRC2526_77 Engineering Asbestos & Leachate

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

### 17.7 Landfill threshold and diversion options

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**Attendance**
At 2.31pm Cr Heath Sander left the meeting.
At 2.31pm Jennifer Pointon joined the meeting.
At 2.35pm Kevin Searle joined the meeting.
At 2.36pm Rebecca Bayntun returned to the meeting.
At 2.50pm Jennifer Pointon left the meeting.
At 2.56pm Kerri Anderson left the meeting.
At 3.04pm Harley Radovic entered the meeting.
At 3.04pm Harley Radovic left the meeting.
At 3.05pm Kevin Searle left the meeting.
At 3.06pm Kevin Searle returned to the meeting.
At 3.10pm Cr Heath Sander returned to the meeting.
At 3.12pm Kevin Searle left the meeting.

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**RESOLUTION 2026/414**

Moved: Cr Danita Potter
Seconded: Cr Heath Sander

That Council moves out of Closed Council into Open Council.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**MOTION**

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**RESOLUTION 2026/415**

Moved: Cr Ros Heit
Seconded: Cr Linda Little

That item 17.4 be moved forward and dealt with after item 17.1.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

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**Attendance**
At 3:48pm Cr Heath Sander having earlier informed the meeting of a prescribed conflict of interest in Items 17.1 and 17.4 and his decision to voluntarily not participate in the decision on this matter, left the place at which the meeting was held, including any area for the public and stayed away while the matter was discussed and voted on.

## 17.1 MURGON AND WONDAI COMMUNITY CCTV CAMERAS

**RESOLUTION 2026/416**

Moved: Cr Ros Heit
Seconded: Cr Deb Dennien

That the matter be lifted from the table

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien and Ros Heit

Against: Nil

**CARRIED 6/0**

**RESOLUTION 2026/417**

Moved: Cr Ros Heit
Seconded: Cr Deb Dennien

That South Burnett Regional Council:

1. Delegates to the Chief Executive Officer to negotiate the transfer of ownership and control of the Wondai and Murgon CCTV infrastructure to Council;
2. Council delegate to the Chief Executive Officer to negotiate the ongoing maintenance of the system until 30 June 2026 with existing suppliers or alternative suppliers where agreement can't be reached.

In Favour: Crs Kathy Duff, Danita Potter, Deb Dennien and Ros Heit

Against: Crs Jane Erkens and Linda Little

**CARRIED 4/2**

## 17.4 APPLICATIONS TO APPLY FOR FUNDING THROUGH SECURE COMMUNITIES PARTNERSHIP PROGRAM ROUND 2

**RESOLUTION 2026/418**

Moved: Cr Deb Dennien
Seconded: Cr Danita Potter

That South Burnett Regional Council submits the following two applications for funding under the Secure Communities Partnership Program Round 2:

1. Project One - CCTV in Wondai and Nanango swimming pools and depots as needed; and
2. Any co-contribution be funded in the 26/27 capital works budget

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien and Ros Heit

Against: Nil

**CARRIED 6/0**

**Attendance**
At 3.52 pm Cr Heath Sander returned to the meeting.

## 17.2 FLOOD RECOVERY MANAGEMENT 2026

**RESOLUTION 2026/419**

Moved: Cr Linda Little
Seconded: Cr Jane Erkens

That South Burnett Regional Council delegate to the Chief Executive Officer to negotiate the inclusion of Project Management and Damage Assessment Service for the Declared Disaster Activation – Queensland Monsoon Trough, Cyclone Koji and Severe Weather Commencing 24 December 2025 with Redfrost Pty Ltd under the current Contract No.SBRCQ 2425_50.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 17.3 SALE OF LAND AT 64-66 BURROWS STREET, WONDAI (BEING LOT 39 ON SP212971)

**RESOLUTION 2026/420**

Moved: Cr Heath Sander
Seconded: Cr Linda Little

That South Burnett Regional Council delegate to the Chief Executive Officer to List the property for sale on the open market with a local real estate agent.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

**Item - 17.4 - Murgon and Wondai Community CCTV Cameras** has been moved to after 17.1

## 17.5 RENEWAL OF THE LICENCE TO OCCUPY FOR AREA 10 AT THE WONDAI AERODROME

**RESOLUTION 2026/421**

Moved: Cr Heath Sander
Seconded: Cr Ros Heit

That South Burnett Regional Council:

1. In accordance with s236(1)(c)(iii) of the *Local Government Regulation 2012*, enters into an agreement for the occupation of Area 10 at the Wondai Aerodrome (part of Lots 3 and 5 on RP83496) for a term of 10 years at current market rent with periodic rent reviews for the term of the agreement.

2. In accordance with s257(1)(b) of the *Local Government Act 2009*, delegates to the Chief Executive Officer the power to negotiate, finalise and execute the agreement.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 17.6 AWARD SBRC2526_77 ENGINEERING ASBESTOS & LEACHATE

**RESOLUTION 2026/422**

Moved: Cr Deb Dennien
Seconded: Cr Heath Sander

That South Burnett Regional Council:

1. Engages SMEC Australia Pty Ltd. for the value of $128,954.43 (excluding GST) for the delivery of tender SBRCQ 25/26-77 – Engineering Services Asbestos Cell & Leachate Collection.
2. Delegate under *s257 1 (b) Local Government Act Qld 2009* to the Chief Executive Officer the power to negotiate, amend and execute the contract on terms and conditions that are acceptable to Council.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

### 17.7 LANDFILL THRESHOLD AND DIVERSION OPTIONS

**RESOLUTION 2026/423**

Moved: Mayor Kathy Duff
Seconded: Cr Ros Heit

That the matter be laid on the table.

In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit

Against: Nil

**CARRIED 7/0**

## 18 CLOSURE OF MEETING

The Meeting closed at 3.57pm.

The minutes of this meeting were confirmed at the Ordinary Council Meeting held on 15 April 2026.

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CHAIRPERSON

## 8 MAYORAL MINUTE

Nil

## 9 NOTICES OF MOTION

Nil

## 10 COUNCILLOR DIVISIONAL UPDATES

Nil

# 11 BUSINESS OUTSTANDING

## 11.1 BUSINESS OUTSTANDING TABLE FOR ORDINARY COUNCIL MEETING

**File Number:** **15-04-2026**

**Author:** **Coordinator Executive Services**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Business outstanding table for the Ordinary Council Meeting as at 10 April 2026.

### SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council Meetings. The current Business Outstanding table for the Ordinary Council Meeting is presented for Councillor's information.

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### OFFICER'S RECOMMENDATION

That the Business Outstanding table for the Ordinary Council Meeting be received for information.

### BACKGROUND

N/A

### ATTACHMENTS

**1. Business Outstanding Table** ⇩

# BUSINESS OUTSTANDING TABLE FOR ORDINARY COUNCIL MEETING

## Meeting Date: 15 April 2026

## Attachment No: 1

| Meeting | Subject | Manager | Resolution | Notes |
|---|---|---|---|---|
| Council 18/03/2026 | Rehabilitation study on Koala habitat on Burrandowan Road, Kingaroy | Meehan, Aaron | **RESOLUTION 2026/407**<br>Moved: Cr Danita Potter<br>Seconded: Cr Jane Erkens<br>That South Burnett Regional Council:<br>1. Remove the surface rubbish from site and;<br>2. Council seek Expressions Of Interest from incorporated community groups to maintain and rehabilitate part of Lot 331 FY578 Burrandowan Road for Koala habitat.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **08 Apr 2026 11:54am Doggett, Tee-Arna**<br>Council to call for expressions of interest in May from community groups. |
| Council 18/03/2026 | Principal Cycle Network Plan Review | Meehan, Aaron | **RESOLUTION 2026/409**<br>Moved: Cr Ros Heit<br>Seconded: Cr Linda Little<br>That Council endorse the below changes to the Principal Cycle Network Plan:<br>1. South Burnett Rail, link route and BVRT trail principal cycle routes.<br>2. 7 link bike rides be added as tourism routes. Details of them are listed here: Where to cycle - South Burnett Rail Trail<br>3. Bunya Highway north out of Kingaroy is too dangerous for bikes and the route to | |

the east along Booie Crawford is not an established cycling route.

4. Page 258. The Murgon Barambah road is too dangerous for cyclists. The SBRT link route to Moffatdale Winery is on much safer roads.
5. D'Aguilar Highway south of Kingaroy to Nanango is again far too dangerous for cyclists. And the rail trail link route is a safer alternative.
6. Page 285 - the rail trail be not deleted (point d) as it connects to the link route to Nanango.
7. Kingaroy to Kilkivan Rail – Kingaroy to Murgon Section as Principal Cycle Route
8. Okeden Road - Wondai Road to Butler Drive as Principal Cycle Route
9. The following roads as tourism routes:
    - Linville - Nanango Circuit Road
    - Greenwood Creek Circuit Road
    - East Nanango Circuit Route
    - West Wooroolin Loop
    - West Tingoora Loop
    - Gordonbrook Dam Route
    - East Wooroolin Loop
    - East Tingoora Loop
    - East Memerambi Loop
    - Boat Mountain Road
    - Moffatdale Winery Route

The following roads be removed:

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| | | | • Murgon Barambah road (Tourist Route)<br>• D'Aguilar Highway (Principal Route) from Peterson Drive to Cairns Street, Nanango<br>• D'Aguilar Highway (Principal Route), South of Kingaroy from Industrial Avenue to Peterson Drive<br>• Kingaroy Barkers Creek Road (Tourist Route) from Redmans Road to North Branch Road<br>• North Branch Road (Tourist Route) – Connecting Booie Crawford Road and Kingaroy Barkers Creek Road<br>• Bunya Highway (Principal Route), North of Kingaroy from Banksia Drive to Booie Crawford Road<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | |
| Council 18/03/2026 | Murgon and Wondai Community CCTV Cameras | Meehan, Aaron | **RESOLUTION 2026/417**<br>Moved: Cr Ros Heit<br>Seconded: Cr Deb Dennien<br>That South Burnett Regional Council:<br>1. Delegates to the Chief Executive Officer to negotiate the transfer of ownership and control of the Wondai and Murgon CCTV infrastructure to Council;<br>2. Council delegate to the Chief Executive Officer to negotiate the ongoing | **08 Apr 2026 11:56am Doggett, Tee-Arna**<br>Currently being actioned. |

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| | | | maintenance of the system until 30 June 2026 with existing suppliers or alternative suppliers where agreement can't be reached.<br><br>In Favour: Crs Kathy Duff, Danita Potter, Deb Dennien and Ros Heit<br><br>Against: Crs Jane Erkens and Linda Little<br><br>**CARRIED 4/2** | |
| Council 18/03/2026 | New playground for Memerambi | Meehan, Aaron | **RESOLUTION 2026/406**<br><br>Moved: Cr Ros Heit<br>Seconded: Cr Linda Little<br><br>That South Burnett Regional Council:<br><br>• install a Mouse Wheel at Memerambi on the Kingaroy to Kilkivan Rail Trail and to allocate additional $24,292.00 from the 26/27 capital and general operations program.<br><br>• submit a funding application for the shade structure under the Queensland Government Games On Program and make a co contribution as required.<br><br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br><br>Against: Nil<br><br>**CARRIED 7/0** | **08 Apr 2026 12:41pm Doggett, Tee-Arna**<br>Report has been presented to Council in March meeting. Have submitted Games On expression of interest for funding for shade sails, awaiting the response to see if a full application is required. |

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| Council 18/03/2026 | Petition - Proposed Truck Stop at existing United Petroleum Site at 17-19 Henry Street Nanango - MCU25/0017 | Pitt PSM, Mark | **RESOLUTION 2026/384**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Heath Sander<br>That the petition be received and referred to the Chief Executive Officer for consideration and report back to a meeting of Council.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **25 Mar 2026 11:05am Hunt, Bree**<br>An acknowledgement letter of council resolution was sent to the petitioner. |
| Council 18/03/2026 | Grant Opportunity - Residential Activation Fund (RAF) - Round 2 | Pitt PSM, Mark | **RESOLUTION 2026/393**<br>Moved: Cr Danita Potter<br>Seconded: Cr Deb Dennien<br>That South Burnett Regional Council:<br>1. Deem the associated Operational Work Road Works (Internal), Stormwater, and Earthworks for the Kingsgrove Living Development Project (73 and 75 Buckingham Street and 48, 50 & 52 Logan Street, Kingaroy) required per the Decision Notice dated 24 December 2025 as essential infrastructure; and<br>2. Prepare and submit a grant application on behalf of the developer Greenidge Pty Ltd ATF The RM and SM Burgess Family Trust for the **Residential Activation Fund – Round 2** opportunity.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb | |

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| | | | Dennien, Heath Sander and Ros Heit<br><br>Against: Nil<br><br>**CARRIED 7/0**<br><br>**RESOLUTION 2026/394**<br><br>Moved: Mayor Kathy Duff<br>Seconded: Cr Ros Heit<br><br>That South Burnett Regional Council delegate to the Chief Executive Officer to prioritise and submit additional Residential Activation Fund applications for Council trunk infrastructure.<br><br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br><br>Against: Nil<br><br>**CARRIED 7/0** | |
| Council 18/03/2026 | Renewal of the Lease for Nanango Rugby League Football Club inc for the Nanango Sportsfield at 6 Wills Street East, Nanango | Anderson, Kerri | **RESOLUTION 2026/399**<br><br>Moved: Cr Jane Erkens<br>Seconded: Cr Heath Sander<br><br>That South Burnett Regional Council:<br><br>1. in accordance with *s236(1)(c)(iii) of the Local Government Regulation 2012*, enter into a lease for the Nanango sportsfield at 6 Wills Street East, Nanango (described as Lots 5-8 on SP194332 and Lots 116-117 on N231) to the Nanango Rugby League Football Club Inc for a term of 10 years.<br><br>2. In accordance with s*257(1)(b) of the Local Government Act 2009*, delegates to the Chief Executive Officer the power | **25 Mar 2026 1:42pm Kruger, Wendy - Reallocation**<br>Action reassigned to Dunstan, Sam by Kruger, Wendy - For action & Completion.<br>**26 Mar 2026 10:28am Dunstan, Sam**<br>26 March 2026 - Letter issued to Rugby League club confirming Council has agreed to enter into a new lease agreement. Brittani drafting up new lease agreement<br>**09 Apr 2026 12:41pm Dunstan, Sam**<br>2 April 2026 - Brittani shared draft new lease with team for review and action. |

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| | | | to negotiate, finalise and execute a lease with the Nanango Rugby League Football Club Inc.<br><br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br><br>Against: Nil<br><br>**CARRIED 7/0** | |
| Council 18/03/2026 | Question on Notice - Undisclosed Amount - Contractural Arrangements | Anderson, Kerri | Cr Danita Potter asked for a reason for the undisclosed amount listed in the contractural arrangements entered into over $200,000. | **25 Mar 2026 1:40pm Kruger, Wendy - Reallocation**<br>Action reassigned to Patch, Craig by Kruger, Wendy - For Action and Response. |
| Council 18/03/2026 | Motion | Meehan, Aaron | **RESOLUTION 2026/411**<br><br>Moved: Cr Heath Sander<br>Seconded: Cr Danita Potter<br><br>That Council investigate a subsidy program for chemicals as part of its biosecurity plan and a report to be brought back to the June 2026 Ordinary Meeting.<br><br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br><br>Against: Nil<br><br>**CARRIED 7/0** | |

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| Council 18/03/2026 | Question on Notice - Wash Down Bays | Meehan, Aaron | Question on Notice from Cr Heath Sander:<br>Is all of the material pumped out of the Kingaroy Depot wash down bay classed as contaminated? And do we have the contractor pump out all of the wash down bay material from the other depots at the same time? | |
| Council 18/03/2026 | Question on Notice - Murgon Free Camp | Meehan, Aaron | Cr Heath Sander asked what the outcome of the legal review was for the Deborah Ross deputation regarding Murgon free camp. | **08 Apr 2026 12:01pm Doggett, Tee-Arna**<br>Final legal review has been completed on signs and rules. Signs are undergoing final amendment and will be ordered and rules updated online. |
| Council 18/03/2026 | Sale of land at 64-66 Burrows Street, Wondai (being Lot 39 on SP212971) | Anderson, Kerri | **RESOLUTION 2026/420**<br>Moved: Cr Heath Sander<br>Seconded: Cr Linda Little<br>That South Burnett Regional Council delegate to the Chief Executive Officer to List the property for sale on the open market with a local real estate agent.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **25 Mar 2026 1:41pm Kruger, Wendy - Reallocation**<br>Action reassigned to Bayntun, Rebecca by Kruger, Wendy - For finalisation and completion.<br>**09 Apr 2026 3:10pm Kruger, Wendy**<br>Applicant has been advised of Council's resolution and property is to be listed on the open market. |
| Council 18/03/2026 | Award SBRC2526_77 Engineering Asbestos & Leachate | Pitt PSM, Mark | **RESOLUTION 2026/422**<br>Moved: Cr Deb Dennien<br>Seconded: Cr Heath Sander<br>That South Burnett Regional Council:<br>1. Engages SMEC Australia Pty Ltd. for the value of $128,954.43 (excluding GST) for the delivery of tender SBRCQ 25/26-77 – Engineering Services Asbestos Cell & Leachate Collection. | **10 Apr 2026 9:34am Everett, David**<br>Tender has been awarded to SMEC and contract is currently under review |

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| | | | 2. Delegate under *s257 1 (b) Local Government Act Qld 2009* to the Chief Executive Officer the power to negotiate, amend and execute the contract on terms and conditions that are acceptable to Council.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | |
| Council 18/03/2026 | BlazeAid | Anderson, Kerri | **RESOLUTION 2026/387**<br>Moved: Mayor Kathy Duff<br>Seconded: Cr Danita Potter<br>That Council delegate to the the Chief Executive Officer to negotiate the engagement of BlazeAid and the cost be included in the third quarter review.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **25 Mar 2026 1:34pm Kruger, Wendy - Reallocation**<br>Action reassigned to Patch, Craig by Kruger, Wendy - For action & completion |
| Council 18/02/2026 | Question on notice - Late Fees | Anderson, Kerri | Question on notice from Cr Ros Heit<br>Can late fees or interest be charged on overdue dog registrations? | **11 Mar 2026 4:21pm Anderson, Kerri**<br>Currently investigating options. Will bring to a future Council Meeting. |
| Council 18/02/2026 | Renewal of the Licence to Occupy for Area 13 at the Kingaroy Airport | Anderson, Kerri | **RESOLUTION 2026/381**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Deb Dennien<br>That South Burnett Regional Council: | **11 Mar 2026 9:14am Dunstan, Sam**<br>Draft lease completed and awaiting review. Valuation to be completed.<br>**09 Apr 2026 3:11pm Kruger, Wendy** |

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| | | | 1. in accordance with s236(1)(c)(iii) of the *Local Government Regulation 2012*, enters into an agreement for the occupation of Area 13 at the Kingaroy Airport (being part of Lot 3 on SP249643) for a term of 20 years at current market rent with periodic rent reviews for the term of the agreement.<br>2. pursuant to section 257(1)(b) of the *Local Government Act 2009*, South Burnett Regional Council delegates to the Chief Executive Officer the power to negotiate, finalise and execute a lease with Miles Gore-Brown.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | Leasee has requested changes which have been approved by CEO. Updated licence is currently being finalised accordingly. |
| Council 18/02/2026 | Question on notice - Storm Water Drainage - Boonenne Court Nanango | Meehan, Aaron | Question on notice from Cr Jane Erkens<br>What actions can be taken to resolve storm water drainage and impacts on adjacent residence? | **06 Mar 2026 11:10am Doggett, Tee-Arna**<br>To be actioned in April 2026.<br>**08 Apr 2026 12:02pm Doggett, Tee-Arna**<br>Meeting was planned for April but has to be rescheduled. |
| Council 18/02/2026 | Question on notice - Length of time contractor has been in place | Anderson, Kerri | Question on notice from Cr Heath Sander<br>How long has the Temporary Project Management contractor been with South Burnett Regional Council? | **11 Mar 2026 4:20pm Anderson, Kerri**<br>Response to be provided in the March Council Meeting |

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| Council 18/02/2026 | Motion - Request State Government Support in Biosecurity | Meehan, Aaron | **RESOLUTION 2026/369**<br>Moved: Cr Ros Heit<br>Seconded: Cr Deb Dennien<br>That South Burnett Regional Council write to the State Governement to improve biosecurity support and funding opportunities and work with local and state agricultural organisations to support this initiative.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **06 Mar 2026 11:11am Doggett, Tee-Arna**<br>Council to draft letter to send to State Government in March 2026.<br>**08 Apr 2026 11:20am Doggett, Tee-Arna**<br>Letter drafted and awaiting approval. |
| Council 18/02/2026 | Research on subsidies of chemicals | Meehan, Aaron | Question on notice from Cr Heath Sander Can we research if other neighbouring Councils offer subsidies of 50% on chemicals for residents, for use on private properties. | **06 Mar 2026 11:10am Doggett, Tee-Arna**<br>Report to Council March Meeting.<br>**08 Apr 2026 12:05pm Doggett, Tee-Arna**<br>To be added to budget discussions. |
| Council 18/02/2026 | Notice of Motion - Introduction of Temporary Planning Instrument | Anderson, Kerri | **RESOLUTION 2026/339**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Danita Potter<br>That South Burnett Regional Council introduce a Temporary Planning Instrument, or review local laws to allow a landowner to reside in a temporary dwelling on their own land, provided it meets relevant health and safety standards until the housing crisis is over.<br>• To be reviewed in two years, after it takes effect<br>.In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb | **12 Mar 2026 2:30pm Donohue, Kimberley**<br>To be included in the Local Law Review - SG |

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| | | | Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | |
| Council 28/01/2026 | Notice of Motion - Inspection of roadside guide posts prior to slashing | Anderson, Kerri | **RESOLUTION 2026/316**<br>Moved: Cr Heath Sander<br>Seconded: Cr Jane Erkens<br>That South Burnett Regional Council amend its procurement conditions to include recoupment for consequential damages by contractors where appropriate and conduct ad hoc auditing of works by contractors.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **12 Mar 2026 12:14pm Kruger, Wendy - Reallocation**<br>Action reassigned to Reidy, Louise by Kruger, Wendy - To be included in future procurement contracts going forward. |
| Council 28/01/2026 | Notice of Motion - Install culvert on Middle Road Proston | Meehan, Aaron | **RESOLUTION 2026/317**<br>Moved: Cr Heath Sander<br>Seconded: Cr Jane Erkens<br>That South Burnett Regional Council investigate improvements on Middle Road Proston, approximately 50m from Hivesville Proston Road and add to the capital works list for consideration in the 2026/2027 budget.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **10 Feb 2026 3:57pm Doggett, Tee-Arna**<br>To be scoped and added for budget discussions.<br>**06 Mar 2026 10:58am Doggett, Tee-Arna**<br>To be scoped and added for budget discussions.<br>**08 Apr 2026 11:57am Doggett, Tee-Arna**<br>To be included in upcoming budget discussions in May. |

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| Council 17/12/2025 | Request from Blackbutt RSL Sub-branch to lease land along the Rail Trail in Blackbutt for a new monument. | Anderson, Kerri | **RESOLUTION 2025/295**<br>Moved: Cr Linda Little<br>Seconded: Cr Danita Potter<br>That South Burnett Regional Council:<br>1. Continue liaising with the Blackbutt RSL Sub-branch to finalise the design of a new commemorative monument which resolves accessibility issues and carparking requirements as part of a greater master plan for the Blackbutt Rail Head to ensure considered and cohesive development of the area<br>2. After the design is finalised, and in accordance with section *236(1)(b)(ii)* of the *Local Government Regulation 2012,* disposes of a valuable non-current asset, by entering in to a lease with the Blackbutt RSL for a term of ten (10) years, over part of Lot 2 on RP32381, for the construction and maintenance of a commemorative monument and gardens.<br>3. In accordance with section *257(1)(b)* of the *Local Government Act 2009*, delegates to the Chief Executive Officer the power to negotiate, finalise and execute the lease.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **19 Jan 2026 9:01am Kruger, Wendy - Reallocation**<br>Action reassigned to Dunstan, Sam by Kruger, Wendy - For Follow up and Action.<br>**20 Jan 2026 8:58am Dunstan, Sam**<br>Meeting with Manager Facilities Parks and NRM and Manager Customer Solutions arranged for 30 January 2026 to discuss the initial access and carparking arrangements for the proposed monument.<br>**20 Jan 2026 4:34pm Dunstan, Sam**<br>Draft letter Council completed. To be reviewed for issue.<br>**11 Mar 2026 9:15am Dunstan, Sam**<br>30 January 2026 - Manager Facilities, Parks and NRM to meet with president to discuss matters relating to drainage and parking<br>**26 Mar 2026 10:31am Dunstan, Sam**<br>26 March 2026 - Manager Facilities, Parks and NRM drafted letter to be issued regarding status of Masterplan and reaffirming details of draft lease to follow after successful discussions relating to drainage and parking matters. |

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| Council 17/12/2025 | Memorandum of Understanding - Boundary Roads | Meehan, Aaron | **RESOLUTION 2025/310**<br>Moved: Cr Ros Heit<br>Seconded: Cr Jane Erkens<br>That South Burnett Regional Council delegate to the Chief Executive Officer to enter into a Memorandum of Understanding with Western Downs Regional Council for the maintenance of boundary roads.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **21 Jan 2026 10:28am Doggett, Tee-Arna**<br>To be finalised in February due to staff leave in December/January.<br>**10 Feb 2026 3:53pm Doggett, Tee-Arna**<br>To be finalised with WDRC in February.<br>**06 Mar 2026 10:55am Doggett, Tee-Arna**<br>Awaiting final copy from WDRC.<br>**08 Apr 2026 11:55am Doggett, Tee-Arna**<br>Awaiting final copy from WDRC. |
| Council 17/12/2025 | Request from Blackbutt RSL Sub-branch to lease land along the Rail Trail in Blackbutt for a new monument. | Meehan, Aaron | **RESOLUTION 2025/295**<br>Moved: Cr Linda Little<br>Seconded: Cr Danita Potter<br>That South Burnett Regional Council:<br>1. Continue liaising with the Blackbutt RSL Sub-branch to finalise the design of a new commemorative monument which resolves accessibility issues and carparking requirements as part of a greater master plan for the Blackbutt Rail Head to ensure considered and cohesive development of the area<br>2. After the design is finalised, and in accordance with section *236(1)(b)(ii)* of the *Local Government Regulation 2012,* disposes of a valuable non-current asset, by entering in to a lease with the Blackbutt RSL for a term of ten (10) years, over part of Lot 2 on RP32381, for the construction and | **20 Jan 2026 3:40pm Petersen, Leanne**<br>Letter has been sent to advise Blackbutt RSL of meeting resolution outcome. , Phoned RSL President 20/1/26 to discuss drainage and all accessibility to the site.<br>**10 Feb 2026 3:59pm Doggett, Tee-Arna**<br>Cr Little & Manager LP met with RSL President on 5/2/26 to discuss car park design.<br>**06 Mar 2026 10:57am Doggett, Tee-Arna**<br>Council is working in partnership with Blackbutt RSL to obtain quotes for carpark design.<br>**08 Apr 2026 11:21am Doggett, Tee-Arna**<br>Letter has been sent to Blackbutt RSL providing an update. |

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| | | | maintenance of a commemorative monument and gardens.<br>3. In accordance with section *257(1)(b)* of the *Local Government Act 2009*, delegates to the Chief Executive Officer the power to negotiate, finalise and execute the lease.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | |
| Council 19/11/2025 | SBCare request for land | Anderson, Kerri | **RESOLUTION 2025/246**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Heath Sander<br>That South Burnett Regional Council:<br>1. In accordance with *section 236(1)(b)(ii)* of the *Local Government Regulation 2012*, enter a non-exclusive Deed of Licence to Occupy with SBCare for use of part of the park area located on part of Lot 87 on RP7952, for a two (2) year term.<br>2. Pursuant to *Section 257(1)(b)* of the *Local Government Act 2009*, South Burnett Regional Council delegates to the Chief Executive Officer the power to negotiate, finalise and execute the Deed of Licence to Occupy with the SBCare on terms and conditions the Chief Executive Officer reasonably considers are satisfactory to Council.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb | **25 Nov 2025 12:23pm Kruger, Wendy - Reallocation**<br>Action reassigned to Bayntun, Rebecca by Kruger, Wendy - For Action & Finalisation.<br>**20 Jan 2026 4:34pm Dunstan, Sam**<br>Deed of Licence to Occupy drafted and is awaiting review<br>**11 Mar 2026 4:24pm Bayntun, Rebecca**<br>Draft Licence sent to SBCare 25/02/2026.<br>**09 Apr 2026 3:06pm Kruger, Wendy**<br>As at 9 April 2026, no response received from SBCare. Final Licence to Offer being prepared and will be sent for signature and execution. |

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| | | | Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | |
| Council 19/11/2025 | Kingaroy Showground Building assessable against the Local Heritage Register | Pitt PSM, Mark | **RESOLUTION 2025/241**<br>Moved: Cr Danita Potter<br>Seconded: Cr Deb Dennien<br>That South Burnett Regional Council:<br>1. *approve* in principle the removal of a Local Heritage Registered Building being the trade hall at the Kingaroy Show Grounds from the Local Heritage Register; and<br>2. that the Chief Executive Officer be delegated to finalise with the Show Grounds Committee any application and/or development approvals required subject reasonable conditions.<br>In Favour: Crs Kathy Duff, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Cr Jane Erkens<br>**CARRIED 6/1** | **22 Jan 2026 10:38am Pitt PSM, Mark**<br>Letter sent to Show Society 15 December advising outcome and asked for date to meet in the new year.<br>**03 Feb 2026 8:36am Hunt, Bree**<br>Have followed up re meeting. Awaiting response.<br>**24 Feb 2026 10:06am Hunt, Bree**<br>Meeting has been scheduled with the President for 12 March 2026.<br>**03 Mar 2026 5:22pm Pitt PSM, Mark**<br>Meeting held with Show Society 2 March to discuss next steps - a follow up Council report to be developed and submitted to council meeting to progress<br>**25 Mar 2026 2:56pm Hunt, Bree**<br>Onsite meeting occurred on the 26 March with Senior Building Certifier and Manager Facilities to look at the asbestos and prepare a report going forward. |
| Council 19/11/2025 | Notice of Motion - Investigate 'Land for Wildlife' | Meehan, Aaron | **RESOLUTION 2025/216**<br>Moved: Cr Danita Potter<br>Seconded: Cr Jane Erkens<br>That South Burnett Regional Council:<br>1. Investigate a 'Land for Wildlife' program<br>2. what would be required for the delivery of a program by a new | **20 Jan 2026 3:39pm Petersen, Leanne**<br>Due to staff shortages investigations are ongoing and a report will be prepared and brought back to Council<br>**10 Feb 2026 3:58pm Doggett, Tee-Arna**<br>Due to staff shortages investigations are ongoing and a report will be prepared and brought back to Council<br>**06 Mar 2026 10:53am Doggett, Tee-Arna** |

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| | | | environmental officer position to support landholders and community involved in protecting the environment; and<br>3. the financial implications it would mean for Council.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | Report expected to be sent to April meeting due to resourcing. |
| Council 19/11/2025 | Tessmanns Road Kingaroy Acquisition of Land | Meehan, Aaron | **RESOLUTION 2025/267**<br>Moved: Cr Deb Dennien<br>Seconded: Cr Linda Little<br>That South Burnett Regional Council delegates to the Chief Executive Officer to negotiate an agreement with landowners and if necessary, commence the compulsory acquisition process to resume the land adjacent to Tessmanns Road.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **09 Dec 2025 10:04am Champney, Kristy**<br>Meeting has been set for early January 2026 re negotiations<br>**16 Jan 2026 1:50pm Champney, Kristy**<br>Meeing was held on 12.01.2026 with land owners to progress acquisition. Additional meetings to be held to finalise item in Late Jan/Feb 2026.<br>**10 Feb 2026 2:05pm Doggett, Tee-Arna**<br>Manager Technical Services met with one of the property owners on 30/12/2026. At this stage Council are continuining to work with property owners to progress land acquisition.<br>**02 Mar 2026 11:01am Doggett, Tee-Arna**<br>Manager Technical Services has had further discussions with property owners, currently still waiting on outcome of discussions.<br>**27 Mar 2026 11:24am Doggett, Tee-Arna**<br>Further talks have been carried out with property owners, currently waiting on one Land Acquisition Agreement to be finalised to progress to survey. |

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| | | | | **08 Apr 2026 12:08pm Doggett, Tee-Arna**<br>All land owners have signed Land Acquisition Agreements, awaiting one notice to be returned. |
| Council 19/11/2025 | Potential Purchase of Community Health Building, Kingaroy | Anderson, Kerri | **RESOLUTION 2025/265**<br>Moved: Cr Deb Dennien<br>Seconded: Cr Danita Potter<br>1. That South Burnett Regional Council resolves to make an offer for the purchase of the Community Health Building, Kingaroy described as Lot 1 on FY2977 from the State of Queensland (Represented by Queensland Health) and<br>(i) Pursuant to Section 257(1)(b) of the *Local Government Act 2009*, the Council resolves to delegate to the Chief Executive Officer the power to negotiate, finalise and execute the sale contracts, transfers and any other documents required to effect the transfer.<br>(ii) Council amalgamate Lot 1 on FY2977 and Lot 2 on SP345948 by way of survey into one lot.<br>(iii) Council to upgrade the switchboard in the Qld Health Building to remove the asbestos board and make electricity supply compliant.<br>In Favour: Crs Kathy Duff, Danita Potter, Deb Dennien and Ros Heit<br>Against: Crs Jane Erkens, Linda Little and Heath Sander<br>**CARRIED 4/3** | **17 Dec 2025 8:38am Kemp, Fiona**<br>Action being relocated to Rebecca Bayntun as part of leasing and land matters.<br>**17 Dec 2025 8:38am Kemp, Fiona - Reallocation**<br>Action reassigned to Bayntun, Rebecca by Kemp, Fiona - Action falls under Land and Leasing matters<br>**20 Jan 2026 4:35pm Dunstan, Sam**<br>Investigation into the process for Council to obtain the building from the State.<br>**12 Mar 2026 12:06pm Kruger, Wendy**<br>Letter drafted to Qld Government - Qld Health<br>**09 Apr 2026 3:12pm Kruger, Wendy**<br>Manager Customer Solutions meeting with Health Property Advisor Friday, 10 April 2026. |

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| Council 19/11/2025 | Investigate the Removal of Weeds and Planting of Trees on Lot 331 FY578 Kingaroy Burrandowan Road for Koala Habitat. | Meehan, Aaron | **RESOLUTION 2025/254**<br>Moved: Cr Linda Little<br>Seconded: Cr Deb Dennien<br>That South Burnett Regional Council investigate community access to Lot 331 FY578 Kingaroy Burrandowan Road, Kingaroy to establish koala habitat through the removal of weeds, slashing of long grass and planting of suitable trees.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **18 Dec 2025 4:50pm Kemp, Fiona**<br>Report to be prepared. Investigations ongoing.<br>**21 Jan 2026 2:21pm Petersen, Leanne**<br>Biosecurity Officers to inspect site in February to review weeds and possible treatment program. Risk Assessment for volunteers working on a old rubbish site to be completed. To commence searches for historical information on the site and its previous use and management.<br>**10 Feb 2026 3:56pm Doggett, Tee-Arna**<br>Report to be presented to Council in March.<br>**06 Mar 2026 10:53am Doggett, Tee-Arna**<br>Report for Council March Meeting.<br>**08 Apr 2026 11:53am Doggett, Tee-Arna**<br>Council to call for expressions of interest in May from community groups. |
| Council 15/10/2025 | Construction of a Formed Road to Lot 29 RP36980 and Lot 10 M5421 Memerambi | Anderson, Kerri | **RESOLUTION 2025/198**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Heath Sander<br>That South Burnett Regional Council<br>1. delegate to the Chief Executive Officer to accept and finalise the formed road to Lot 29 RP36980 and Lot 10 M5421 and<br>2. receive a future report to consider options for naming the road.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter and Heath Sander<br>Against: Crs Deb Dennien and Ros Heit<br>**CARRIED 5/2** | **30 Oct 2025 10:12am Champney, Kristy**<br>Planning and Infrastructure staff meeting to finalise and progress road naming.<br>**21 Jan 2026 10:52am Doggett, Tee-Arna - Reallocation**<br>Action reassigned to Donohue, Kimberley by Doggett, Tee-Arna - Currently being actioned by Planning & Development. |

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| Council 15/10/2025 | Renaming of Mill Street Brooklands | Meehan, Aaron | **RESOLUTION 2025/204**<br>Moved: Mayor Kathy Duff<br>Seconded: Cr Ros Heit<br>That the matter lay on the table.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **21 Jan 2026 2:36pm Doggett, Tee-Arna**<br>Contact to be made with the property owners on Mill St and Old Station Rd, prior to a second Council report being prepared.<br>**10 Feb 2026 3:58pm Doggett, Tee-Arna**<br>Awaiting contact with final land owner, report to come back to Council in March.<br>**06 Mar 2026 10:52am Doggett, Tee-Arna**<br>Council report to March meeting.<br>**31 Mar 2026 9:19am Doggett, Tee-Arna**<br>Council report to April meeting. |
| Council 17/09/2025 | Notice of Motion - Signage notifying road users | Meehan, Aaron | **RESOLUTION 2025/124**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Danita Potter<br>That South Burnett Regional Council<br>1. work with the Department of Main Roads, the Queensland Police Service and Community to erect signs notifying road users of the need to drive to the conditions of the roads and the areas where they are shared with cyclists, horses, horse and carriages, wildlife, livestock, children and pedestrians.<br>2. contact Minister of Transport to request learner drivers be made aware of their obligations to horses and cyclists on the road.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **07 Oct 2025 12:57pm Champney, Kristy**<br>This will be discussed further at the next TAC meeting.<br>**30 Oct 2025 9:50am Champney, Kristy**<br>Draft sign being prepared and identifiying local routes.<br>**21 Jan 2026 3:38pm Doggett, Tee-Arna**<br>General sign to be finalised and installed at Tipperary Flats and advisory signs to be installed on select roads within immediate vicinity of Nanango. It will also be discussed at the TAC Meeting in the last week of January. Aware of what signage is required, but need to finalise the location on the roads in this area.<br>**10 Feb 2026 2:05pm Doggett, Tee-Arna**<br>Tipperary Flats draft design signage plan has been confirmed with Cr Erkens, currently in process of confirming copyright. 8 yellow diamond horse and carriage warning signs currently on order for distribution around Nanango township, locations to be confirmed.<br>**06 Mar 2026 10:51am Doggett, Tee-Arna**<br>Some signs still yet to arrive, once received will meet with Cr to confirm locations. |

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| | | | | **26 Mar 2026 1:48pm Doggett, Tee-Arna**<br>Some signs still yet to arrive, once received will meet with Cr to confirm locations., General Information sign design being worked on with Media team before being sent to supplier. |
| Council 21/05/2025 | Deputation - Deborah Ross | Meehan, Aaron | Deborah Ross's deputation was presented and resolved to present a future report to Council on the issues raised at the Murgon free Camp. | **11 Jun 2025 4:34pm Petersen, Leanne**<br>Council Officers have commenced investigations into the Murgon free camp water and electricity access and utilisation, camping and visitation terms, storage of cars and parking at site.<br>**02 Jul 2025 9:54am Petersen, Leanne**<br>Council Officers inspecting site daily. Reporting of illegal dealings to Policelink. Council Rest Area/Free Camp working group meet to review signage and prepare new signage for Council consideration. Information will be presented August Workshop.<br>**08 Aug 2025 9:37am Champney, Kristy**<br>New signs have been drafted and will be presented at Council Workshop<br>**05 Sep 2025 9:32am Kemp, Fiona**<br>Workshops have been held to work on designs for signs to be used in free camps<br>**05 Nov 2025 2:41pm Kemp, Fiona**<br>Drafts of the signs have been shown at 5/11 Councillor workshop for discussion. Drafts will be sent to Compliance team for their input as well.<br>**16 Jan 2026 1:43pm Champney, Kristy**<br>Will be discussed at Workshop on 21 January 2026<br>**10 Feb 2026 3:55pm Doggett, Tee-Arna**<br>Workshop held, awaiting final legal review before implementation.<br>**06 Mar 2026 10:49am Doggett, Tee-Arna** |

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| | | | | Legal review being finalised.<br>**08 Apr 2026 11:19am Doggett, Tee-Arna**<br>Final legal review has been completed. Signs and Rules being updated. |
| Council 16/04/2025 | Notice of Motion - Investigations | Meehan, Aaron | **RESOLUTION 2025/409**<br>Moved: Cr Heath Sander<br>Seconded: Cr Jane Erkens<br>That the following items be investigated and be considered in the budget and organisational review where applicable:<br>1. Undertake a guidepost and sign replacement and maintenance program across the region for the 2025/2026 financial year;<br>2. Investigate to purchase a woodchipper of suitable size to carry out the removal of tree waste as part of the fleet budget;<br>3. Identify which department is responsible for the regular maintenance of urban storm water pits throughout the region and undertake a regular cleaning regime of access grates to prevent excess flooding potential from any debris that may affect flow; and<br>4. Consideration for Council staff to mow and maintain the Murgon, Wondai, Tingoora, Kingaroy, Nanango and Blackbutt Cemeteries and the large park areas in Tingoora and Memerambi referring back to previous schedules prior to engaging contractors.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien and Heath Sander<br>Against: Cr Ros Heit<br>**CARRIED 6/1** | **15 May 2025 10:55am Champney, Kristy**<br>To be discussed in May/June Budget rounds and actioned through organisational review implementation where appropriate.<br>**30 Oct 2025 9:42am Champney, Kristy**<br>Current services listed are being reviewed as part of organisational service levels.<br>**09 Feb 2026 2:31pm Doggett, Tee-Arna**<br>Current services listed are being reviewed as part of organisation service level review.<br>**06 Mar 2026 10:48am Doggett, Tee-Arna**<br>Current services listed are being reviewed as part of organisation service level review. |

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| Council 19/03/2025 | Development of Tree Management, Maintenance and Planting Policy | Meehan, Aaron | **RESOLUTION 2025/393**<br>Moved: Cr Ros Heit<br>Seconded: Cr Heath Sander<br>That South Burnett Regional Council develop a council controlled tree management, maintenance and planting policy.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **04 Apr 2025 8:07am Kemp, Fiona**<br>A plan is being worked on by the Parks and NRM Coordinator<br>**04 Apr 2025 11:15am Petersen, Leanne**<br>Commenced research on tree maintenance policy and will include in the 25/26 Operational Plan.<br>**05 Nov 2025 2:40pm Kemp, Fiona**<br>Meeting to review this policy will be in the New Year.<br>**21 Jan 2026 2:18pm Petersen, Leanne**<br>Parks Team have completed research on other Council tree maintenance policies. SBRC Draft Policy to be workshoped in near future.<br>**10 Feb 2026 3:55pm Doggett, Tee-Arna**<br>SBRC Draft Policy to be workshopped in March/April 2026.<br>**06 Mar 2026 10:46am Doggett, Tee-Arna**<br>Council workshop for last week in March/first week of April.<br>**08 Apr 2026 11:50am Doggett, Tee-Arna**<br>Council requested workshop for last week of April after school holidays. |
| Council 19/03/2025 | Road Maintenance and Construction Works - Quality Assurance | Meehan, Aaron | **RESOLUTION 2025/399**<br>Moved: Cr Heath Sander<br>Seconded: Cr Linda Little<br>That South Burnett Regional Council monitor quality assurance and materials used on all road maintenance and construction works.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **03 Apr 2025 8:06pm Champney, Kristy**<br>A review of forms and processes for road construction and maintenance is proposed for the 25/26 operational plan.<br>**08 Aug 2025 9:33am Champney, Kristy**<br>Quality Management System audit has commenced<br>**30 Oct 2025 9:36am Champney, Kristy**<br>Council has successfully completed its ISO 9001 audit. Further work needs to be done to review business process through organisational development plan.<br>**10 Feb 2026 4:00pm Doggett, Tee-Arna** |

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| | | | | Council has successfully completed its ISO 9001 audit. Further work needs to be done to review business process through organisational development plan including gravel specification review and workshop.<br>**06 Mar 2026 10:47am Doggett, Tee-Arna**<br>Gravel specification currently being reviewed, including deco mix.<br>**08 Apr 2026 12:05pm Doggett, Tee-Arna**<br>Gravel mix being considered in organisational review. |
| Council 18/12/2024 | Licence to Occupy - Nanango Golf Club Inc. | Anderson, Kerri | **RESOLUTION 2024/265**<br>Moved: Cr Jane Erkens<br>Seconded: Cr Ros Heit<br>That the matter lay on the table.<br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien, Heath Sander and Ros Heit<br>Against: Nil<br>**CARRIED 7/0** | **20 Jan 2025 11:47am Kruger, Wendy - Reallocation**<br>Action reassigned to Bayntun, Rebecca by Kruger, Wendy - To Note for next meeting.<br>**13 Mar 2025 2:59pm Bayntun, Rebecca**<br>Golf Club advised of meeting outcome. Next step to determine best option for securing tenure for access to the golf club across the lot.<br>**20 Jan 2026 4:53pm Dunstan, Sam**<br>18 November 2025 - Quote for Proposed Reconfiguring a Lot - Access Easement received as an RAL >10 years will attract a planning application.<br>**09 Apr 2026 3:08pm Kruger, Wendy**<br>Investigations ongoing. Update to be provided at May 2026 Meeting |
| Council 21/08/2024 | Sublease - Barambah Dragons Inc | Anderson, Kerri | **RESOLUTION 2024/110**<br>Moved: Cr Heath Sander<br>Seconded: Cr Danita Potter<br>That South Burnett Regional Council:<br>1. In accordance with *section 236(1)(b)(ii)* of the *Local Government Regulation 2012* applies to the disposal of a valuable non-current asset by way of entering a sublease for part of Lot 15 on | **27 Aug 2024 2:58pm Donohue, Kimberley - Reallocation**<br>Action reassigned to Jackson, Cathy by Donohue, Kimberley<br>**17 Oct 2024 4:04pm Jackson, Cathy** |

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| | SP104355 to the Barambah Dragons Inc. for a term of 10 years pending approval from the Minister administering the *Land Act 1994*.<br><br>2. Pursuant to *section 257(1)(b)* of the *Local Government Act 2009*, South Burnett Council delegates to the Chief Executive Officer the power to negotiate, finalise and execute the sublease with the Barambah Dragons Inc. on terms and conditions considered satisfactory to Council and in alignment with the *Land Act 1994* and the prescribed terms with the *Land Regulation 2020*.<br><br>In Favour: Crs Kathy Duff, Jane Erkens, Linda Little, Danita Potter, Deb Dennien and Heath Sander<br><br>Against: Nil<br><br>**CARRIED 6/0** | The Department of Resources advised that an additional purpose of Recreation was to be added to the Term Lease before the Minister would be approve any sublease. Council has accepted the terms of the additional purpose and the new conditions have been added to the Term Lease. A surveyor has been engaged to prepare a survey lease plan, once received Council will submit an application for approval of the sublease.<br><br>**12 Dec 2024 10:58am Kruger, Wendy - Reallocation**<br>Action reassigned to Bayntun, Rebecca by Kruger, Wendy - Cathy Jackson no longer employed by Council and all tasks reallocated to Rebecca Bayntun.<br><br>**12 Mar 2025 11:48am Bayntun, Rebecca**<br>Survey Plan received and draft lease to be provided to the club.<br><br>**12 Jun 2025 4:28pm Bayntun, Rebecca**<br>Met with Dept Resources and application must be made for sublease which has started.<br><br>**28 Jul 2025 11:26am Bayntun, Rebecca**<br>Notification received from Dept Resources advising high priority application to deal with this matter and will be attended to in 3-6 months.<br><br>**11 Nov 2025 4:06pm Bayntun, Rebecca**<br>Department provided no objection but with changes. Changes made and preparing lease on new version of Lease template.<br><br>**20 Jan 2026 4:36pm Dunstan, Sam**<br>15 December 2025 - Draft Lease posted to organisation for their signature and return<br><br>**11 Mar 2026 8:30am Dunstan, Sam** |

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| | 7 March 2025 - Response email received from Barambah Dragons - Matthew McCauley stating they would like to proceed with the execution of the lease and aim to have the paperwork completed and returned as soon as possible.<br>**09 Apr 2026 3:09pm Kruger, Wendy**<br>No further response received from Barambah Dragons. Follow up email has been sent from Council's Lease & Lands Officer. |

# 12 EXECUTIVE SERVICES

## 12.1 VISIT SOUTH BURNETT (VSB) UPDATE

**File Number:** **15-04-2026**

**Author:** **Chief Executive Officer**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Update on VSB activities in partnership with South Burnett Regional Council.

### SUMMARY

To update councillors on recent activities and the progress.

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### OFFICER'S RECOMMENDATION

That\ South Burnett Regional Council receive the VSB Partnership Report for Information

### FINANCIAL AND RESOURCE IMPLICATIONS

Allocation made in the 2025/2026 budget for partnership arrangements.

### LINK TO CORPORATE/OPERATIONAL PLAN

GR5 Continue to provide and investigate options to improve out arts, heritage, museums, visitor information centres and tourism infrastructure.

GR6 Advocate for and support of the regions tourism sector through an industry led development of a Tourism Strategy with particular focus on indigenous tourism, adventure tourism, international tourism and high wealth tourism.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Meetings held with VSB representatives and attendance at VSB meet and greets, AGM.

Representatives from the board attended council workshop on 8 April 2026 and gave an update on issues and opportunities.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

Partnership arrangement

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

As per Council resolutions and adopted budget.

### ASSET MANAGEMENT IMPLICATIONS

Not applicable

### REPORT

Partnership report for October 2025 – March 2026 attached for reference.

### ATTACHMENTS

1. **Visit South Burnett Update** ⇩




# VISIT SOUTH BURNETT: REPORT OCTOBER 2025 - MARCH 2026

VISIT SOUTH BURNETT
SOUTH EAST QUEENSLAND

VSB SOUTH BURNETT

# VSB AGM WRAP-UP & INTRODUCING THE 2026 MANAGEMENT COMMITTEE






**Jason Kinsella**
VSB President & Wineries & Pubs



**Gloria Kirkness**
VSB Treasurer - Events



**Mandy Evans**
VSB Secretary & Agritourism



**David Kenny**
Events & Rail Trail



**Neil Black**
Accommodation & Food



**Robyn Dower**
Arts & Culture

At the recent Visit South Burnett Annual General Meeting, apologies were received from a number of invited guests and members, with councillors, council representatives, management committee members and local industry representatives in attendance.

The President's Report reflected on a busy and productive year, noting strong attendance at events across the region, continued membership support, the ongoing "Wouldn't You Like to Be in My Shoes" project, and the positive working relationship with South Burnett Regional Council.

The Treasurer presented the audited financial statements for the 2025 financial year, outlining income received through grants, project funding and Visit South Burnett activities. The audit report was accepted, the auditor was reappointed for the 2025 to 2026 financial year, and the organisation's public liability insurance was confirmed.

As per AGM requirements, all Management Committee positions were declared vacant and nominations were received, with the existing committee re elected. The meeting also included updates on marketing activities, visitor data, the increase in website visitation, Google marketing trials, new visitor itineraries and town brochures, the upcoming 2026 Visitor Guide, and the launch of the Visit South Burnett Members Group.

Broader tourism trends were also discussed, including growth in day trips and overnight visitation, particularly from families, cyclists and grey nomads, highlighting the South Burnett's continued appeal as an affordable and accessible regional destination.

VSB SOUTH BURNETT

# SOUTH BURNETT TOURISM SNAPSHOT
# VISITOR BEHAVIOUR, ECONOMIC CONDITIONS AND STRATEGIC DIRECTION

## Changing Travel Patterns and Visit South Burnett Marketing Response

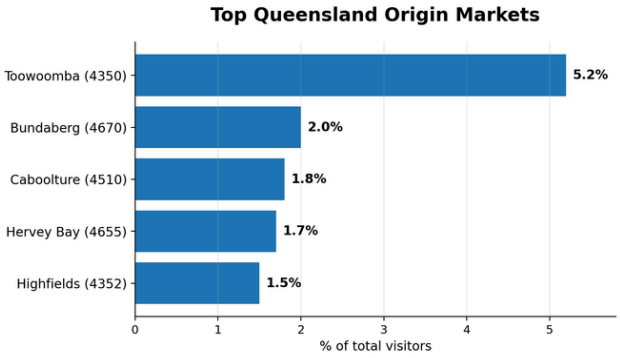
In recent months, Visit South Burnett has had to pivot its marketing approach in response to current economic conditions, particularly fuel prices, interest rates, cost of living pressures and global events that are now starting to influence how and where people travel.
Recent tourism data shows that while Australians are still travelling domestically, overnight trips have increased slightly but overall visitor spending has decreased. This indicates that people are still taking holidays, but they are being more careful with how much they spend while they are away. This is something we are also hearing locally from retail and hospitality businesses, where visitors are still coming, but they are spending more cautiously.

At the same time, fuel prices and supply concerns are starting to affect travel decisions, with reports of Australians cancelling or scaling back interstate travel, particularly around holiday periods such as Easter. What this means in practical terms is that the travel market is shifting. Instead of big interstate holidays, more people are looking for closer, shorter drive holidays.

This is where Visit South Burnett has adjusted its marketing focus. Rather than focusing heavily on long-distance markets, there has been a clear shift toward targeting the closer drive market, particularly within Queensland and nearby regions. The strategy is based around the understanding that people may cancel a long interstate trip, but they will often still take a short break closer to home.

In response to these changes in travel behaviour, Visit South Burnett has adjusted its marketing to better match how people are currently travelling. The focus has been on positioning the South Burnett as an easy short break destination, rather than somewhere people need a long holiday to visit. There has also been a strong emphasis on encouraging visitors not to just pass through for the day, but to stay for a few days and explore the region properly.

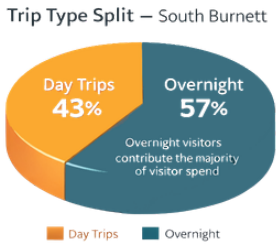
A big part of this strategy has been promoting itineraries and experiences that encourage visitors to move throughout the region, not just visit one town. This includes promoting wineries, the Rail Trail, events, markets, museums, dams, national parks, and small towns as part of a broader South Burnett experience rather than standalone attractions. The South Burnett Rail Trail in particular, has become an important part of this messaging, as it offers a low-cost, low-fuel way for visitors to explore the region. Visitors can park the car, hop on their bike and spend the day travelling between towns, stopping at cafes, pubs and local businesses along the way. In the current climate, experiences like the Rail Trail are very attractive because they are affordable, accessible and allow visitors to stay longer without additional fuel costs.




We have already started to see the impact of rising fuel costs locally, with a number of key events being cancelled due to the increased cost of travel, freight and general event delivery. This has a significant flow-on effect for the South Burnett, as events are one of the major drivers of visitation to the region. When an event is cancelled, it is not just the event itself that is lost, it is the accommodation bookings, the meals at local cafes and pubs, the shopping in local stores, and visits to local attractions that visitors would normally experience while they are here. Events play a major role in bringing visitors to the South Burnett, particularly overnight visitors, and any reduction in events due to rising costs has a direct impact on visitor numbers, length of stay and overall visitor spending across the region.

There has also been a strong push around the idea of “be a tourist in your own backyard”, encouraging locals and nearby residents to explore parts of the South Burnett they may not have visited before, attend local events, visit local attractions and support local businesses. In the current economic climate, local and regional visitation is more important than ever, and this messaging helps support local businesses even when long-distance travel slows.

The overall goal of this approach is not just to bring visitors into the region, but to encourage them to stay longer, explore more towns, and visit more businesses while they are here, so that the economic benefit of tourism is spread across accommodation providers, hospitality, retail, attractions and experiences across the entire South Burnett.
In the current climate, the focus is not just on increasing visitor numbers, but on increasing length of stay, encouraging visitors to travel across the region, supporting local events, and encouraging both visitors and locals to experience more of their own backyard.



**SOUTH BURNETT TOURISM SNAPSHOT**
**VISITOR BEHAVIOUR, ECONOMIC CONDITIONS AND STRATEGIC DIRECTION**

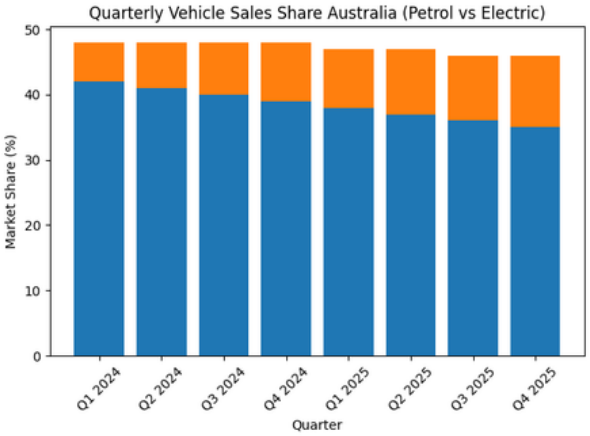
## Electric Vehicles and the Opportunity for the South Burnett

Another important opportunity moving forward is the growth of electric vehicle travel. Queensland has invested in the Queensland Electric Super Highway, which is a network of fast charging stations across the state, including regional locations such as Kingaroy. These charging stations are typically located near town centres, cafes and shops, which means travellers spend time in the town while their vehicle is charging.

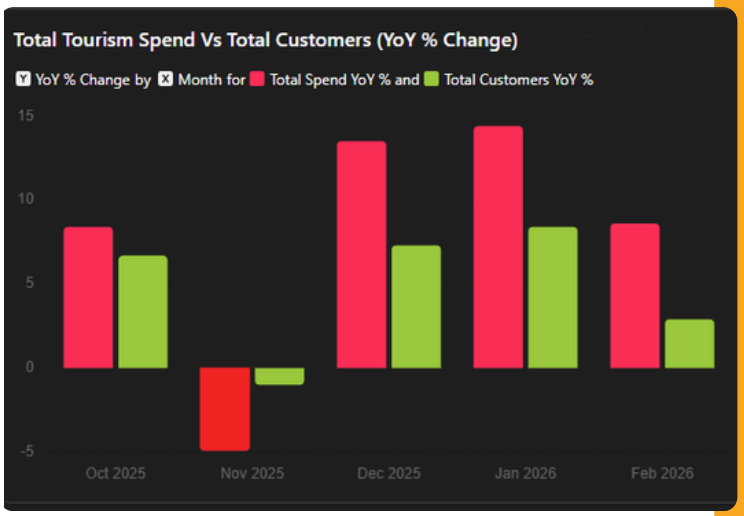
The South Burnett already has EV charging infrastructure across the region, and this is something Visit South Burnett will be promoting more strongly moving forward. Electric vehicle and hybrid vehicle sales in Australia have increased steadily over the past two years, while petrol vehicles have gradually decreased as a percentage of new car sales. This means more travellers on the road are now driving electric or hybrid vehicles, and that number is expected to continue to grow.

EV travellers tend to plan their trips around charging locations and are more likely to stop, spend time in town centres and stay overnight where charging is available. This presents an opportunity for the South Burnett to position itself as an EV-friendly destination and part of a regional touring route, encouraging visitors to stop, stay and explore the region rather than just pass through.

For the South Burnett, EV infrastructure is not just about transport, it is also about tourism and supporting local businesses. As more travellers move to electric vehicles, towns with charging stations are more likely to see increased stopovers, longer stays and more visitor spending over time.




*Source: FCAI VFACTS Reports, Electric Vehicle Council Australia, Australian Bureau of Statistics (2024–2025)




Destination IQ data from October 2025 to February 2026 shows the South Burnett visitor economy remains strong, particularly across the December and January holiday period, which recorded the highest visitor spend. While February reflects a seasonal slowdown following the Christmas and summer holiday peak, total visitor spend still increased compared to the same time last year, indicating continued growth in the region's visitor economy.

Overnight visitors continue to play a critical role in the South Burnett visitor economy, consistently accounting for approximately 57% of all trips. These visitors contribute significantly more to the local economy through accommodation, dining, and extended touring experiences, reinforcing the importance of experiences and marketing that encourage visitors to stay longer rather than visit as a day trip only.

Visitor profiling remains consistent, with the majority of visitors travelling via private vehicle and the largest age group being 65+ travellers, many of whom are retirees. This highlights the continued importance of the drive tourism market to the South Burnett, particularly caravanners, grey nomads, and self-drive holidaymakers.

# HOW WE CONNECT - WEBSITE

## WWW.VISITSOUTHBURNETT.COM.AU




The Visit South Burnett website continues to play a critical role as the region's central digital information hub, providing a single, reliable source for event listings, accommodation, local business information, destination inspiration and regional storytelling. The platform supports both residents and visitors by making it easier to access accurate and up to date information about what is happening across the South Burnett, while also providing an important promotional platform for local operators and event organisers.

During this reporting period, the website was successfully migrated to a new hosting provider to improve overall performance, reliability and future scalability. This upgrade forms part of a broader digital development plan focused on strengthening the region's online presence and improving how information is delivered to visitors. Future stages of this project include the development of a touchscreen compatible version of the website, which can be used at visitor information points, events and key locations across the region to improve access to local information.

Website traffic and engagement remain strong, with consistent user behaviour indicating that visitors are actively exploring the website rather than viewing a single page and leaving. In February, the website recorded 24,662 unique visitors and 175,598 page views, followed by 22,824 unique visitors and 221,321 page views in March. The average number of pages viewed per visit remained steady at 10 pages per session across both months, which is a strong indicator of user engagement and content relevance.

The website is also continuing to attract international interest. In addition to Australia, the top countries visiting the website include China, the United States, Singapore, Japan, Hong Kong, Brazil, Germany, Vietnam and Indonesia. This growing international audience indicates that the South Burnett is gaining increased visibility as a regional destination, particularly among travellers researching Australian experiences and regional travel opportunities.

In response to this increase in international visitation, Visit South Burnett will be implementing further website enhancements, including the introduction of multilingual functionality across key visitor information pages. This will improve accessibility for international users and support the region's continued growth in emerging international markets. These improvements are part of a broader strategy to ensure the website continues to evolve as a modern, accessible and visitor focused platform that supports tourism growth, regional promotion and local business visibility.

Overall, the continued growth in website traffic, strong engagement levels and increasing international interest reinforce the importance of the Visit South Burnett website as the region's primary digital platform. The website works alongside social media, digital advertising and newsletters as part of an integrated marketing approach designed to promote the region, support local businesses and encourage visitors to explore more of the South Burnett

**TOP COUNTRIES**

- China - 45%
- Australia - 43%
- United States
- Singapore
- Japan
- Hong Kong
- Brazil
- Germany
- Vietnam
- Indonesia

**SNAP SHOT:**

**FEBRUARY -**

Unique Visitors - 24,662

Page Views - 175, 598

Avg # of pages/visit : 10

**MARCH -**

UNIQUE VISITORS - 22, 824

PAGE VIEWS - 221, 321

AVG # OF PAGES/VISIT : 10

# HOW WE CONNECT - Meta

## SOCIAL MEDIA SNAPSHOT (META – FACEBOOK AND INSTAGRAM)

(ORGANIC REACH ONLY – NO PAID ADVERTISING)

Visit South Burnett's social media platforms continue to play a key role in promoting the region, sharing events, supporting local businesses and keeping the community informed. Over this reporting period, Meta platforms recorded a combined total of 338,000 views, with 55,800 individual accounts viewing Visit South Burnett content at least once. This includes reels, posts, stories, live video and shared content, demonstrating strong reach across both local and visiting audiences.

Audience numbers across the platforms have grown to 8,127 followers, while engagement remains strong with 22,365 interactions recorded across posts and content. These interactions include likes, comments, shares and other content engagement, indicating that audiences are not only seeing content but actively interacting with it.

Content output has remained consistent, with over 200 posts shared during the reporting period. This consistent activity helps keep the region visible, promotes local events and businesses and encourages ongoing audience engagement.

The Visit South Burnett Members Group also continues to grow, with 379 members using the group to share updates, opportunities, events and industry information. This group is becoming an important communication tool between Visit South Burnett and local operators.

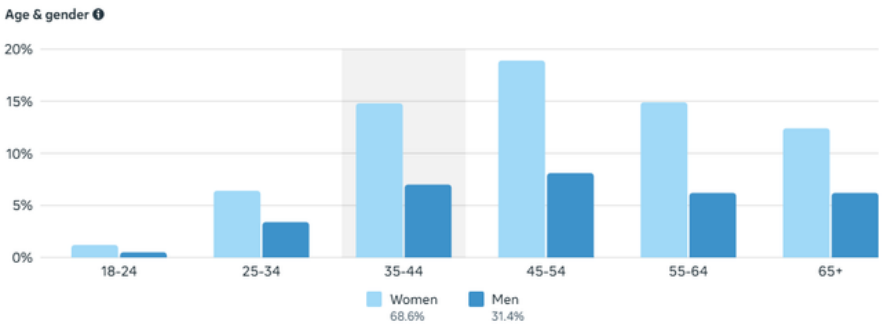
Overall, social media continues to be a highly effective and cost-efficient platform for Visit South Burnett, supporting regional promotion, community engagement and visitor awareness.

### SNAP SHOT:

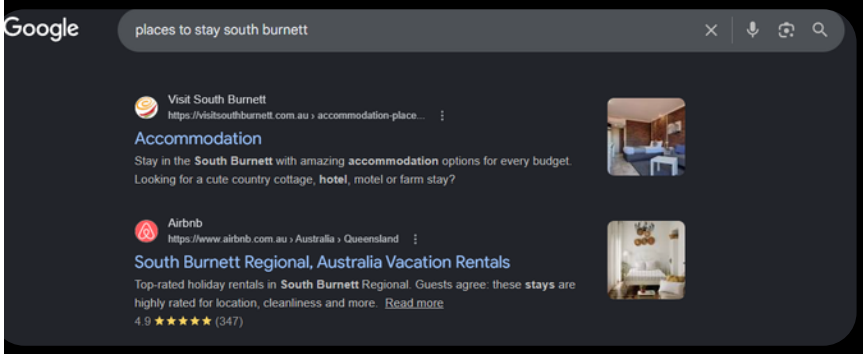
- VIEWS: 350,000
- VIEWERS: 55,800*
- AUDIENCE: 8131
- ENGAGEMENT: 22,365
- OVER 200 POSTS
- VSB MEMBERS GROUP - 379

### TOP CONTENT BY VIEWS



# HOW WE CONNECT - Google ADS




## SNAP SHOT:

Google ads impressions: 1.15m
Google Ads Clicks: 70.4K
Google Search impressions: 966,000

Google Ads continues to play an important role in increasing the visibility of the South Burnett region and driving traffic to the Visit South Burnett website. During this reporting period, Google Ads generated approximately 1.15 million impressions and 70,400 clicks, helping promote local events, experiences, accommodation and destination information to people actively searching for travel ideas and regional experiences.

In addition to paid advertising, the region is also benefiting from strong visibility in organic Google Search results, with 966,000 search impressions recorded. This indicates that Visit South Burnett content is appearing frequently in search results when users are researching travel, events and destinations, helping to build awareness of the region and drive website traffic.

Over the last few months, Visit South Burnett has had to adjust its digital marketing approach in response to changing economic conditions and travel behaviour. With cost of living pressures continuing to influence travel decisions, marketing has shifted to focus more strongly on the South Burnett as an affordable and accessible drive destination. Campaigns have focused on short stays, day trips, events and seasonal experiences, ensuring marketing aligns with how people are currently travelling and planning trips.

This targeted approach allows Visit South Burnett to remain visible and competitive while working within budget limitations, focusing on high intent audiences who are already searching for travel, events and regional experiences. The combination of targeted Google Ads campaigns and strong organic search performance ensures the South Burnett maintains a consistent online presence and continues to reach new audiences who may not have previously considered the region.

Overall, Google Ads remains one of the most effective tools for reaching potential visitors at the planning stage of their trip and continues to play an important role in promoting the region, supporting local tourism operators and driving visitation to the South Burnett.

*Data source: Google Ads analytics, Google Search Console

# ADDITIONAL PROJECT

## WOULDN'T YOU LIKE TO BE IN MY SHOES?

Visit South Burnett's "Wouldn't You Like to Be in My Shoes" project has continued to progress over recent months, with filming taking place across multiple locations throughout the region.

The tireless efforts of our photographer, Joe, and in-house artist, Robyn, have resulted in the creation of a substantial new library of imagery and video content. This content will become an important marketing asset for Visit South Burnett, providing high quality visual material that can be used to promote the region across digital platforms, campaigns, and promotional activities.

As the project moves closer to completion, planning is now underway for the official opening night and display events, which will be announced shortly.

The new **Visit South Burnett gazebo** has now arrived and is already becoming a valuable addition at regional events. Purpose-built and fully branded, the gazebo provides a welcoming space to share visitor guides, maps and local information, as well as host small activities and tastings. To introduce the new gazebo, Visit South Burnett hosted a community meet and greet at the Nanango Firepit, complete with baked potatoes, providing an opportunity to showcase the new setup and connect with the community in a relaxed and welcoming environment. The gazebo will continue to be used at events across the region to help promote the South Burnett and provide a central point for visitor information.






**Membership and Financial Sustainability**

Visit South Burnett has also been focusing on strengthening the organisation itself to ensure long-term sustainability and the ability to continue delivering marketing and tourism support across the region.

As part of this, Visit South Burnett transitioned its membership structure from a financial year model to a calendar year model. This change was made to better align membership with marketing campaigns, reporting periods and project planning, and to provide a clearer structure for members.

With this change, a strong focus has been placed on the 2026 membership drive. This has included direct outreach to local businesses, explaining the benefits of membership, increasing awareness of what Visit South Burnett does for the region, and encouraging greater involvement from tourism operators, businesses and community organisations.

Visit South Burnett has also been working on the introduction of a new financial program to improve financial management, reporting and transparency. This will assist the organisation with budgeting, tracking project expenditure, membership management and reporting requirements, and will help ensure the organisation remains sustainable and well managed into the future.

These internal projects may not be highly visible to the public, but they are important for building a strong and sustainable organisation that can continue to support tourism, events and local businesses across the South Burnett region.

## THE NEW E-MOBILITY LAWS

With the rise in accidents and fatalities in recent years, the Queensland Government has introduced reforms to e-mobility laws, due to come into effect from 1 July 2026.

The new laws include:

1. Riders must be at least 16 years of age to operate an e-mobility device.
2. All riders must hold a licence.
3. A speed limit of 10 km/h on footpaths and shared paths.
4. Increased police powers of supervision, including random breath testing.

The potential impact on regional tourism is significant. Approximately 50% of riders on the South Burnett Rail Trail, Brisbane Valley Rail Trail, and other regional trails use e-bikes. The proposed 10 km/h speed limit may be appropriate for busy city streets and footpaths, but it is not suitable for rail trails in regional areas.

Requiring riders to hold a C-class learner licence may negatively impact both interstate and international tourism, and may also discourage older riders. Banning riders under 16 years of age may affect family tourism, which makes up a large portion of rail trail users in our region. There has been a recent update, with the parliamentary committee now inviting submissions from interested individuals and organisations. Submissions must be made by Friday 10 April to assist in the committee's review and assessment process.

## MEETING / EVENTS / CONVERSATIONS / SEMINARS / WORKSHOPS

### ATTENDED BY THE VISIT SOUTH BURNETT MANAGEMENT COMMITTEE

Visit South Burnett continues to support and attend a wide range of events, workshops, seminars and meetings across the region as part of its ongoing commitment to community engagement. Attending these events provides valuable opportunities to connect with local communities, gain a better understanding of regional activities and priorities, and build strong working relationships with other organisations, committees and community groups. This on the ground involvement also helps identify opportunities for collaboration, development and initiatives that support tourism growth and visitation across the South Burnett. The following is a snapshot of events and activities Visit South Burnett has recently attended and supported.

















- Aust Day Wondai Art Gallery (workshop)
- Murgon Swimming Pool
- Ramsea Nursery
- Bunya Mountains (First Nations)
- Jumping Ant Arts (workshop)
- Nanango Dog Club
- Bunya Mountains (workshop)
- Wondai Swimming Pool
- Mondure Garden Show
- Gordonbrook Mountain Bikers
- Kumbia - Windfarm
- Kumbia Hall Events
- Kingaroy Show Society
- ARISE Festival
- KCCI Meet and Greet
- Southern Queensland Country Tourism
- Numerous Christmas Carnivals/Events
- Nanango RSL
- Wondai Garden Expo
- Evalyn Thompson - TAFE QLD
- Ascot Rangers - Running event July
- Kumbia Hall – FRRR – Volunteer Engagement & Good Governance Seminar
- Kumbia Hall – Grant Writing Workshop
- Attend KCCI Hub – Launch South Burnett Region Identity – Sue Anne, Customer Frame
- Blackbutt Info Centre
- Jessies Well Taromeo
- Nanango Tai Chi
- Wondai Garden Show
- SB Musical Society - Rehearsal & Concert
- Dairy museum Murgon Heritage Day
- Tangled Threads (workshop)
- Waterhole Rocks Nanango
- Netball Nanango
- Hivesville Bee Festival
- Kumbia races
- Kingaroy boxing
- Tennis Kingaroy
- SBCO Concert
- Proston Golf Club
- Rural Sketchers
- Nanango Community Centre
- Dragon Boating on BP Dam
- Kumbia Crosses Property
- Denniens- Horse Riding

## 12.2 ADOPTION OF THE SOUTH BURNETT REGIONAL COUNCIL LEARNING AND DEVELOPMENT POLICY - STRATEGIC013

**File Number:** **15-Apr-2026**

**Author:** **Coordinator Corporate**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Adoption of the South Burnett Regional Council Learning and Development Policy – Strategic013.

### SUMMARY

This policy provides guidance for learning and development for South Burnett Regional Council employees, in relations to training, educational assistance and professional development.

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### OFFICER'S RECOMMENDATION

That the South Burnett Regional Council Learning and Development Policy – Strategic013 be adopted as presented.

### FINANCIAL AND RESOURCE IMPLICATIONS

No direct financial and resource implications arise from this report which have not already been considered in the development of South Burnett Regional Council's (Council) annual budget.

### LINK TO CORPORATE/OPERATIONAL PLAN

| | |
|---|---|
| Corporate Plan 2025-2030 | OR2 Achieve community recognition as an ethical Council that values and practices community consultation, accountable governance, and open and transparent decision-making |
| Operational Plan 2025-2026 | OPE8 - Deliver the Council Policy Governance Framework aligned to strategic planning and relevant legislation incorporating Council's policies, procedures, forms, and factsheets. |
| | OPE10 - Manage and maintain the legal proceedings/legal advice and corporate registers and maintaining the budget for engagement of legal services and promote a high standard of corporate responsibility, transparency and accountability in decision making at all levels of the organisation in the best interest of Council and the community aligning to legislation and Council policy. |

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

The South Burnett Regional Council Learning and Development Policy – Strategic013 has been reviewed by People & Culture, Corporate Services and Executive Leadership Team.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

*Local Government Act 2009* (Qld)

*Queensland Local Government Industry Award - State 2017*

## POLICY/LOCAL LAW DELEGATION IMPLICATIONS

No direct local law or delegation implications arise from this report.

## ASSET MANAGEMENT IMPLICATIONS

No direct asset management implications arise from this report.

## REPORT

This policy provides guidance for learning and development for South Burnett Regional Council employee's, in relation to training, educational assistance and professional development.

## ATTACHMENTS

**1. South Burnett Regional Council Learning and Development Policy - Strategic013** ⇩

**POLICY CATEGORY - NUMBER:** Strategic013
**POLICY OWNER:** People & Culture

**ECM ID:** 2815470
**ADOPTED:** 15 April 2026

# Learning and Development Policy

**NOTE:** Council regularly reviews and updates its policies. The latest controlled version can be obtained from the Policy Register on Council's intranet or by contacting Council's Corporate Services Branch. **A hard copy of this electronic document is considered uncontrolled when printed**.

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## 1. POLICY STATEMENT

This policy provides guidance for learning and development for South Burnett Regional Council ('Council') employees, in relation to training, educational assistance and professional development.

## 2. SCOPE

This policy applies to all Council employees.

## 3. GENERAL INFORMATION

Council is committed to developing Council employees and offering a wide range of opportunities for them to build on existing skills for further growth, these opportunities are accessed through training, educational assistance, and professional development.

### 3.1. Training

Council employees have access to a range of learning and development opportunities that may be offered in a range of methods including internal or external training and online training, both formally and informally.

Attendance at conferences and seminars will only be approved if they are deemed relevant to a Council employee's role and assist them with further skills, or to fulfil their professional development requirements.

### 3.2. Training expenses

Council restrictions on training expenses to ensure operational and budgetary requirements within Council are met may include:

- registration / enrolment fees;
- accommodation;
- travel / parking; and
- meals.

Allowable expenses are provided within the Learning and Development Procedure.

### 3.3. Educational assistance

Council supports a Council employee's effort to undertake academic studies and self-improvement by providing financial and study leave assistance through an Educational Assistance Program ('EAP').

Educational assistance is available for all Council employees (full-time / part-time), except in the following circumstances, where a Council employee:

- is employed on a casual basis;
- has not been employed by Council for 12 months or more (time can vary depending on circumstances of each individual Council employee); or
- is employed on a contractual basis of less than two (2) years duration.

General managers and managers are provided with a professional development allocation on an annual basis, as part of their employment contract, to assist with educational expenses.

### 3.4. Professional memberships

Council will participate in partnership with Council employees in upholding professional memberships, where a Council employee is required to hold professional membership to fulfil their duties, by paying the total cost of the membership. Council employees are not required to pay the membership up-front before seeking payment. Council will either reimburse the Council employee the membership fees, on production of a tax invoice and receipt, or pay the membership on behalf of the Council employee.

General managers and managers are provided with a professional membership allocation on an annual basis as part of their contract of employment.

## 4. DEFINITIONS

**Council employee** means a person employed by Council on a permanent, part time, fixed term or casual basis under award and enterprise bargaining agreements.

**Educational assistance** means an employee benefit in which Council pays for an employee's educational expenses.

**Employment types:**

- **Full-time** means contract of service where the hours of work reach the full quota of ordinary hours;
- **Part-time** means contract of service where the hours of work are less than full time ordinary hours of work;
- **Maximum term** means contract of service for a specified period of time or for a specified task and which (subject to notice of termination requirements) may be terminated at any time by Council or by the Council employee;
- **Casual** means contract of service that is occasional, irregular or short term;
- **Contract** means an employee who is party to a negotiated Common Law Contract for a fixed duration or project.

**Professional development** means learning to earn or maintain professional credentials such as academic degrees to formal coursework, attending conferences, and informal learning opportunities situated in practice.

**Professional membership** means where a Council employee is required to hold a membership to fulfil their duties (for example Certified Public Accountant accreditation, Registered Professional Engineer of Queensland)

## 5. LEGISLATIVE REFERENCE

*Local Government Act 2009* (Qld)

*Queensland Local Government Industry Award - State 2017*

## 6. RELATED DOCUMENTS

South Burnett Regional Council Anti-Discrimination & Equal Employment Opportunity (EEO) – Statutory037

South Burnett Regional Council Certified Agreement - Field

South Burnett Regional Council Certified Agreement - Officers

South Burnett Regional Council Employee Conflict of Interest Policy – Statutory033

South Burnett Regional Council Employee Code of Conduct Policy – Statutory011

South Burnett Regional Council Learning and Development Procedure – Procedure005

## 7. NEXT REVIEW

As prescribed by legislation or April 2029.

## 8. VERSION CONTROL

| Version | Revision Description | Adopted Date | ECM Reference |
|---|---|---|---|
| 1 | New Policy | 18 June 2015 | 1478244 |
| 2 | Policy Review | 16 July 2015 | 1617235 |
| 3 | Policy Review - Resolution 2021/411 | 30 June 2021 | 1617235 |
| 4 | Administrative amendment – organisational structure review – resolution 2022/432 | 27 April 2022 | 1617235 |
| 5 | Policy Review | 18 June 2025 | 2815470 |
| 6 | Policy review | 15 April 2026 | 2815470 |

Mark Pitt PSM
**CHIEF EXECUTIVE OFFICER**

Date: 15 April 2026

## 12.3 ADOPTION OF THE SOUTH BURNETT REGIONAL COUNCIL PREVENTION OF SEXUAL HARASSMENT POLICY - STRATEGIC061

**File Number:** **15-Apr-2026**

**Author:** **Coordinator Corporate**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Adoption of the South Burnett Regional Council Prevention of Sexual Harassment – Strategic061.

### SUMMARY

This policy provides a framework for South Burnett Regional Council's commitment to create and maintain a safe, respectful and inclusive work environment that is free from sexual harassment and related to unlawful conduct.

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### OFFICER'S RECOMMENDATION

That the South Burnett Regional Council Prevention of Sexual Harassment – Strategic061 be adopted as presented.

### FINANCIAL AND RESOURCE IMPLICATIONS

No direct financial and resource implications arise from this report which have not already been considered in the development of South Burnett Regional Council's (Council) annual budget.

### LINK TO CORPORATE/OPERATIONAL PLAN

| | |
|---|---|
| Corporate Plan 2025-2030 | OR2 Achieve community recognition as an ethical Council that values and practices community consultation, accountable governance, and open and transparent decision-making |
| Operational Plan 2025-2026 | OPE8 - Deliver the Council Policy Governance Framework aligned to strategic planning and relevant legislation incorporating Council's policies, procedures, forms, and factsheets. |
| | OPE10 - Manage and maintain the legal proceedings/legal advice and corporate registers and maintaining the budget for engagement of legal services and promote a high standard of corporate responsibility, transparency and accountability in decision making at all levels of the organisation in the best interest of Council and the community aligning to legislation and Council policy. |

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

The South Burnett Regional Council Prevention of Sexual Harassment – Strategic061 has been reviewed by People & Culture, Corporate Services and Executive Leadership Team.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

*Anti-Discrimination Act 1991* (Qld)

*Crime and Corruption Act 2001* (Qld)

*Information Privacy Act 2009* (Qld)

*Local Government Act 2009* (Qld)
*Public Interest Disclosure Act 2010* (Qld)
*Public Records Act 2023* (Qld)
*Public Sector Ethics Act 1994* (Qld)
*Sex Discrimination Act 1984* (Cth)
*Work Health and Safety Act 2011* (Qld)
*Work Health and Safety Regulation 2011* (Qld)

## POLICY/LOCAL LAW DELEGATION IMPLICATIONS

No direct local law or delegation implications arise from this report.

## ASSET MANAGEMENT IMPLICATIONS

No direct asset management implications arise from this report.

## REPORT

This policy provides Council's commitment to create and maintain a safe, respectful and inclusive work environment that is free from sexual harassment and related to unlawful conduct.

## ATTACHMENTS

**1. South Burnett Regional Council Prevention of Sexual Harassment Policy - Strategic061**

**POLICY CATEGORY - NUMBER:** Strategic061
**POLICY OWNER:** People & Culture

**ECM ID:** 3397626
**ADOPTED:** 13 April 2026

# Prevention of Sexual Harassment Policy

**NOTE:** Council regularly reviews and updates its policies. The latest controlled version can be obtained from the Policy Register on Council's intranet or by contacting Council's Corporate Services Branch. **A hard copy of this electronic document is considered uncontrolled when printed**.

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## 1. POLICY STATEMENT

This policy provides the framework for South Burnett Regional Council's ('Council') commitment to create and maintain a safe, respectful and inclusive work environment that is free from sexual harassment and related unlawful conduct.

## 2. SCOPE

This policy applies to all Council representatives.

## 3. GENERAL INFORMATION

This policy applies to circumstances including the following:

- interactions between Council representatives;
- interactions between Council representatives and third parties; and
- all aspects of employment, including, but not limited to; recruitment and selection, conditions and benefits, training, promotion, task allocation, shifts, hours, leave arrangements, workload, equipment and transport.

The principles of this policy are:

- strong and consistent leadership where leaders continuously reinforce that relevant unlawful conduct is unacceptable, model safe and respectful behaviour, and foster a safe reporting culture;
- sexual harassment is identified and managed as a psychosocial hazard under Work Health and Safety ('WHS') legislation, and all reasonably practicable steps are taken to eliminate or minimise associated risks;
- relevant unlawful conduct is prevented by addressing gender inequality and unequal power relations as the key drivers and identifying and managing key risk factors;
- early intervention approaches are used, where possible, to address relevant unlawful conduct;
- Council prioritises the safety and well-being of individuals impacted by relevant unlawful conduct;
- action to address relevant unlawful conduct prioritises the rights, needs and wishes of the reporter and will ensure support and procedural fairness is provided to all parties including the alleged harasser;

- Council is committed to upholding the human rights of every individual within our organisation, ensuring dignity, respect, and equality for all;
- Council is committed to ensuring that matters involving relevant unlawful conduct are handled with fairness, impartiality and integrity, in accordance with the principles of natural justice;
- Council is committed to understanding and addressing these intersecting factors to create a more including and equitable workplace for all.

## 4. DEFINITIONS

**Affected person** means a person that is directly impacted, influenced or harmed by an event.

**Alleged harasser** means a person that is accused of engaging in unwelcome, humiliating or intimidating behaviour that has not yet been proven or confirmed.

**Council representative** means all Councillors and Council employees including permanent, casual and temporary employees, apprentices, trainees, contractors, volunteers, and work experience students.

**Psychosocial hazard** means hazard that arises from, or relates to, the design or management of work, the work environment, plant at a workplace, or workplace interactions or behaviours, and may cause psychological harm. Examples include sexual harassment.

Reporter means

**Sex** means the classification of individuals as male or female, primarily based on biological characteristics. This term is used in alignment with the language of the Sex Discrimination Act. The term sex is distinct from gender which relates to socially constructed roles and identities.

**Third party** means a person who is not a fellow Council representative, but who comes into contact with a Council representative in the workplace, or while at work or engaged in work activities (for example, customers, clients, suppliers, patients and members of the public).

**Unlawful conduct** means an action, behaviour or activity that is prohibited, unauthorised or forbidden by law.

## 5. LEGISLATIVE REFERENCE

*Anti-Discrimination Act 1991* (Qld)

*Crime and Corruption Act 2001* (Qld)

*Information Privacy Act 2009* (Qld)

*Local Government Act 2009* (Qld)

*Public Interest Disclosure Act 2010* (Qld)

*Public Records Act 2023* (Qld)

*Public Sector Ethics Act 1994* (Qld)

*Sex Discrimination Act 1984* (Cth)

*Work Health and Safety Act 2011* (Qld)

*Work Health and Safety Regulation 2011* (Qld)

## 6. RELATED DOCUMENTS

South Burnett Regional Council Employee Code of Conduct Policy – Statutory011

South Burnett Regional Council Prevention of Sexual Harassment Procedure – Procedure149

South Burnett Regional Council Public Interest Disclosure Policy – Statutory046

South Burnett Regional Council Workplace Health and Safety Policy – Statutory015

## 7. NEXT REVIEW

As prescribed by legislation or March 2029

## 8. VERSION CONTROL

| Version | Revision Description | Adopted Date | ECM Reference |
|---|---|---|---|
| 1 | New policy | 13 April 2026 | 3397626 |

Mark Pitt PSM
**CHIEF EXECUTIVE OFFICER**

Date: 13 April 2026

# 13 FINANCE & LIVEABILITY

## 13.1 MONTHLY FINANCIAL INFORMATION - MARCH 2026

**File Number:** **15.04.2026**

**Author:** **Coordinator Finance**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Monthly financial report as at 31st March 2026

### SUMMARY

The following information provides Council's current position as at 31st March 2026.

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### OFFICER'S RECOMMENDATION

That the monthly Financial Report including capital works program as at 31st March 2026 be received and noted.

### FINANCIAL AND RESOURCE IMPLICATIONS

Tracking actual revenue and expenditure compared to amended budget as adopted by Council on the 18th February 2026.

### LINK TO CORPORATE/OPERATIONAL PLAN

OR5 Continue to give priority to ongoing financial sustainability and prudent budget management.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Monitored and reviewed by budget managers.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

Monthly financial report prepared in accordance with Section 204 of the *Local Government Regulation 2012*.

The budget review has been undertaken in accordance with Section 170(3) of *Local Government Regulation 2012*.

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

Budget reviews allows expenditure to be incurred by delegation or approval of Council.

Budget prepared considering the Revenue Policy, Debt Policy and Investment Policy actual result is compared to budget.

### ASSET MANAGEMENT IMPLICATIONS

Depreciation is used as a source of funds to enable capital expenditure. The Asset Registers for all Asset Classes will be adjusted as required for capital projects when the expenditure is transferred from Work in Progress.

**REPORT**

- Total Recurrent Revenue is currently sitting at 99% compared to the amended budget.
- This is made up of Recurrent Income currently tracking at:
  - Rates Levies & Charges 102% ■
  - Fees and Charges 89% ■
  - Rental Income 76% ■
  - Interest Received 67% ■
  - Sales Revenue 65% ■
  - Other Income 63% ■
  - Grants, Subsidies, Contributions and Donations 112% ■

- Total Recurrent Expenditure is sitting at 87% compared to the amended budget.
- This is made up of Recurrent Expenditure currently tracking at:
  - Employee Benefits 84% ■
  - Materials and Services 96% ■
  - Finance Costs 75% ■
  - Depreciation 77% ■

- Ratios at the end of March are all within their respective targets.

- Council's capital expenditure program adopted for the financial year was $56.21m. Actual expenditure is currently sitting at $21.04m, which equates to approximately 37.4% of the total amended budget. When taking into consideration commitments of $5.75m, the proposed expenditure is 47.7% of the amended budget.

- Council's current cash holdings at the end of March 2026 were $73.983m with $32.155m of this currently classed as restricted cash. The overall balance is up from last month by $17.899m.

**ATTACHMENTS**

1. **Monthly Financial Report - March 2026** ⇩
2. **Capex Report - March 2026** ⇩
3. **Grant Report - March 2026** ⇩



South Burnett Regional Council

# Monthly Financial Report

March 2026

SOUTH BURNETT
REGIONAL COUNCIL

## Executive Summary

This monthly report is designed to illustrate the interim financial performance and position of South Burnett Regional Council compared to the amended budget, at an organisational level, for the period ended 31 March 2026.

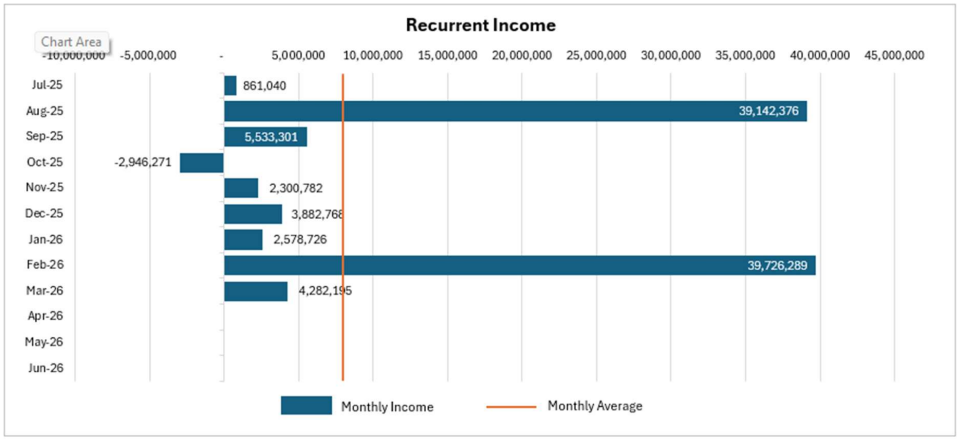
The target benchmark for March is 75%.

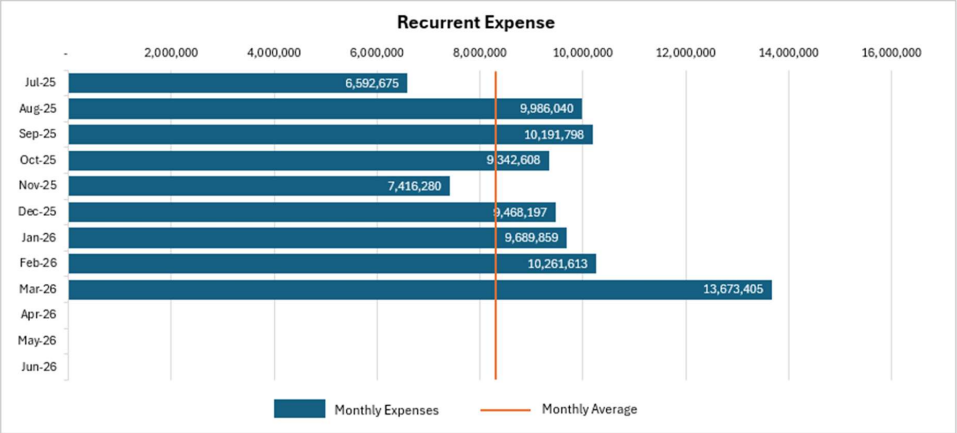
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- Ratios at the end of March are all within their respective targets.
- Council's capital expenditure program adopted for the financial year was $56.21m. Actual expenditure is currently sitting at $21.04m, which equates to approximately 37.4% of the total amended budget. When taking into consideration commitments of $5.75m, the proposed expenditure is 47.7% of the amended budget.

Income and Expenditure Trends:

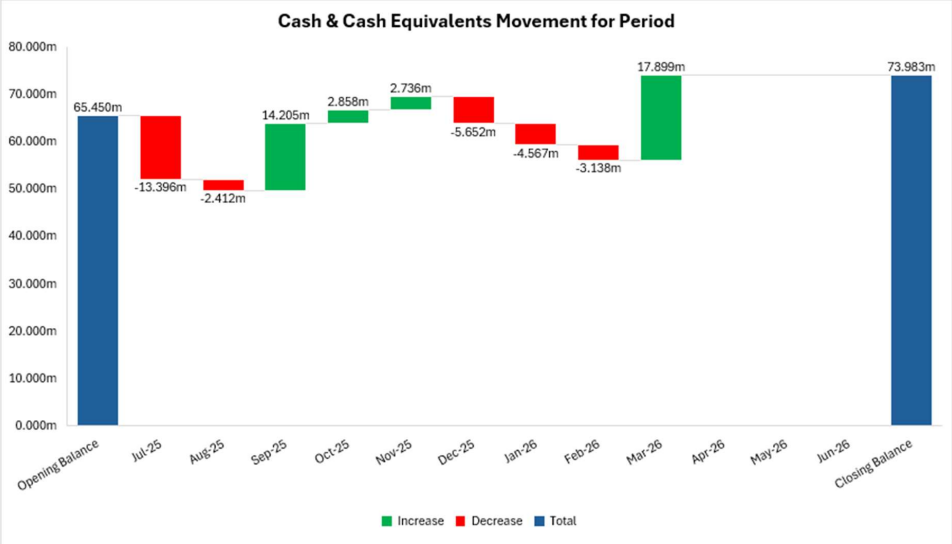




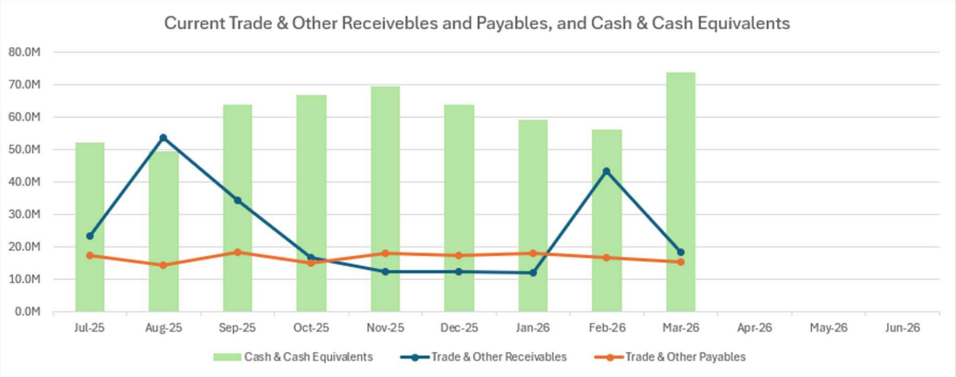

**Profit & Loss - Monthly**

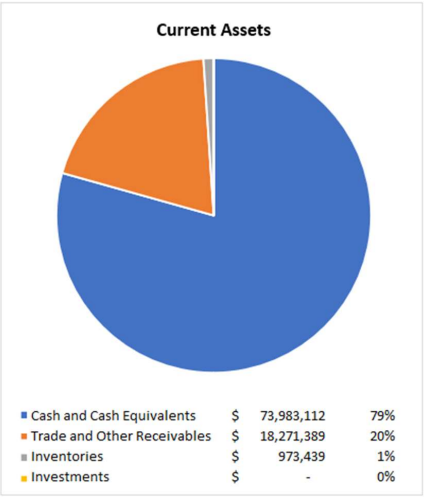
| | Feb-26 | Mar-26 | Movement |
|---|---|---|---|
| Recurrent Income | 39,726,289 | 4,282,195 | (35,444,095) |
| Capital Revenue | 607,228 | 2,210,933 | 1,603,705 |
| Total Income | 40,333,518 | 6,493,128 | (33,840,390) |
| | | | |
| Recurrent Expense | 10,261,613 | 13,673,405 | 3,411,792 |
| Capital Expense | 148,253 | 1,837,399 | 1,689,147 |
| Total Expense | 10,409,866 | 15,510,804 | 5,100,939 |
| | | | |
| **Net Profit/(Deficit)** | **29,923,652** | **(9,017,677)** | **(38,941,329)** |
| Net Operating Result | 29,464,676 | (9,391,211) | (38,855,887) |

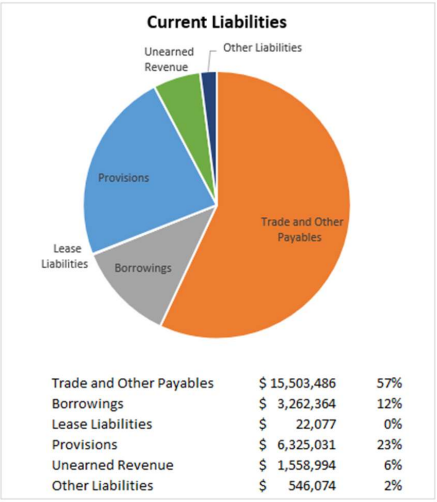
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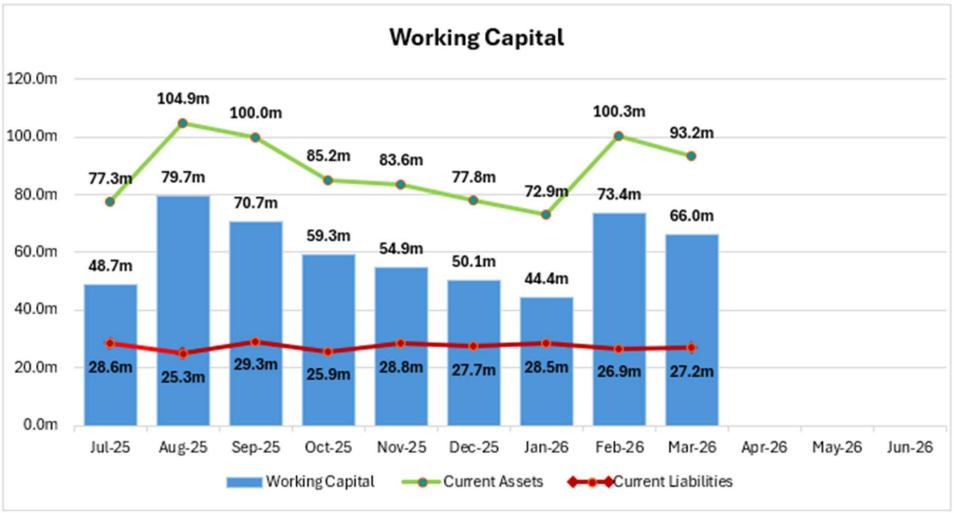



Executive Summary




Executive Summary

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## 1.0 Interim Statement of Financial Performance (Income Statement)

### Statement of Comprehensive Income

as at 31 March 2026
75% of Year Complete

| | 2026 $ | Original Budget $ | Amended Budget $ | Variance % |
|---|---|---|---|---|
| **Income** | | | | |
| **Revenue** | | | | |
| **Recurrent Revenue** | | | | |
| Rates, Levies and Charges | 64,633,411 | 63,638,122 | 63,638,122 | 102% |
| Fees and Charges | 5,814,517 | 6,424,845 | 6,521,845 | 89% |
| Rental Income | 463,961 | 610,999 | 610,999 | 76% |
| Interest Received | 2,046,480 | 3,058,000 | 3,058,000 | 67% |
| Sales Revenue | 2,332,748 | 3,600,000 | 3,600,000 | 65% |
| Other Income | 770,414 | 1,219,700 | 1,219,700 | 63% |
| Grants, Subsidies, Contributions and Donations | 19,299,674 | 8,021,411 | 17,205,864 | 112% |
| | 95,361,205 | 86,573,077 | 95,854,530 | 99% |
| **Capital Revenue** | | | | |
| Grants, Subsidies, Contribution and Donations | 6,365,033 | 12,426,015 | 18,287,072 | 35% |
| **Total Income** | 101,726,238 | 98,999,092 | 114,141,602 | 89% |
| **Expenses** | | | | |
| **Recurrent Expenses** | | | | |
| Employee Benefits | 24,781,802 | 28,780,703 | 29,609,358 | 84% |
| Materials and Services | 39,654,859 | 32,500,740 | 41,158,263 | 96% |
| Finance Costs | 1,218,513 | 1,620,456 | 1,620,456 | 75% |
| Depreciation and Amortisation | 20,967,302 | 27,180,435 | 27,180,435 | 77% |
| | 86,622,476 | 90,082,334 | 99,568,511 | 87% |
| **Capital Expense** | 1,717,167 | (424,000) | (424,000) | -405% |
| **Total Expense** | 88,339,643 | 89,658,334 | 99,144,511 | 89% |
| **Net Result** | 13,386,595 | 9,340,758 | 14,997,091 | |
| **Net Operating Result** | 8,738,729 | (3,509,257) | (3,713,981) | |

### 1.1 Operating Income Statement Split by Department

Council splits its income statement into the following departments – water, wastewater, waste, fleet, and general operations. The revenue and expenditure for each of these departments is monitored throughout the year to see how they are performing compared to their budget. The below provides a snapshot of the departments on their recurrent revenue and recurrent expenditure.

| | Total Revenue | | | | Total Expenditure | | | |
|---|---|---|---|---|---|---|---|---|
| | Actual | Original Budget | Amended Budget | % | Actual | Original Budget | Amended Budget | % |
| Water | $ 13,932,241 | $ 13,627,902 | $ 13,627,902 | 102% | $ 9,881,560 | $ 13,094,696 | $ 13,094,696 | 75% |
| Wastewater | $ 8,174,202 | $ 8,139,101 | $ 8,139,101 | 100% | $ 5,082,247 | $ 6,531,315 | $ 6,531,315 | 78% |
| Waste | $ 9,943,324 | $ 10,164,244 | $ 10,197,463 | 98% | $ 6,827,572 | $ 9,897,847 | $ 9,931,066 | 69% |
| Plant and Fleet | $ 143,938 | $ 199,875 | $ 199,875 | 72% | -$ 1,281,612 | -$ 1,258,604 | -$ 1,258,604 | 102% |
| Genops | $ 63,167,500 | $ 54,441,955 | $ 63,690,189 | 99% | $ 66,112,709 | $ 61,817,081 | $ 71,270,039 | 93% |
| Total | $ 95,361,205 | $ 86,573,077 | $ 95,854,530 | 99% | $ 86,622,476 | $ 90,082,334 | $ 99,568,511 | 87% |

**Revenue**

- All revenue items are currently tracking above the target of 75% except for Plant and Fleet which is sitting at 72%.
- For Water, Wastewater and Waste, this is due to both rates levies being issued for the financial year.
- Plant and Fleet is due to timing in March fuel rebate on the BAS statement.
- Waste is affected by timing in waste disposal revenue as invoices for March have not yet been raised.
- Genops is sitting at 99% which is above the target. This revenue source is affected by income received from Queensland Reconstruction Authority and DTMR for flood restoration works, timing of the second 6 monthly rates notices as well as timing in the Financial Assistance Grant payments.

**Expenditure**

- There are only two areas currently tracking below or on the target of 75% for the month. These are Water and Waste.
- Expenditure for Fleet is affected by timing of yearly registration and insurance bills, higher depreciation costs as well as timing in use of internal plant by departments for the month.
- Genops continues to be affected by the timing in expenditure compared to budget for the various weather events. This will be offset by grant income.
- Genops is also affect by timing in annual expenses such as insurance, workers compensation premiums and annual software licences.

### 1.2 Revenue

#### *1.2.1 Rates Levies and Charges*

This item shows South Burnett Regional Council's total net income from general rates, service charges (water, sewerage and waste) and special charges.

As at 31 March 2026, rates, levies and charges are tracking at 102%. The second six monthly levy was issued in February. The Memerambi Estate levies credit amount relates to refund of interest due to payment of levies.

| Income Stream | Actual | Original Budget | Amended Budget |
|---|---|---|---|
| General Rates | $ 34,396,551 | $ 33,946,020 | $ 33,946,020 |
| Quarry Special Charge | $ 42,095 | $ 27,871 | $ 27,871 |
| Water Charges | $ 13,617,373 | $ 13,235,416 | $ 13,235,416 |
| Sewerage Charges | $ 8,099,669 | $ 8,039,951 | $ 8,039,951 |
| Waste Collection Charges | $ 3,972,722 | $ 3,907,974 | $ 3,907,974 |
| Community Rescue and Evacuation Levy | $ 90,125 | $ 90,000 | $ 90,000 |
| Waste Management Levy | $ 4,415,128 | $ 4,390,890 | $ 4,390,890 |
| Memerambi Estate Levies | -$ 252 | $ - | $ - |
| **Total** | **$ 64,633,411** | **$ 63,638,122** | **$ 63,638,122** |

### *1.2.2 Fees and Charges*

User charges are for the recovery of service delivery costs through the charging of fees to users of Council services. Fees are determined in two categories: regulatory and commercial.



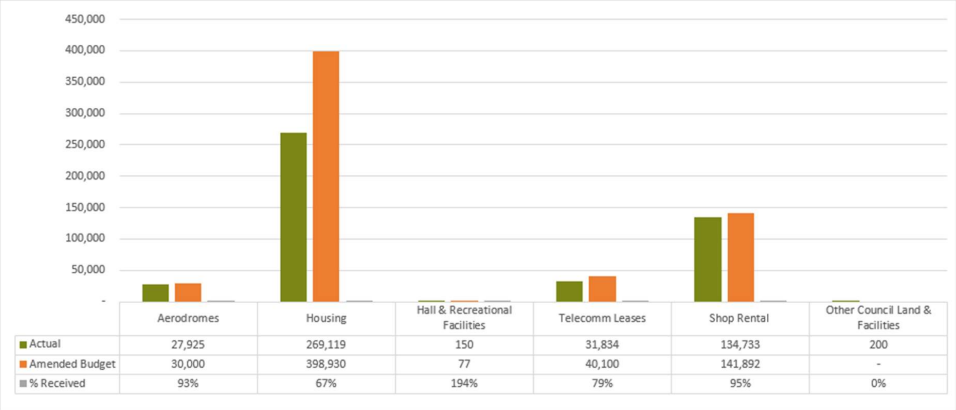

As of 31 March 2026, fees and charges are tracking above target at 89%. March accruals for waste disposal are still to be completed. Main factors affecting the fees and charges figures are:

- Environment and Waste is affected by timing of monthly invoices for waste disposal which is offset by yearly food licences. It has also seen more than expected income from Waste Disposal fees. The Animal Registrations for the year have already been issued for the year.
- Planning and Land Management fees and charges are currently sitting at 119% due to increases in Development Applications and Plumbing and Drainage Fees.

### *1.2.3 Rental Income*

Council operates various facilities from which it derives a rental income such as commercial premises, caravan parks, community housing and airport.

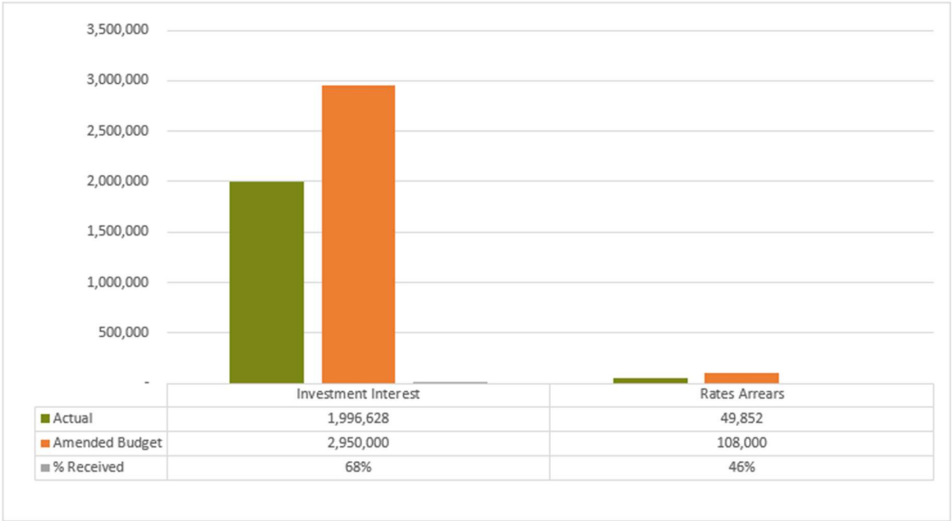
As of 31 March 2026, rental income is tracking at 76% overall. Variances in categories are due to timing of invoicing for various rental and lease arrangements.




| | Aerodromes | Housing | Hall & Recreational Facilities | Telecomm Leases | Shop Rental | Other Council Land & Facilities |
|---|---|---|---|---|---|---|
| Actual | 27,925 | 269,119 | 150 | 31,834 | 134,733 | 200 |
| Amended Budget | 30,000 | 398,930 | 77 | 40,100 | 141,892 | - |
| % Received | 93% | 67% | 194% | 79% | 95% | 0% |

### *1.2.4 Interest Received*

Interest revenue includes interest on investments and rate arrears. As of 31 March 2026, interest received is tracking below target at 67% largely due to lower interest rates so far this financial year.

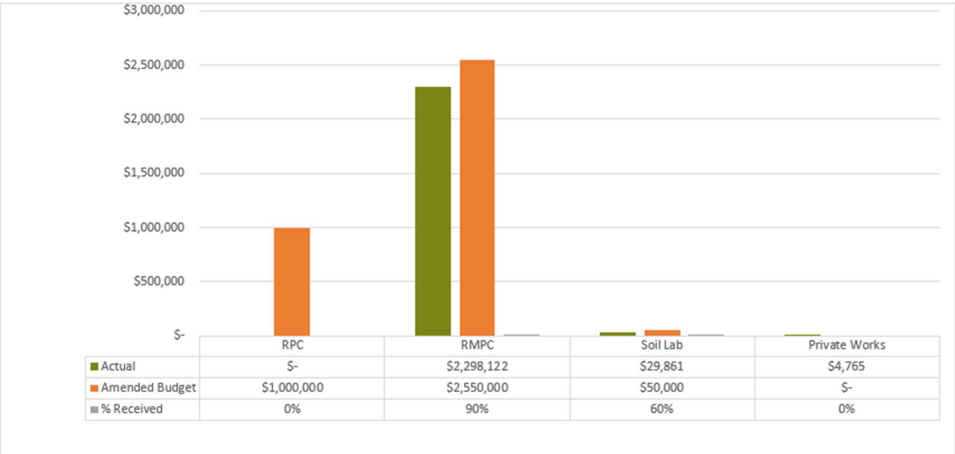



| | Investment Interest | Rates Arrears |
|---|---|---|
| Actual | 1,996,628 | 49,852 |
| Amended Budget | 2,950,000 | 108,000 |
| % Received | 68% | 46% |

### *1.2.5 Sales Revenue*

Sales revenue is income received from undertaking work for Main Roads, private works and recoverable works conducted by the Soil Laboratory. As of 31 March 2026, sales revenue is tracking below target at 65%.

This income stream is largely affected by timing of when RPC and RMPC works for this financial year are scheduled to be performed. RPC works are now not expected to occur in this financial year, an adjustment will be performed at the third quarter budget review.




| | RPC | RMPC | Soil Lab | Private Works |
|---|---|---|---|---|
| Actual | $- | $2,298,122 | $29,861 | $4,765 |
| Amended Budget | $1,000,000 | $2,550,000 | $50,000 | $- |
| % Received | 0% | 90% | 60% | 0% |

### *1.2.6 Other Income*

Other income is sundry income derived from all other sources.

As of 31 March 2026, other income is tracking below target at 63%. Reasons surrounding this can be found below.




| | Agency Income | Fines | Library Sales | Saleyards | Scrap Steel | Tourist Parks | VIC Income | Legal Recovery | Insurance Claims & Workcover | Misc Other |
|---|---|---|---|---|---|---|---|---|---|---|
| Actual | $21,753 | $6,623 | $1,696 | $35,305 | $149,378 | $272,181 | $56,734 | $2,190 | $25,464 | $199,091 |
| Amended Budget | $90,300 | $5,000 | $3,019 | $20,000 | $281,500 | $385,000 | $80,258 | $82,000 | $20,500 | $252,123 |
| % Received | 24% | 132% | 56% | 177% | 53% | 71% | 71% | 3% | 124% | 79% |

- Fines are above target due to fluctuations in number of infringements throughout the year. There is a possibility that this value will decrease in the future if fines are sent to the State Penalties Enforcement Registry (SPERS) for collection.
- Scrap steel is picked up sporadically during the year.
- Legal recovery income which is invoiced during the year based on debt collection activities.
- Agency Income has a timing factor depending on when income is received or billed.

#### *1.2.7 Operational Grants*

Operating grants include all monies received from State and Federal sources for the purposes of funding the delivery of South Burnett Regional Council services to ratepayers.

As of 31 March 2026, operating grants are tracking above target at 112% due to timing in when operational grants are received and spent. Approximately $15.70m of the monies received so far this year relates to funding from Queensland Reconstruction Authority (QRA) for expenditure incurred due to weather events. Contract asset and contract liability movements have been processed for March 2026.

#### *1.2.8 Capital Grants*

Capital grants and contributions include all monies predominantly received from State and Federal government sources for the purposes of funding the capital works program.

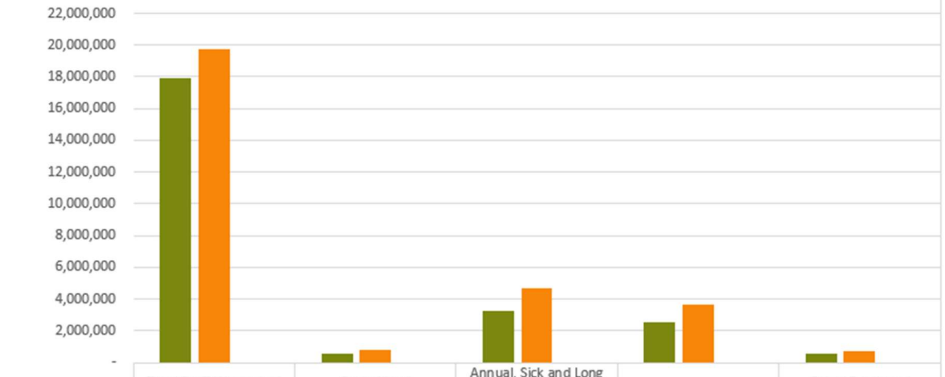
As of 31 March 2026, capital grants are tracking below target at 35%. Contract asset and contract liability movements have been processed for the month.

### 1.3 Expenditure

#### *1.3.1 Employee Benefits*

Employee costs include labour related expenditure such as wages, leave entitlements, WorkCover costs, superannuation, training, personal protective equipment, payroll and fringe benefits taxes.

As of 31 March 2026, employee benefits are tracking above target at 84%. Journals for payroll reconciliations have been started which will fix some entries which were posted to incorrect accounts, this will reduce the staff wage actuals below.




| | Total Staff Wages and Salaries | Councillors' Remuneration | Annual, Sick and Long Service Leave Entitlements | Superannuation | Other Employee Related Expenses |
|---|---|---|---|---|---|
| Actual | 17,910,327 | 544,606 | 3,217,252 | 2,521,330 | 588,287 |
| Amended Budget | 19,750,381 | 805,038 | 4,693,224 | 3,660,715 | 700,000 |
| % Spent | 91% | 68% | 69% | 69% | 84% |

### 1.3.2 Materials and Services

Materials and services cover the purchases of consumables, payments to contractors for the provision of services and utility costs and internal plant charges and recoveries.

As of 31 March 2026, materials and services are tracking above target at 96%.

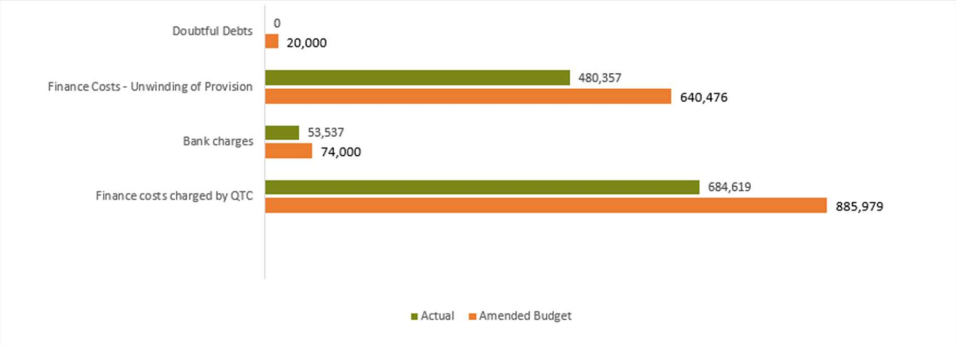
| Description | Actual | Original Budget | Amended Budget | % Spent |
|---|---|---|---|---|
| Donations | 615,469 | 714,610 | 714,610 | 86% |
| Materials | 17,717,584 | 22,458,797 | 23,334,434 | 76% |
| Services | 22,685,327 | 11,948,972 | 18,804,728 | 121% |
| Internal Plant Charges | 6,604,204 | 7,021,345 | 7,947,474 | 83% |
| Internal Plant Recoveries | - 7,967,725 | - 9,642,983 | - 9,642,983 | 83% |
| | **39,654,859** | **32,500,740** | **41,158,263** | |

- A majority of variances seen in the materials category so far relate to timing of when invoices are received including timing of yearly insurances and fleet registrations.
- Expenditure of $15.35m is associated with the various weather events and will be offset by income from Queensland Reconstruction Authority (QRA).
- There is a degree of timing for waste collection invoices as they have not yet been received.

### 1.3.3 Finance Costs

Finance costs relate to interest charged by financial institutions on funds borrowed as well as bank fees and the unwinding of the discount for landfill and quarry provisions.

As of 31 March 2026, finance costs are tracking on target at 75%.




### 1.3.4 Depreciation

Depreciation expense is an accounting measure that estimates asset consumption of South Burnett Regional Council's property, infrastructure, plant and equipment based on the most recent asset valuations, useful lives and levels of service.

Depreciation expense varies by asset class based on asset value, componentisation, and useful lives. Other factors that impact on monthly depreciation expense include processing of work in progress and asset disposals. Capitalisation (processing of work in progress) effects depreciation expense as this is the allocation of capital expenditure to the relevant asset/s as at completion date, increasing the value for depreciation.

As of 31 March 2026, depreciation expense was just above target at 77% as depreciation journals for March have been posted.

Work in progress balance as at 31 March 2026 was $30.69m, made up of the asset classes listed below.

| Asset Class | Opening Balance | Capital Expenditure | Capitalisation | Closing Balance |
|---|---|---|---|---|
| Plant & Equipment | - | - | - | - |
| Land | 37,705 | - | - | 37,705 |
| Buildings | 2,339,806 | 198,989 | - | 2,538,795 |
| Parks | 3,269,220 | 53,617 | - | 3,322,837 |
| Roads | 20,660,997 | 1,507,466 | 8,325,380 | 13,843,083 |
| Water | 6,663,528 | 246,000.80 | - | 6,909,529 |
| Wastewater | 692,436 | 21,016 | - | 713,451 |
| Fleet | 2,503,983 | 759,690 | 1,190,689 | 2,072,984 |
| Waste | 1,142,291 | 78,122 | - | 1,220,413 |
| Office/ICT | 191,434 | 18,533 | 172,839 | 37,127 |
| | **37,501,401** | **2,883,433** | **9,688,908** | **30,695,926** |

### *1.3.5 Capital Expense*

Capital expense is the net proceeds or loss on assets that have been sold or disposed of during the year.

As Council cannot sell its roads or the majority of its major infrastructure, Council generally receives no revenue when an asset is disposed of. Any value remaining on the asset (therefore its written down value, which is the replacement cost less accumulated depreciation) is written off when the asset is renewed or upgraded.

A loss on asset disposal is recognised when a current asset is disposed of (sold, renewed or upgraded) out of Council's asset register while it still has a written down value on the asset register (that is, before it is fully depreciated) and therefore before its written down value is nil. To dispose of the asset, its written down value is recognised in Council's accounts as a loss on disposal.

If all assets were 100% depreciated and had zero remaining useful life when they were disposed of there would be no loss on disposal.

Capital expense is sitting at $1.71m as at 31 March 2026. This is made up of sales income for fleet items and Council land, less cost of fleet, roads and land assets sold.

| Capital Expense | Actual | Original Budget | Amended Budget |
|---|---|---|---|
| **INCOME** | | | |
| Fleet | - 285,330 | - 424,000 | - 424,000 |
| Land | - 69,000 | - | - |
| **DISPOSALS** | | | |
| Roads | 1,735,324 | - | - |
| Fleet | 215,734 | - | - |
| Land | 98,640 | - | - |
| Buildings | | - | - |
| Water | | - | - |
| Wastewater | | - | - |
| Miscellaneous | 21,798 | - | - |
| | **1,717,167** | **- 424,000** | **- 424,000** |

## 2.0 Interim Statement of Financial Position (Balance Sheet)

# Statement of Financial Position

**as at 31 March 2026**

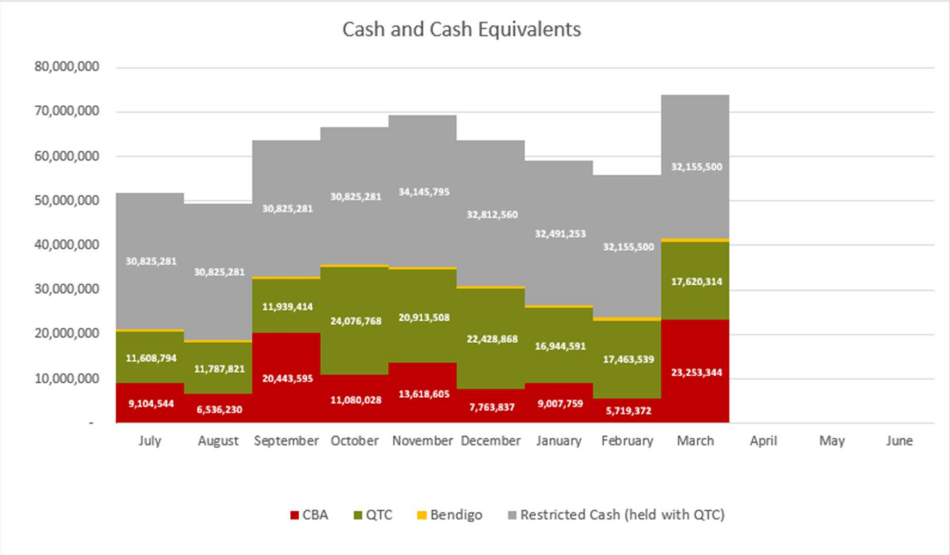
| | 2026 MARCH | Original Budget | Amended Budget |
|---|---|---|---|
| | $ | $ | $ |
| **Current Assets** | | | |
| Cash and Cash Equivalents | 73,983,112 | 57,437,178 | 50,648,671 |
| Trade and Other Receivables | 18,271,389 | 11,078,525 | 16,933,893 |
| Inventories | 973,439 | 994,965 | 999,801 |
| Investments | - | - | - |
| **Total Current Assets** | 93,227,940 | 69,510,668 | 68,582,365 |
| **Non-Current Assets** | | | |
| Trade and Other Receivables | 194,747 | - | - |
| Property, Plant and Equipment | 1,177,748,398 | 1,193,318,557 | 1,208,692,762 |
| Right of Use Asset | 704,581 | 675,781 | 675,781 |
| Intangible Assets | 6,234,639 | 6,226,681 | 6,226,681 |
| **Total Non-Current Assets** | 1,184,882,365 | 1,200,221,019 | 1,215,595,224 |
| **TOTAL ASSETS** | 1,278,110,305 | 1,269,731,687 | 1,284,177,589 |
| **Current Liabilities** | | | |
| Trade and Other Payables | 15,503,486 | 19,962,025 | 21,645,229 |
| Borrowings | 3,262,364 | 3,415,839 | 3,415,839 |
| Lease Liabilities | 22,077 | 22,704 | 22,704 |
| Provisions | 6,325,031 | 3,857,201 | 3,553,999 |
| Unearned Revenue | 1,558,994 | 2,968,685 | 2,998,957 |
| Other Liabilities | 546,074 | 1,540,243 | 1,540,243 |
| **Total Current Liabilities** | 27,218,026 | 31,766,697 | 33,176,971 |
| **Non-Current Liabilities** | | | |
| Trade and Other Payables | - | - | - |
| Borrowings | 13,661,701 | 13,699,535 | 13,699,535 |
| Lease Liabilities | 734,119 | 711,416 | 711,416 |
| Provisions | 13,731,078 | 13,382,312 | 13,754,034 |
| Other Liabilities | 1,540,243 | - | - |
| **Total Non-Current Liabilities** | 29,667,140 | 27,793,262 | 28,164,985 |
| **TOTAL LIABILITIES** | 56,885,166 | 59,559,959 | 61,341,956 |
| **NET COMMUNITY ASSETS** | 1,221,225,139 | 1,210,171,728 | 1,222,835,633 |
| **Community Equity** | | | |
| Retained Surplus/(Deficiency) | 475,094,316 | 474,807,627 | 476,704,810 |
| Asset Revaluation Surplus | 746,130,823 | 735,364,101 | 746,130,823 |
| **TOTAL COMMUNITY EQUITY** | 1,221,225,139 | 1,210,171,728 | 1,222,835,633 |

## 2.1 Current Assets

### *2.1.1 Cash and Cash Equivalents*

Cash and cash equivalents include cash on hand, all cash and cheques receipted but not banked at month end, deposits held at call with financial institutions and term deposits with maturities of three months or less.

As of 31 March 2026, Council's actual cash and cash equivalents balance was $73.98m, which is up from last month by $17.88m. The below table shows the breakup of this balance sheet element (excluding cash drawers).

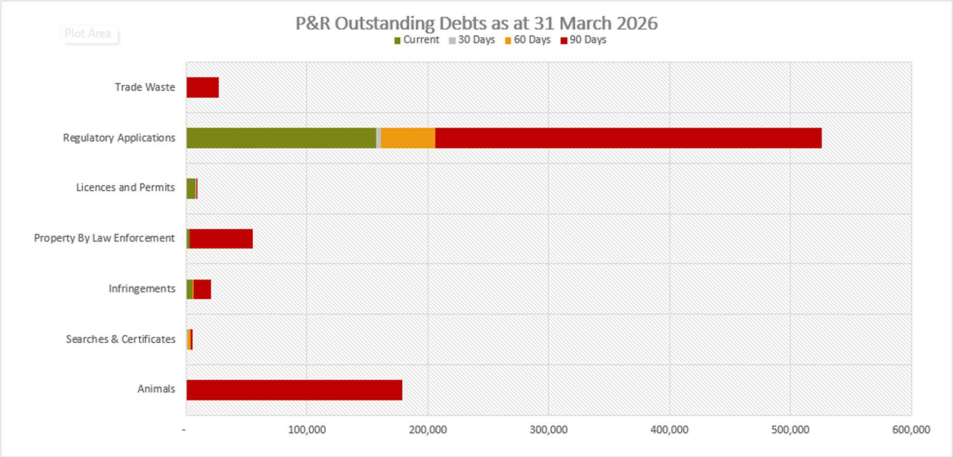



As at the 31 March 2026, the restricted cash balance was $32.15m.

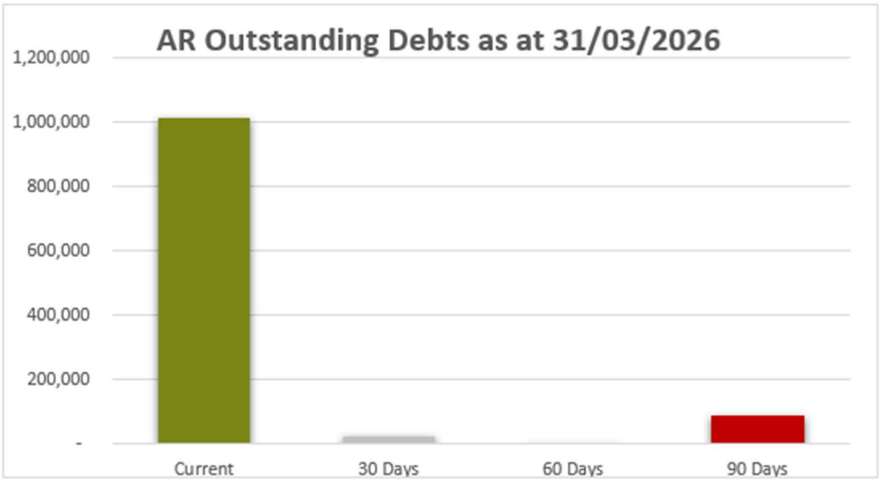
| RESTRICTED CASH | Feb-26 | Mar-26 | Difference |
|---|---|---|---|
| Recurrent Expenditure | 890,375 | 890,375 | - |
| Future Capital Works | - | - | - |
| Roads | 3,015,159 | 3,015,159 | - |
| Buildings | 3,885,660 | 3,885,660 | - |
| Waste | 4,091,155 | 4,091,155 | - |
| Land | 25,322 | 25,322 | - |
| Plant & ICT | 5,014,838 | 5,014,838 | - |
| Water | 5,081,139 | 5,081,139 | - |
| Wastewater | 7,919,586 | 7,919,586 | - |
| Unspent - Developer Contributions | 1,964,160 | 1,964,160 | - |
| Unspent - Loan Funds | 268,105 | 268,105 | - |
| **Total** | **32,155,500** | **32,155,500** | - |

### *2.1.2 Trade and Other Receivables*

Current trade and other receivables are made up of notices and invoices that have been issued but cash has not yet been collected. The below tables show the breakdown of the components in this balance sheet element – excluding rates.



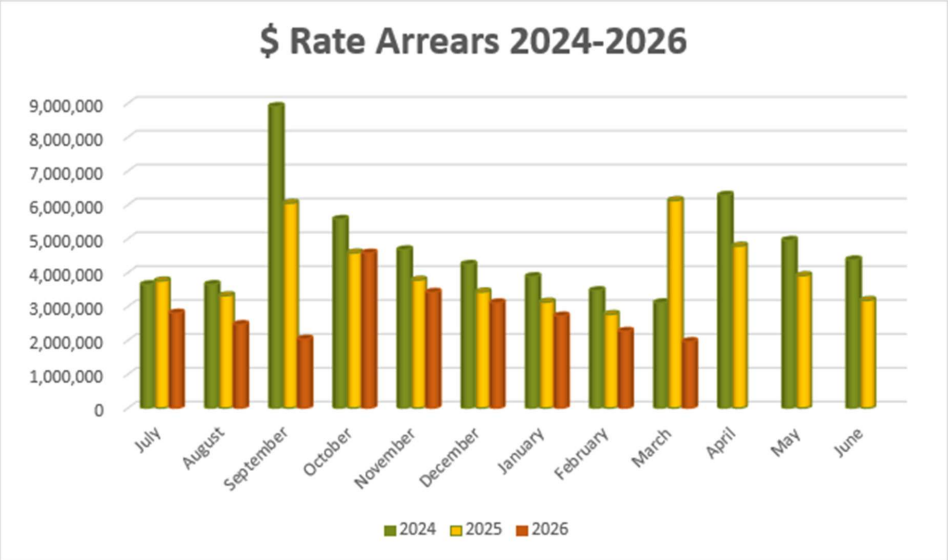

Property and Rating (P&R) debts shown above that are overdue by 90 days or more total $594k, which is up from last month by $15k. This amount is made up of $179k in animal registrations, $87k being actively pursued by Council staff or determination on next steps are being investigated, $52k can be recovered when properties are sold, and $276k belong to developer contributions that will be finalised in the future.

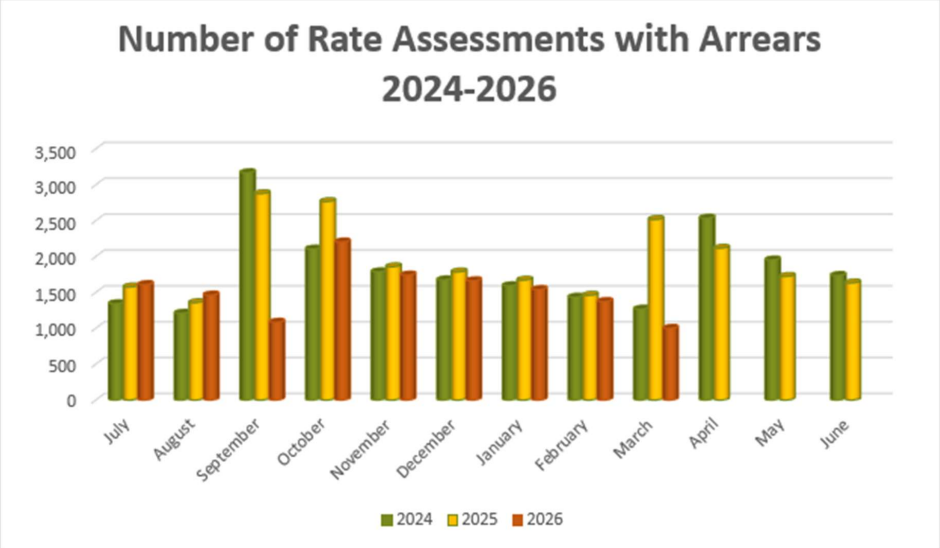


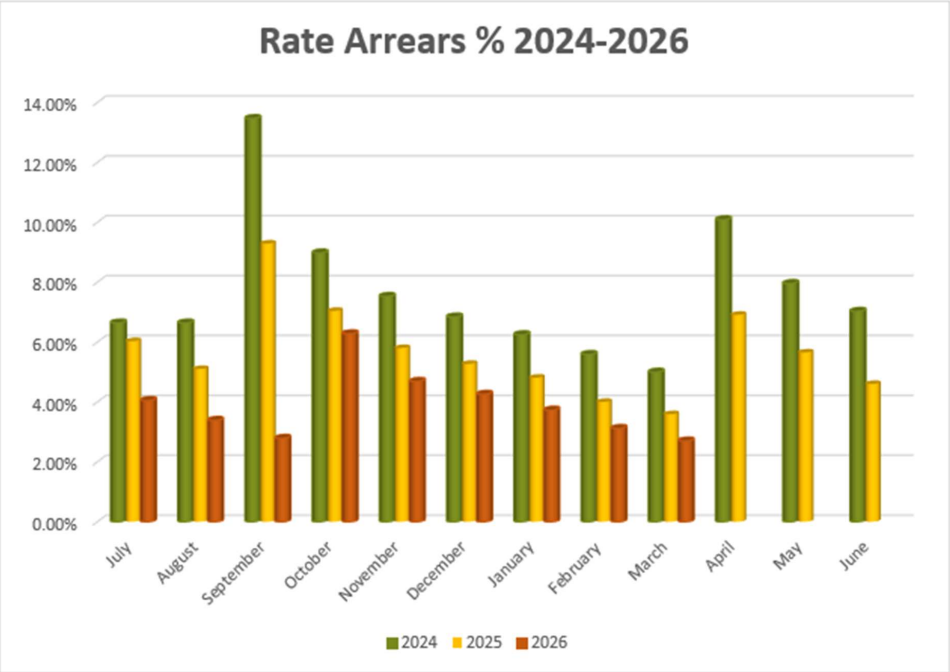

The AR outstanding debts 90+ days is currently $91k (down $2k from last month) being 8% of total AR outstanding debts.

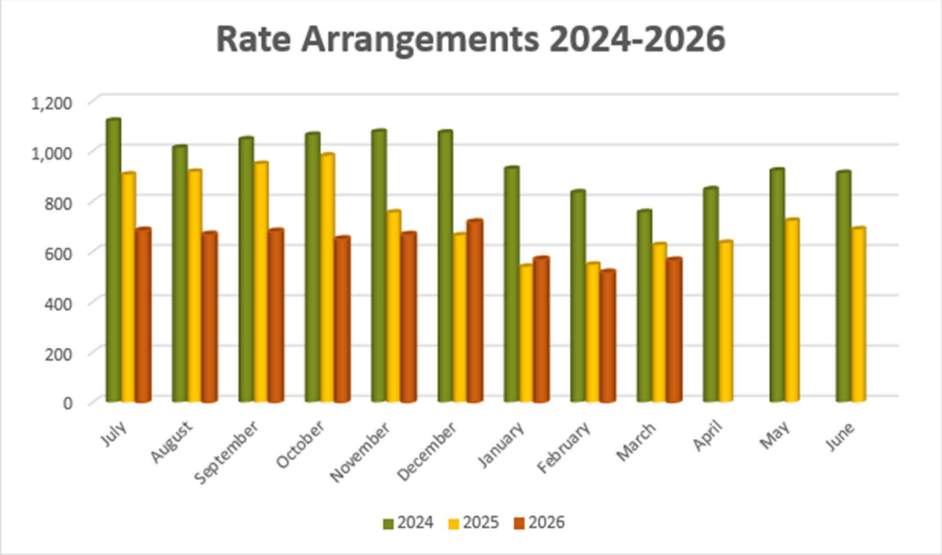
A total of 64.48% of the value sitting in 90 days remains with debt collectors or have a payment arrangement with Council and the remaining 35.52% is being actively pursued by Council staff.

Rates in arrears as of 31 March 2026 is sitting at $1.96m or 2.70% which is below the target arrears of 7%. There are currently 563 assessments with rate arrangements in place which accounts for 56.30% of the properties that are in arrears.




Rate Arrears % 2024-2026
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
July
August
September
October
November
December
January
February
March
April
May
June
2024
2025
2026


Rate Arrangements 2024-2026
1,200
1,000
800
600
400
200
0
July
August
September
October
November
December
January
February
March
April
May
June
2024
2025
2026

#### 2.1.3 Inventories

Inventories is made-up of Council stores and is valued at cost. Council is continuing to focus on utilising the amount of inventories held more efficiently.

### 2.2 Non-Current Assets

#### 2.2.1 Trade and Other Receivables

The non-current portion of Trade and Other Receivables is made up of the outstanding Memerambi Estate charges.

#### 2.2.2 Property, Plant and Equipment

The total capital amended budget (including continued projects from 2024/25) is $56.21m.

Actual spend as of 31 March 2026 is $21.04m, which is tracking below target at 37.4%. Committed costs of $5.75m are also identified which takes the actual and committed spend up to 47.7% of the amended budget.

Capital project budget report is attached separately to this document.

#### 2.2.3 Right of Use Assets

Council's right of use assets consists of long-term leases that are in place for various land parcels, with most of this value relating to the lease for land at BP Dam, which is currently due to end in 2051.

#### 2.2.4 Intangible Assets

Council's water allocation makes up the intangible asset balance. Water allocations are tested annually for impairment as part of the year end process.

### 2.3 Liabilities

#### 2.3.1 Trade and other Payables

Trade and Other Payables is made up of creditors, which is recognised upon receipt of invoice at the amount owed. Amounts are generally settled on 30-day terms. Liabilities are also recognised for employee benefits such as RDO and TOIL.

The below information shows the purchases by month split to show the dollar value and respective percentage of purchases that were sourced locally (within the South Burnett). This is a point in time snapshot and will change as more invoices are received.

**Accounts Payable - Local Purchases 2025/2026**

Report run: 09-Apr-2026

| Town of Business | Town of Business Description | January 2026 Purchases | February 2026 Purchases | March 2026 Purchases |
|---|---|---|---|---|
| LOCAL | | | | |
| | Total Local | 2,921,100.72 | 4,189,390.76 | 1,538,577.67 |
| OUTSIDE SBRC | | | | |
| | Cherbourg | 977.95 | 446.00 | 0.00 |
| | Dalby | 609,502.67 | 1,370,607.91 | -91,820.37 |
| | Neighbouring Council | 416,451.85 | 108,422.80 | 191,451.77 |
| | Other | 4,228,942.88 | 2,797,445.33 | 1,525,140.80 |
| | Yarraman | 31,928.60 | 31,928.60 | 31,928.60 |
| | Total Other | 5,287,803.95 | 4,308,850.64 | 1,656,700.80 |
| | % Local Purchases | 35.58% | 49.30% | 48.15% |

### 2.3.2 Borrowings

All Council borrowings are with the Queensland Treasury Corporation (QTC). The balance as of 31 March 2026 was $16,924,065 made up of borrowings in the following departments.

| Department | Borrowings | |
|---|---|---|
| NRM & Parks | $ | 107,983 |
| Finance | $ | - |
| Property | $ | 59,038 |
| Economic Development | $ | 68,523 |
| Environment & Waste | $ | 302,839 |
| Infrastructure | $ | 6,151,846 |
| Water & Wastewater | $ | 10,233,836 |
| **Total** | **$** | **16,924,065** |

### 2.3.3 Lease Liabilities

Lease Liabilities relate to AASB 16 requirements for lessees to calculate the lease liability of any long-term operating lease agreements on the balance sheet using an incremental borrowing rate for the period of the lease. Council has three lease agreements with the Department of Natural Resources, Mines and Energy that have been taken up as part of this standard.

### 2.3.4 Provisions

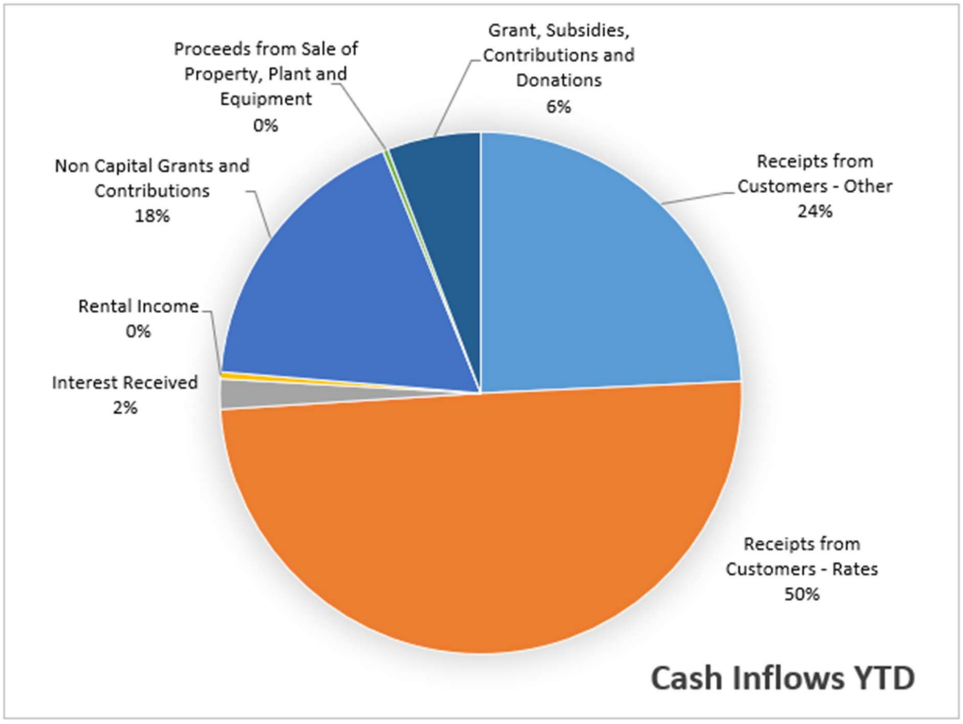
Provisions are made up of landfill and gravel pit expected restoration costs and employee annual leave and long service leave. Provisions will be impacted by discount rates and end of year calculations.

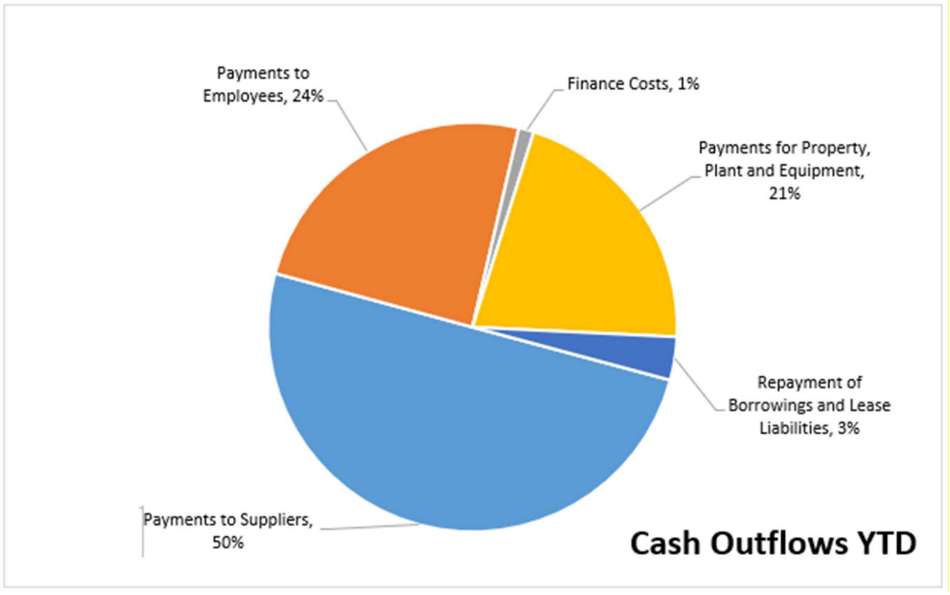
### 2.3.5 Other Liabilities

Other liabilities are made up of the State Waste Levy payment received in advance and prepaid rates. Council received upfront payments to cover the next four financial years' worth of State Waste Levy. The 2029/2030 State Waste Levy allocation will be paid to Council in 2025/2026.

## 3.0 Interim Cash Flow

| Monthly Cashflow | Jan | Feb | Mar | YTD | Original Budget | Amended Budget | YTD vs Amended Budget % |
|---|---|---|---|---|---|---|---|
| **Cash Flows from Operating Activities** | | | | | | | |
| Receipts from Customers | $944,938 | $4,466,860 | $23,498,150 | $81,264,506 | $88,342,384 | $90,156,039 | 90% |
| Payments to Suppliers and Employees | ($6,167,837) | ($8,584,771) | ($10,732,904) | ($75,419,699) | ($73,687,020) | ($84,102,729) | 90% |
| | ($5,222,899) | ($4,117,912) | $12,765,246 | $5,844,807 | $14,655,364 | $6,053,310 | |
| Interest Received | $249,033 | $206,044 | $209,157 | $2,046,480 | $3,058,000 | $3,058,000 | 67% |
| Rental Income | $45,582 | $36,122 | $69,837 | $463,961 | $610,999 | $610,999 | 76% |
| Non Capital Grants and Contributions | $1,543,159 | $3,520,781 | $5,563,950 | $19,299,674 | $8,021,411 | $17,205,864 | 112% |
| Finance Costs | ($128,606) | ($132,485) | ($127,646) | ($1,218,513) | ($959,979) | ($959,979) | 127% |
| **Net Cash Inflow (Outflow) from Operating Activities** | ($3,513,731) | ($487,449) | $18,480,544 | $26,436,410 | $25,385,795 | $25,968,194 | 102% |
| **Cash Flows from Investing Activities** | | | | | | | |
| Payments for Property, Plant and Equipment | ($1,458,359) | ($3,317,107) | ($2,888,947) | ($21,169,471) | ($42,824,429) | ($56,218,713) | 38% |
| Payments for Intangible Assets | - | - | - | - | - | - | 0% |
| Advances/(Repayments) of Loans and Advances | - | - | - | - | - | - | 0% |
| Proceeds from Sale of Property, Plant and Equipment | $98,000 | - | $31,364 | $354,330 | $424,000 | $424,000 | 84% |
| Grant, Subsidies, Contributions and Donations | $242,400 | $607,228 | $2,210,933 | $6,365,033 | $12,426,015 | $18,287,072 | 35% |
| **Net Cash Inflow (Outflow) from Investing Activities** | ($1,117,960) | ($2,709,879) | ($646,650) | ($14,450,108) | ($29,974,414) | ($37,507,641) | 39% |
| **Cash Flows from Financing Activities** | | | | | | | |
| Proceeds from Borrowings and Leasing Liabilities | - | - | - | - | - | - | 0% |
| Repayment of Borrowings and Leasing Liabilities | $65,171 | $58,864 | $65,171 | ($3,453,673) | ($3,262,364) | ($3,262,364) | 106% |
| **Net Cash Inflow (Outflow) from Financing Activities** | $65,171 | $58,864 | $65,171 | ($3,453,673) | ($3,262,364) | ($3,262,364) | 106% |
| **Cash and Cash Equivalents at the Beginning of the Period** | $63,789,030 | $59,222,511 | $56,084,047 | $65,450,482 | $65,288,161 | $65,450,482 | |
| Net Increase (Decrease) in Cash and Cash Equivalents | ($4,566,519) | ($3,138,464) | $17,899,065 | $8,532,630 | ($7,850,983) | ($14,801,811) | |
| **Cash and Cash Equivalents at the End of the Period** | **$59,222,511** | **$56,084,047** | **$73,983,112** | **$73,983,112** | **$57,437,178** | **$50,648,671** | |
| Restricted Cash | $32,491,253 | $32,155,500 | $32,155,500 | $32,155,500 | | | |
| Cash Available for Use | $26,731,258 | $23,928,547 | $41,827,612 | $41,827,612 | | | |
| | | | **Minimum 3 month operating liquidity** | **($16,939,853)** | | | |


Grant, Subsidies, Contributions and Donations 6%
Proceeds from Sale of Property, Plant and Equipment 0%
Non Capital Grants and Contributions 18%
Receipts from Customers - Other 24%
Rental Income 0%
Interest Received 2%
Receipts from Customers - Rates 50%
Cash Inflows YTD


Payments to Employees, 24%
Finance Costs, 1%
Payments for Property, Plant and Equipment, 21%
Repayment of Borrowings and Lease Liabilities, 3%
Payments to Suppliers, 50%
Cash Outflows YTD

## 4.0 Interim Changes in Equity

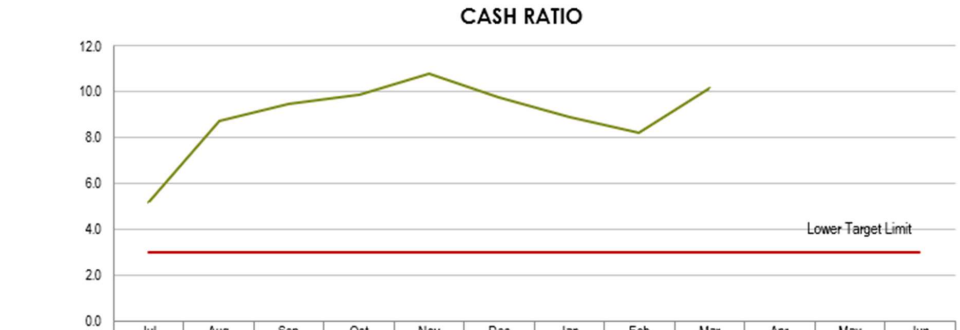
| | Jan-26 $ | Feb-26 $ | Mar-26 $ | YTD $ |
|---|---|---|---|---|
| **Asset Revaluation Surplus** | | | | |
| Opening Balance | 746,130,823 | 746,130,823 | 746,130,823 | 746,130,823 |
| Inc/(dec) in asset revaluation surplus | - | - | - | - |
| **Closing Balance** | **746,130,823** | **746,130,823** | **746,130,823** | **746,130,823** |
| | | | | |
| **Retained Surplus** | | | | |
| Opening Balance | 460,959,075 | 454,188,341 | 484,111,993 | 461,707,721 |
| Restricted Cash Released | | - | - | - |
| Net Result | - 6,770,733 | 29,923,652 | - 9,017,677 | 13,386,595 |
| **Closing Balance** | **454,188,341** | **484,111,993** | **475,094,316** | **475,094,316** |
| | | | | |
| **Total Community Equity** | **1,200,319,164** | **1,230,242,816** | **1,221,225,139** | **1,221,225,139** |

## 5.0 Financial Ratios

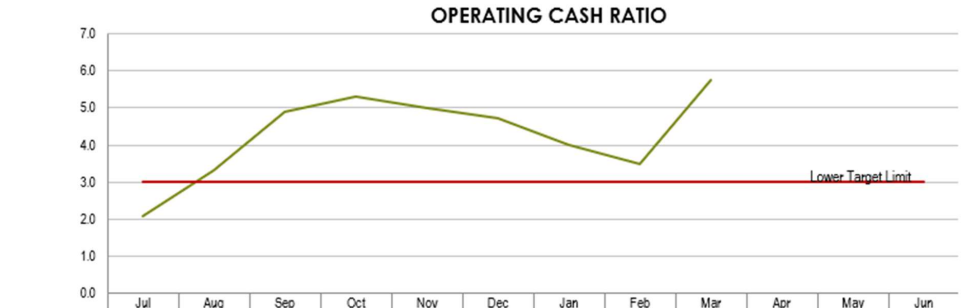
### Key Performance Indicators - Monthly Reporting

| Ratio | Description | Formula | SBRC's Target | Status | Mar-26 |
|---|---|---|---|---|---|
| Cash Ratio | Number of months operating expenditure covered by total cash held | $\frac{Cash\ Held}{(Total\ Operating\ Expense - Depreciation)/Number\ of\ Periods}$ | Target greater than or equal to 3 months | ✔ | 10.14 |
| Operating Cash Ratio | Number of months operating expenditure covered by working cash held | $\frac{Cash\ Held\ - Restricted\ Cash}{(Total\ Operating\ Expense - Depreciation)/Number\ of\ Periods}$ | Target greater than or equal to 3 months | ✔ | 5.73 |
| Current Ratio (Working Capital Ratio) | This measures the extent to which Council has liquid assets available to meet short term financial obligations | $\frac{Current\ Assets}{Current\ Liabilities}$ | Target between 2.0 & 4.0 | ✔ | 3.43 |
| Funded Long-Term Liabilities | Percentage of Restricted Cash and Long Term Liabilities backed by Cash | $\frac{Cash\ Held}{Restricted\ Cash + Non - Current\ Borrowings}$ | Target greater than or equal to 59% | ✔ | 161.47% |
| Debt Servicing Ratio | This indicates Council's ability to meet current debt instalments with recurrent revenue | $\frac{Interest\ Expense + Loan\ Redemption}{Total\ Operating\ Revenue}$ | Target less than or equal to 10% | ✔ | 2.57% |
| Cash Balance -$M | Total Cash that Council held | $Cash\ Held\ at\ Period\ End$ | Target greater than or equal to $24M | ✔ | 73.98 |
| Debt to Asset Ratio | To what exent our debt will be covered by total assets | $\frac{Current\ and\ Non - Current\ Loans}{Total\ Assets}$ | Target less than or equal to 10% | ✔ | 1.32% |
| Interest Coverage Ratio | This ratio demonstrates the extent which operating revenues are being used to meet the financing charges | $\frac{Net\ Interest\ Expense\ on\ Debt\ Service}{Total\ Operating\ Revenue}$ | Target between 0% and 5% | ✔ | 0.64% |

All ratios at the end of March are all within their respective targets.




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 5.1 | 8.7 | 9.5 | 9.9 | 10.8 | 9.7 | 8.9 | 8.2 | 10.1 | | | |
| Lower Target | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |



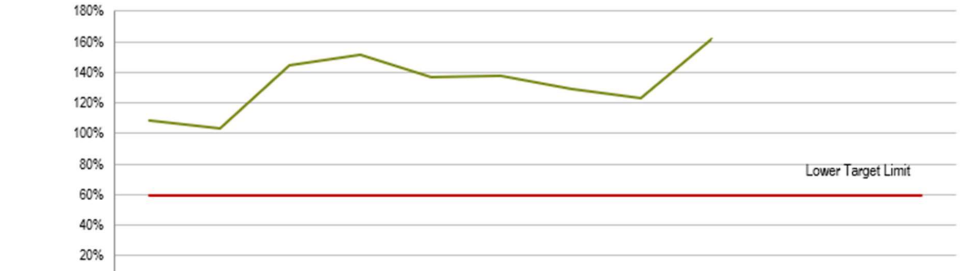

| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 2.1 | 3.3 | 4.9 | 5.3 | 5.0 | 4.7 | 4.0 | 3.5 | 5.7 | | | |
| Lower Target | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |

## CURRENT RATIO



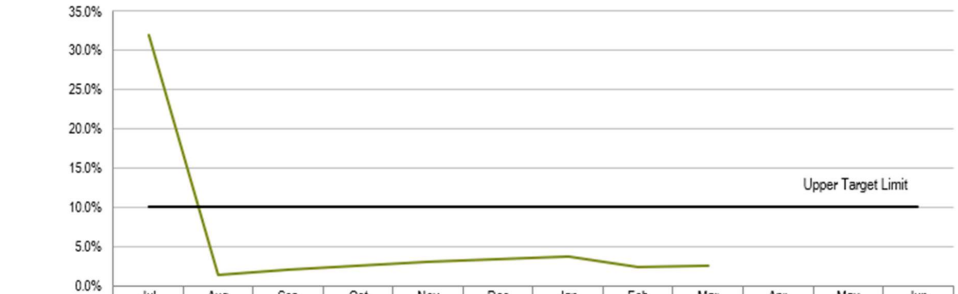

| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 2.4 | 4.2 | 2.8 | 3.4 | 3.0 | 2.9 | 2.5 | 3.6 | 3.4 | | | |
| Upper Target | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lower Target | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |

## FUNDED LONG-TERM LIABILITIES




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 108% | 103% | 145% | 151% | 137% | 138% | 129% | 123% | 161% | | | |
| Lower Target | 59% | 59% | 59% | 59% | 59% | 59% | 59% | 59% | 59% | 59% | 59% | 59% |

## DEBT SERVICING RATIO



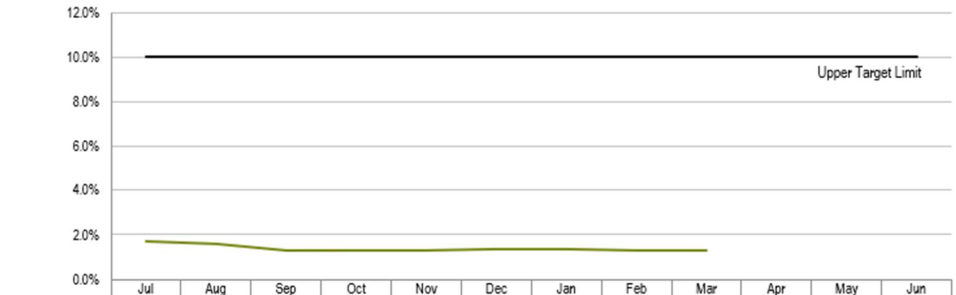

| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 32.0% | 1.4% | 2.1% | 2.6% | 3.0% | 3.4% | 3.7% | 2.4% | 2.6% | | | |
| Upper Target | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% |

## CASH BALANCE (M)



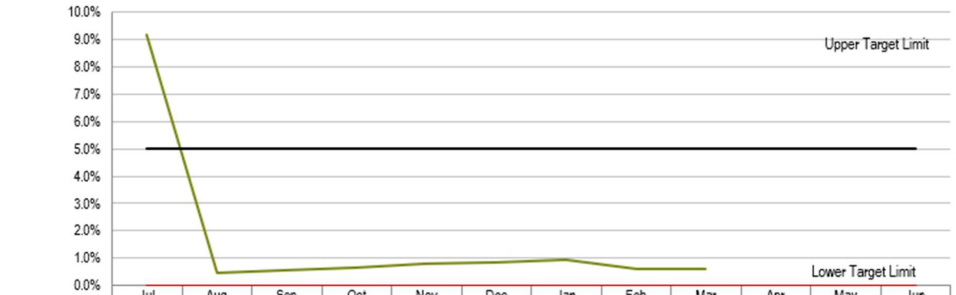

| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 52.1 | 49.6 | 63.8 | 66.7 | 69.4 | 63.8 | 59.2 | 56.1 | 74.0 | | | |
| Lower Target | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |

## DEBT TO ASSET RATIO




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 1.7% | 1.6% | 1.3% | 1.3% | 1.3% | 1.3% | 1.3% | 1.3% | 1.3% | | | |
| Upper Target | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% |

## INTEREST COVERAGE RATIO




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YTD Actual | 9.2% | 0.5% | 0.6% | 0.7% | 0.8% | 0.9% | 1.0% | 0.6% | 0.6% | | | |
| Upper Target | 5% | 5% | 5% | 5% | 5% | 5% | 5% | 5% | 5% | 5% | 5% | 5% |
| Lower Target | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

## 6.0 Long Term Financial Forecast

Section 171 of the *Local Government Regulation 2012* requires Council to develop a long-term financial forecast, covering a period of at least 10 years, which is 2025/2026 to 2034/2035. The key objective of the long-term financial plan is to understand the Council's financial sustainability for the longer term while focusing on seeking to deliver operational surpluses and to achieve the Council's strategic outcomes as specified in the Corporate Plan.

The long-term financial forecast requires:

(a) income of the Local Government;
(b) expenditure of the Local Government; and
(c) the value of assets, liabilities and equity of the Local Government.

The Local Government must:

(a) consider its long-term financial forecast before planning new borrowings; and
(b) review its long-term financial forecast annually.

The below long term financial forecast is based off the original budget for the 2025/2026 year.

## 6.1 Income and Expenditure Statements

| | Year 2 2026/2027 | Year 3 2027/2028 | Year 4 2028/2029 | Year 5 2029/2030 |
|---|---|---|---|---|
| **Income** | | | | |
| **Revenue** | | | | |
| **Recurrent Revenue** | | | | |
| Rates, Levies and Charges | $ 66,464,097 | $ 69,524,803 | $ 72,294,419 | $ 75,197,210 |
| Fees and Charges | $ 6,595,840 | $ 6,705,416 | $ 6,814,671 | $ 6,920,241 |
| Rental Income | $ 631,162 | $ 647,570 | $ 664,407 | $ 681,017 |
| Interest Received | $ 3,105,350 | $ 3,133,281 | $ 3,151,938 | $ 3,168,036 |
| Sales Revenue | $ 3,718,800 | $ 3,815,489 | $ 3,914,692 | $ 4,012,558 |
| Other Income | $ 1,249,240 | $ 1,277,811 | $ 1,307,105 | $ 1,335,909 |
| Grants, Subsidies, Contributions and Donations | $ 8,047,256 | $ 8,007,349 | $ 8,110,046 | $ 8,207,512 |
| | $ 89,811,745 | $ 93,111,719 | $ 96,257,278 | $ 99,522,483 |
| **Capital Revenue** | | | | |
| Grants, Subsidies, Contribution and Donations | $ 7,498,820 | $ 6,151,556 | $ 6,252,163 | $ 6,252,762 |
| **Total Income** | $ 97,310,565 | $ 99,263,275 | $ 102,509,441 | $ 105,775,245 |
| **Expenses** | | | | |
| **Recurrent Expenses** | | | | |
| Employee Benefits | $ 29,786,731 | $ 30,532,070 | $ 31,296,065 | $ 32,078,476 |
| Materials and Services | $ 32,700,518 | $ 33,845,785 | $ 34,686,156 | $ 35,771,293 |
| Finance Costs | $ 1,261,416 | $ 1,655,470 | $ 2,150,577 | $ 1,824,169 |
| Depreciation and Amortisation | $ 28,249,148 | $ 28,813,969 | $ 29,299,556 | $ 29,747,003 |
| | $ 91,997,814 | $ 94,847,293 | $ 97,432,354 | $ 99,420,941 |
| **Capital Expense** | -$ 420,000 | -$ 435,000 | -$ 420,000 | -$ 430,000 |
| **Total Expense** | $ 91,577,814 | $ 94,412,293 | $ 97,012,354 | $ 98,990,941 |
| **Net Result** | $ 5,732,751 | $ 4,850,982 | $ 5,497,087 | $ 6,784,304 |
| **Net Operating Result** | -$ 2,186,069 | -$ 1,735,574 | -$ 1,175,076 | $ 101,542 |

| | Year 6 2030/2031 | Year 7 2031/2032 | Year 8 2032/2033 | Year 9 2033/2034 | Year 10 2034/2035 |
|---|---|---|---|---|---|
| **Income** | | | | | |
| **Revenue** | | | | | |
| **Recurrent Revenue** | | | | | |
| Rates, Levies and Charges | $ 78,233,581 | $ 79,967,162 | $ 81,978,711 | $ 84,516,121 | $ 87,239,340 |
| Fees and Charges | $ 7,033,446 | $ 7,149,485 | $ 7,268,422 | $ 7,390,334 | $ 7,515,295 |
| Rental Income | $ 698,042 | $ 715,493 | $ 733,380 | $ 751,714 | $ 770,507 |
| Interest Received | $ 3,184,537 | $ 3,201,450 | $ 3,218,786 | $ 3,236,556 | $ 3,254,770 |
| Sales Revenue | $ 4,112,871 | $ 4,215,693 | $ 4,321,086 | $ 4,429,113 | $ 4,539,841 |
| Other Income | $ 1,365,432 | $ 1,395,694 | $ 1,426,711 | $ 1,458,502 | $ 1,491,093 |
| Grants, Subsidies, Contributions and Donations | $ 8,307,415 | $ 8,409,817 | $ 8,514,776 | $ 8,622,360 | $ 8,732,636 |
| | $ 102,935,324 | $ 105,054,794 | $ 107,461,872 | $ 110,404,700 | $ 113,543,482 |
| **Capital Revenue** | | | | | |
| Grants, Subsidies, Contribution and Donations | $ 5,964,434 | $ 6,254,006 | $ 6,254,651 | $ 6,255,312 | $ 6,255,990 |
| **Total Income** | $ 108,899,758 | $ 111,308,800 | $ 113,716,523 | $ 116,660,012 | $ 119,799,472 |
| **Expenses** | | | | | |
| **Recurrent Expenses** | | | | | |
| Employee Benefits | $ 32,880,447 | $ 33,702,452 | $ 34,545,017 | $ 35,408,643 | $ 36,293,858 |
| Materials and Services | $ 36,883,565 | $ 38,263,636 | $ 39,192,190 | $ 40,389,964 | $ 41,617,694 |
| Finance Costs | $ 1,713,792 | $ 1,528,674 | $ 1,485,904 | $ 1,463,825 | $ 1,410,832 |
| Depreciation and Amortisation | $ 30,000,440 | $ 30,262,851 | $ 30,454,082 | $ 30,662,089 | $ 30,883,515 |
| | $ 101,478,244 | $ 103,757,613 | $ 105,677,193 | $ 107,924,521 | $ 110,205,899 |
| **Capital Expense** | -$ 465,000 | -$ 440,000 | -$ 400,000 | -$ 412,000 | -$ 412,000 |
| **Total Expense** | $ 101,013,244 | $ 103,317,613 | $ 105,277,193 | $ 107,512,521 | $ 109,793,899 |
| **Net Result** | $ 7,886,514 | $ 7,991,187 | $ 8,439,330 | $ 9,147,491 | $ 10,005,573 |
| **Net Operating Result** | $ 1,457,080 | $ 1,297,181 | $ 1,784,679 | $ 2,480,179 | $ 3,337,583 |

## 6.2 Financial Position

| | Estimate Year 0 2024/2025 | Year 1 2025/2026 | Year 2 2026/2027 | Year 3 2027/2028 | Year 4 2028/2029 | Year 5 2029/20230 |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| **Current Assets** | | | | | | |
| Cash and Cash Equivalents | $ 65,288,161 | $ 57,437,178 | $ 60,908,710 | $ 58,337,523 | $ 57,369,907 | $ 62,921,024 |
| Receivables | $ 20,820,907 | $ 11,078,525 | $ 10,104,422 | $ 10,006,692 | $ 10,033,492 | $ 10,464,937 |
| Inventories | $ 1,004,965 | $ 994,965 | $ 984,965 | $ 974,965 | $ 964,965 | $ 954,965 |
| **Total Current Assets** | **$ 87,114,033** | **$ 69,510,668** | **$ 71,998,097** | **$ 69,319,181** | **$ 68,368,364** | **$ 74,340,926** |
| **Non-Current Assets** | | | | | | |
| Receivables - Non-Current | $ 194,747 | $ - | $ - | $ - | $ - | $ - |
| Infrastructure, Property, Plant and Equipment | $ 1,177,637,804 | $ 1,193,318,557 | $ 1,201,231,175 | $ 1,213,767,394 | $ 1,216,864,984 | $ 1,214,023,080 |
| Intangible Assets | $ 704,582 | $ 6,226,681 | $ 6,226,681 | $ 6,226,681 | $ 6,226,681 | $ 6,226,681 |
| Right Of Use Assets | $ 6,234,639 | $ 675,781 | $ 646,981 | $ 618,315 | $ 589,649 | $ 560,983 |
| **Total Non-Current Assets** | **$ 1,184,771,772** | **$ 1,200,221,019** | **$ 1,208,104,839** | **$ 1,220,612,391** | **$ 1,223,681,317** | **$ 1,220,810,746** |
| **Total Assets** | **$ 1,271,885,805** | **$ 1,269,731,687** | **$ 1,280,102,935** | **$ 1,289,931,572** | **$ 1,292,049,680** | **$ 1,295,151,672** |
| **Liabilities** | | | | | | |
| **Current Liabilities** | | | | | | |
| Payables | $ 26,882,188 | $ 19,984,729 | $ 19,481,787 | $ 19,529,088 | $ 19,578,475 | $ 19,630,276 |
| Borrowings | $ 3,262,365 | $ 3,415,839 | $ 3,322,833 | $ 3,785,750 | $ 3,854,913 | $ 4,040,858 |
| Provisions | $ 4,207,939 | $ 3,857,201 | $ 6,401,188 | $ 3,877,537 | $ 3,964,961 | $ 7,329,586 |
| Unearned Revenue | $ 2,958,685 | $ 2,968,685 | $ 2,978,685 | $ 2,988,685 | $ 2,998,685 | $ 3,008,685 |
| Other Liabilities | $ 1,479,842 | $ 1,540,243 | $ - | $ - | $ - | $ - |
| **Total Current Liabilities** | **$ 38,791,019** | **$ 31,766,697** | **$ 32,184,494** | **$ 30,181,059** | **$ 30,397,034** | **$ 34,009,406** |
| **Non-Current Liabilities** | | | | | | |
| Payables - Non-Current | $ 734,119 | $ 711,416 | $ 688,212 | $ 664,348 | $ 639,804 | $ 614,559 |
| Borrowings - Non-Current | $ 17,115,373 | $ 13,699,535 | $ 20,176,703 | $ 26,890,954 | $ 23,036,041 | $ 18,995,183 |
| Provisions - Non-Current | $ 12,874,079 | $ 13,382,312 | $ 11,149,046 | $ 11,439,749 | $ 11,724,253 | $ 8,495,671 |
| Other Liabilities - Non-Current | $ 1,540,243 | $ - | $ - | $ - | $ - | $ - |
| **Total Non-Current Liabilities** | **$ 32,263,813** | **$ 27,793,262** | **$ 32,013,961** | **$ 38,995,050** | **$ 35,400,098** | **$ 28,105,413** |
| **Total Liabilities** | **$ 71,054,832** | **$ 59,559,959** | **$ 64,198,455** | **$ 69,176,111** | **$ 65,797,131** | **$ 62,114,819** |
| **Net Assets** | **$ 1,200,830,972** | **$ 1,210,171,728** | **$ 1,215,904,480** | **$ 1,220,755,461** | **$ 1,226,252,549** | **$ 1,233,036,853** |
| **Equity** | | | | | | |
| Retained Earnings | $ 465,466,871 | $ 474,807,627 | $ 480,540,379 | $ 485,391,360 | $ 490,888,448 | $ 497,672,752 |
| Revaluation Reserve | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 |
| **Total Equity** | **$ 1,200,830,972** | **$ 1,210,171,728** | **$ 1,215,904,480** | **$ 1,220,755,461** | **$ 1,226,252,549** | **$ 1,233,036,853** |

| | Year 6 2030/2031 | Year 7 2031/2032 | Year 8 2032/2033 | Year 9 2033/2034 | Year 10 2034/2035 |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| **Current Assets** | | | | | |
| Cash and Cash Equivalents | $ 62,763,283 | $ 69,019,964 | $ 77,605,430 | $ 89,012,035 | $ 100,384,148 |
| Receivables | $ 11,032,709 | $ 11,206,406 | $ 11,984,308 | $ 12,386,548 | $ 12,923,999 |
| Inventories | $ 944,965 | $ 934,965 | $ 924,965 | $ 914,965 | $ 814,965 |
| **Total Current Assets** | **$ 74,740,957** | **$ 81,161,335** | **$ 90,514,703** | **$ 102,313,548** | **$ 114,123,112** |
| **Non-Current Assets** | | | | | |
| Receivables - Non-Current | $ - | $ - | $ - | $ - | $ - |
| Infrastructure, Property, Plant and Equipment | $ 1,214,366,331 | $ 1,215,301,637 | $ 1,213,443,895 | $ 1,210,136,001 | $ 1,207,411,858 |
| Intangible Assets | $ 6,226,681 | $ 6,226,681 | $ 6,226,681 | $ 6,226,681 | $ 6,226,681 |
| Right Of Use Assets | $ 532,317 | $ 503,651 | $ 474,985 | $ 447,140 | $ 420,445 |
| **Total Non-Current Assets** | **$ 1,221,125,329** | **$ 1,222,031,969** | **$ 1,220,145,561** | **$ 1,216,809,822** | **$ 1,214,058,984** |
| **Total Assets** | **$ 1,295,866,287** | **$ 1,303,193,304** | **$ 1,310,660,264** | **$ 1,319,123,370** | **$ 1,328,182,096** |
| **Liabilities** | | | | | |
| **Current Liabilities** | | | | | |
| Payables | $ 19,681,522 | $ 19,736,522 | $ 19,789,072 | $ 19,843,301 | $ 19,900,515 |
| Borrowings | $ 819,027 | $ 861,332 | $ 905,811 | $ 952,641 | $ 1,001,926 |
| Provisions | $ 3,929,623 | $ 4,192,165 | $ 3,873,482 | $ 4,081,110 | $ 3,775,561 |
| Other Liabilites | $ 3,018,685 | $ 3,028,685 | $ 3,038,685 | $ 3,048,685 | $ 3,058,685 |
| **Total Current Liabilities** | **$ 27,448,857** | **$ 27,818,704** | **$ 27,607,050** | **$ 27,925,737** | **$ 27,736,687** |
| **Non-Current Liabilities** | | | | | |
| Payables - Non-Current | $ 588,594 | $ 561,889 | $ 535,502 | $ 509,789 | $ 483,382 |
| Borrowings - Non-Current | $ 18,176,157 | $ 17,314,824 | $ 16,409,013 | $ 15,456,373 | $ 14,454,447 |
| Provisions - Non-Current | $ 8,729,311 | $ 8,583,333 | $ 8,754,814 | $ 8,730,096 | $ 9,000,633 |
| Other Liabilites - Non-Current | $ - | $ - | $ - | $ - | $ - |
| **Total Non-Current Liabilities** | **$ 27,494,062** | **$ 26,460,046** | **$ 25,699,329** | **$ 24,696,258** | **$ 23,938,462** |
| **Total Liabilities** | **$ 54,942,920** | **$ 54,278,750** | **$ 53,306,380** | **$ 52,621,994** | **$ 51,675,147** |
| **Net Assets** | **$ 1,240,923,367** | **$ 1,248,914,554** | **$ 1,257,353,884** | **$ 1,266,501,375** | **$ 1,276,506,948** |
| **Equity** | | | | | |
| Retained Earnings | $ 505,559,266 | $ 513,550,453 | $ 521,989,783 | $ 531,137,274 | $ 541,142,847 |
| Revaluation Reserve | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 |
| **Total Equity** | **$ 1,240,923,367** | **$ 1,248,914,554** | **$ 1,257,353,884** | **$ 1,266,501,375** | **$ 1,276,506,948** |

## 6.3 Cash Flow

| | Year 2 2026/2027 | Year 3 2027/2028 | Year 4 2028/2029 | Year 5 2029/2030 |
|---|---|---|---|---|
| **Cash Flows from Operating Activities** | | | | |
| ***Receipts:*** | | | | |
| Receipts from Customers | $ 82,785,230 | $ 85,302,280 | $ 88,203,297 | $ 91,211,420 |
| Interest Received | $ 3,105,350 | $ 3,133,281 | $ 3,151,938 | $ 3,168,036 |
| Rental Income | $ 631,162 | $ 647,570 | $ 664,407 | $ 681,017 |
| Non-Capital Grants and Contributions | $ 8,047,256 | $ 8,007,349 | $ 8,110,046 | $ 8,207,512 |
| ***Payments:*** | | | | |
| Payment to Suppliers | ($ 68,456,930) | ($ 70,899,608) | ($ 69,997,120) | ($ 72,225,184) |
| Borrowing Costs | ($ 810,550) | ($ 1,204,259) | ($ 1,618,119) | ($ 1,443,100) |
| **Net Cash Provided (or Used) in Operating Activities** | **$ 25,301,517** | **$ 24,986,612** | **$ 28,514,450** | **$ 29,599,701** |
| **Cash Flows from Investing Activities** | | | | |
| ***Receipts:*** | | | | |
| Proceeds from Sale of PPE | $ 420,000 | $ 435,000 | $ 420,000 | $ 430,000 |
| Grants, Subsidies, Contributions and Donations | $ 7,498,820 | $ 6,151,556 | $ 6,252,163 | $ 6,252,762 |
| ***Payments:*** | | | | |
| Payments for PPE | ($ 36,132,967) | ($ 41,321,522) | ($ 32,368,480) | ($ 26,876,433) |
| **Net Cash Provided (or Used) in Investing Activities** | **($ 28,214,147)** | **($ 34,734,966)** | **($ 25,696,317)** | **($ 20,193,671)** |
| **Cash Flows from Financing Activities** | | | | |
| ***Receipts:*** | | | | |
| Proceeds from Borrowings | $ 9,800,000 | $ 10,500,000 | $ - | $ - |
| ***Payments:*** | | | | |
| Repayments of Borrowings | ($ 3,415,838) | ($ 3,322,832) | ($ 3,785,749) | ($ 3,854,913) |
| **Net Cash Provided (or Used) in Financing Activities** | **$ 6,384,162** | **$ 7,177,168** | **($ 3,785,749)** | **($ 3,854,913)** |
| **Net Increase/(Decrease) in Cash and Cash Equivalents** | $ 3,471,532 | ($ 2,571,186) | ($ 967,617) | $ 5,551,118 |
| **Cash and Cash Equivalents at Beginning of Period** | $ 57,437,178 | $ 60,908,710 | $ 58,337,523 | $ 57,369,907 |
| **Cash and Cash Equivalents at End of Period** | $ 60,908,710 | $ 58,337,523 | $ 57,369,907 | $ 62,921,024 |

| | Year 6 2030/2031 | Year 7 2031/2032 | Year 8 2032/2033 | Year 9 2033/2034 | Year 10 2034/2035 |
|---|---|---|---|---|---|
| **Cash Flows from Operating Activities** | | | | | |
| ***Receipts:*** | | | | | |
| Receipts from Customers | $ 94,389,435 | $ 97,016,051 | $ 98,799,280 | $102,076,613 | $105,070,100 |
| Interest Received | $ 3,184,537 | $ 3,201,450 | $ 3,218,786 | $ 3,236,556 | $ 3,254,770 |
| Rental Income | $ 698,042 | $ 715,493 | $ 733,380 | $ 751,714 | $ 770,507 |
| Non capital grants and contributions | $ 8,307,415 | $ 8,409,817 | $ 8,514,776 | $ 8,622,360 | $ 8,732,636 |
| ***Payments:*** | | | | | |
| Payment to Suppliers | ($ 77,550,325) | ($ 76,599,531) | ($ 78,753,218) | ($ 80,603,557) | ($ 82,969,492) |
| Borrowing costs | ($ 1,260,397) | ($ 1,192,086) | ($ 1,153,183) | ($ 1,112,233) | ($ 1,069,080) |
| **Net Cash Provided (or Used) in Operating Activities** | **$ 27,768,707** | **$ 31,551,194** | **$ 31,359,821** | **$ 32,971,453** | **$ 33,789,441** |
| **Cash Flows from Investing Activities** | | | | | |
| ***Receipts:*** | | | | | |
| Proceeds from sale of PPE | $ 465,000 | $ 440,000 | $ 400,000 | $ 412,000 | $ 412,000 |
| Grants, subsidies ,contributions & donations | $ 5,964,434 | $ 6,254,006 | $ 6,254,651 | $ 6,255,312 | $ 6,255,990 |
| ***Payments:*** | | | | | |
| Payments for PPE | ($ 30,315,025) | ($ 31,169,491) | ($ 28,567,674) | ($ 27,326,350) | ($ 28,132,677) |
| **Net Cash Provided (or Used) in Investing Activities** | **($ 23,885,591)** | **($ 24,475,485)** | **($ 21,913,023)** | **($ 20,659,038)** | **($ 21,464,687)** |
| **Cash Flows from Financing Activities** | | | | | |
| ***Receipts:*** | | | | | |
| Proceeds from Borrowings | $ - | $ - | $ - | $ - | $ - |
| ***Payments:*** | | | | | |
| Repayments of borrowings | ($ 4,040,857) | ($ 819,027) | ($ 861,332) | ($ 905,810) | ($ 952,641) |
| **Net Cash Provided (or Used) in Financing Activities** | **($ 4,040,857)** | **($ 819,027)** | **($ 861,332)** | **($ 905,810)** | **($ 952,641)** |
| **Net Increase/(Decrease) in Cash and Cash Equivalents** | ($ 157,741) | $ 6,256,681 | $ 8,585,466 | $ 11,406,605 | $ 11,372,113 |
| **Cash and Cash Equivalents at Beginning of Period** | $ 62,921,024 | $ 62,763,283 | $ 69,019,964 | $ 77,605,430 | $ 89,012,035 |
| **Cash and Cash Equivalents at End of Period** | $ 62,763,283 | $ 69,019,964 | $ 77,605,430 | $ 89,012,035 | $100,384,148 |

## 6.4 Changes in Equity

| | Year 2 2026/2027 | Year 3 2027/2028 | Year 4 2028/2029 | Year 5 2029/2030 |
|---|---|---|---|---|
| **Asset Revaluation Surplus** | | | | |
| Opening Balance | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 |
| Increase/(Decrease) in Asset Revaluation Surplus | $ - | $ - | $ - | $ - |
| **Closing Balance** | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 |
| **Retained Surplus** | | | | |
| Opening Balance | $ 474,807,627 | $ 480,540,379 | $ 485,391,360 | $ 490,888,448 |
| Net Result | $ 5,732,751 | $ 4,850,982 | $ 5,497,087 | $ 6,784,304 |
| **Closing Balance** | $ 480,540,379 | $ 485,391,360 | $ 490,888,448 | $ 497,672,752 |
| **Total Community Equity** | **$ 1,215,904,480** | **$ 1,220,755,461** | **$ 1,226,252,549** | **$ 1,233,036,853** |

| | Year 6 2030/2031 | Year 7 2031/2032 | Year 8 2032/2033 | Year 9 2033/2034 | Year 10 2034/2035 |
|---|---|---|---|---|---|
| **Asset Revaluation Surplus** | | | | | |
| Opening Balance | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 |
| Increase/(Decrease) in Asset Revaluation Surplus | $ - | $ - | $ - | $ - | $ - |
| **Closing Balance** | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 | $ 735,364,101 |
| **Retained Surplus** | | | | | |
| Opening Balance | $ 497,672,752 | $ 505,559,266 | $ 513,550,453 | $ 521,989,783 | $ 531,137,274 |
| Net Result | $ 7,886,514 | $ 7,991,187 | $ 8,439,330 | $ 9,147,491 | $ 10,005,573 |
| **Closing Balance** | $ 505,559,266 | $ 513,550,453 | $ 521,989,783 | $ 531,137,274 | $ 541,142,847 |
| **Total Community Equity** | **$ 1,240,923,367** | **$ 1,248,914,554** | **$ 1,257,353,884** | **$ 1,266,501,375** | **$ 1,276,506,948** |

## 7.0 Investments

Council held $75.94m in bank accounts on 31 March 2026. Out of this balance, 65.5% was held with QTC with an end of month interest rate of 4.14%, 33.4% was with Commonwealth Bank with an interest rate of 4.35% for half the month then 4.60%, and the remaining 1.0% was sitting with Bendigo Bank with no interest rate identified at this stage.

| Institution | Rating | Rate at 30/06/2025 | Current Rate |
|---|---|---|---|
| QTC | A1+ | 4.53% | 4.14% |
| CBA General Account (New) | A1+ | 4.35% | 4.60% |
| CBA General Account | A1+ | 4.35% | 4.60% |

**Investment Portfolio Report**

as at 31/3/2026

| | Financial Institution | | | TOTAL |
|---|---|---|---|---|
| | Queensland Treasury | Bendigo Bank | Commonwealth Bank of Australia | |
| Opening Investment Balance 1 July 2025 | 55,226,728 | 325,928 | 9,715,518 | **65,268,175** |
| Interest Rate | 4.14% | 0.00% | 4.60% | |
| Deposits | 12,000,000 | 453,143 | 172,699,250 | **185,152,394** |
| Redemptions | - 19,000,000 | - 10,417 | - 157,341,649 | - **176,352,066** |
| Balance | 48,226,728 | 768,655 | 25,073,119 | **74,068,502** |
| Interest Income | 1,594,316 | - | 325,596 | **1,919,912** |
| Admin Charge | - 45,231 | - 31 | - 147 | - **45,408** |
| Net Interest Income | 1,549,086 | - 31 | 325,449 | **1,874,504** |
| Ending Investment Balance as at 31/3/2026 | 49,775,814 | 768,624 | 25,398,568 | **75,943,006** |
| % to Portfolio | 65.54% | 1.01% | 33.44% | |
| Short Term Rating | A1+ | A2 | A1+ | |
| Individual Counter - Party Limit | 100% | 10% | 30% | |
| Maximum Funds Limit | No Limit | $20M | $20M | |

## 8.0 Works for Queensland Round 5 (W4Q5)

The Works for Queensland Round 5 has a total budget of $8.44m with a grant period spanning from July 2024 to June 2027. Council has received a total of 50% of the grant funding ($4.22m during October 2024) with these funds being posted as a contract liability in the balance sheet until funds have been used. As at 31 March 2026, Council had spent approximately $2.79m.

## 9.0 Rates Update

During March 2026 the Rates Department have processed:

- 91 rates searches
- 558 rates requests
- 208 transfer of properties
- 32 amalgamations/splits
- 14 refunds processed
- 0 rate archive search

The discount period for the Rate Notices for the period January to June 2026 ended on 1 April 2026.

Reminder notices are getting prepared for issuance on 22 April 2026.

## 10.0 Grants Report

The full grants report is attached to this document. While the Finance team have endeavoured to ensure that the information is accurate and up to date, it is acknowledged that some of the data relating to grant completion due dates and other details may still need to be updated in the instances where extensions have been approved, or details have changed.

**Recent Grant Activity Summary (6 months)**

**as at 31/03/2026**

| Grant Project Name | Grant Program | Grant Amount | Month |
|---|---|---|---|
| **New Grant Applications Lodged** | | | **Submitted** |
| Carroll Nature Area Revegetation - Kingaroy & Dsitricts Branch of Native Plants Qld sponsorship | Grassroots Environmental Grant | $ 31,595.00 | Oct-25 |
| Allan Stirling Memorial Park Revegetation and Feral Pig Management - Bunya Mountain Community Association Inc collaboration | Grassroots Environmental Grant | $ 33,738.74 | Oct-25 |
| Murgon Men's Shed - repainting the Murgon Railway Building | Gambling Community Benefit Fund Round 125 | $ 18,500.00 | Oct-25 |
| Kingaroy State High School | STIP | $ 250,000.00 | Oct-25 |
| St Johns School | STIP | $ 181,000.00 | Oct-25 |
| Proston State School | STIP | $ 131,000.00 | Oct-25 |
| Boondooma Dam Recreation Area and Camp Kitchen | Regional Tourism Infrastructure Fund | $ 300,000.00 | Nov-25 |
| Murgon War Memorial Restoration | Honouring Our Veterans | $ 58,790.96 | Nov-25 |
| EOI - Permanent Stage Facilities in Memorial Park, Kingaroy | Multicultural Conect Grants Program | $ 500,000.00 | Nov-25 |
| New SES Vehicle for Wondai | SES Support Grant 2026-27 | $ 74,654.80 | Nov-25 |
| Fixed canopy for Blackbutt SES Vehicle | SES Support Grant 2026-28 | $ 8,284.82 | Nov-25 |
| Disaster Resilience Kits | Ergon Energy Community Fund | $ 9,227.00 | Nov-25 |
| South Burnett Multicultural Event | Celebrating Multicultural Queensland 25-26 Round 2 | $ 6,700.00 | Dec-25 |
| South Burnett Resource and Recovery Centre | Resource Recovery Boost Fund | $ 3,375,000.00 | Jan-26 |
| Constructing a Multicultural Multipurpose Entertainment Facility | Multicultural Connect Grants Program | $ 500,000.00 | Feb-26 |
| Field Days and Feral Pig Awareness Video | Queensland Biosecurity Boost Grant Program - Education | $ 14,710.00 | Feb-26 |
| Subsidy for Landholders to Fund Coordinated Aerial Shoots | Queensland Biosecurity Boost Grant Program - Innovation | $ 30,000.00 | Feb-26 |
| Repainting the Kingaroy Men's Shed | Gambling Community Benefit Fund - Round 126 | $ 20,185.00 | Feb-26 |
| 2026 NAIDOC Week Event | 2026 NAIDOC Week Local Grants | $ 9,500.00 | Feb-26 |
| Illegal Dumping officer | Fighting Illegal Dumping grant | $ 270,000.00 | Feb-26 |
| YouthCouncil Youth Week events | Youth Week Grants | $ 8,505.00 | Feb-26 |
| Suicide Prevention Working Group - RU OK Benches | Gambling Community Benefit Fund - Round 126 | $ 33,200.00 | Feb-26 |
| Wondai Men's Shed - new fence | Gambling Community Benefit Fund - Round 127 | $ 27,482.50 | Feb-26 |
| Kingaroy rail trail | Active Transport Grants | $ 300,000.00 | Feb-26 |
| Shade sails across South Burnett and new playground for Pioneer Park | Games On! Grassroots Infrastructure Fund | $ 510,000.00 | Mar-26 |
| People centred disaster management plan | FRRR Prepare and Recover | $ 22,974.60 | Mar-26 |
| | | | |
| | | | |
| **Successful Grant Applications** | | | **Successful** |
| Subsidy program for Blackbutt Residents | Flying Fox Roost Management Grant | $ 32,200.00 | Oct-25 |
| Making Problem Battery Collection Simple | Local Government Battery Collection Program | $ 91,769.00 | Oct-25 |
| Solar Infrastructure at six Council sites | Community Energy Upgrades Fund Round 2 | $ 243,726.00 | Nov-25 |
| EOI - Permanent Stage Facilities in Memorial Park, Kingaroy | Multicultural Conect Grants Program | | Dec-25 |
| WAGS | Grassroots Environmental Grant | | Feb-25 |
| SBYC Youth Week Events | QYW 2026 Grants | $ 8,505.00 | Mar-26 |
| Restoring the Murgon War Memorial | Honouring Our Veterans | $ 53,858.23 | Mar-26 |
| **Unsuccessful Grant Applications** | | | **Unsuccessful** |
| Boondooma Homestead Timber Windows and Doors Restoration | Community Sustainability Action Grant Round 9 | $ 50,000.00 | Dec-25 |
| Wooroolin Skate Park - Auspiced by Wooroolin Community Committee | Gambling Community Benefit Fund Round 124 | $ 100,000.00 | Dec-25 |
| Exercise Equipment for Ros Gregor walking track - auspiced by NaTDA | Gambling Community Benefit Fund Round 124 | $ 100,000.00 | Dec-25 |
| Disaster Resilience Kits | Ergon Energy Community Fund | $ 9,227.00 | Jan-26 |
| Allan Stirling Memorial Park Revegetation and Feral Pig Management - Bunya Mountain Community Association Inc collaboration | Grassroots Environmental Grant | $ 33,738.74 | Feb-26 |
| Revegetation in Carroll Nature Area, Kingaroy with Endemic Plant Species | Grassroots Environmental Grant | $ 31,720.00 | Feb-26 |
| Boondooma Dam Recreation Area and Camp Kitchen | Regional Tourism Infrastructure Fund | $ 300,000.00 | Feb-26 |



SOUTH BURNETT
REGIONAL COUNCIL

## 2025/2026 Capex Report for Council

| | | | FUNDING SOURCES | | | | | | | QUARTERLY REVIEWS | | | | | EXPENDITURE ACTUALS | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
| **Facilities** | | | | | | | | | | | | | | | | | |
| **Facilities - General** | | | | | | | | | | | | | | | | | |
| 007503 | Property Advanced Designs 2025/2026 | COUNCIL | 100,000.00 | - | - | - | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | 6,045.45 | 20,885.00 | 26,930.45 |
| 007592 | GR-SCPP-CCTV, Lighting & Fencing Vari | SCPP | 200,000.00 | - | - | 200,000.00 | - | - | 400,000.00 | - | - | 400,000.00 | - | 400,000.00 | 47,006.58 | 59,437.59 | 106,444.17 |
| | **Sub Activity Subtotal** | | **300,000.00** | **-** | **-** | **200,000.00** | **-** | **-** | **500,000.00** | **100,000.00** | **-** | **400,000.00** | **-** | **500,000.00** | **53,052.03** | **80,322.59** | **133,374.62** |
| **Admin Office - Kinga** | | | | | | | | | | | | | | | | | |
| 007616 | CEUF - Kingaroy Council Office Solar Pan | CEUF | 21,818.00 | - | - | 21,818.00 | - | - | 43,636.00 | - | - | - | 43,636.00 | 43,636.00 | - | - | - |
| | **Sub Activity Subtotal** | | **21,818.00** | **-** | **-** | **21,818.00** | **-** | **-** | **43,636.00** | **-** | **-** | **-** | **43,636.00** | **43,636.00** | **-** | **-** | **-** |
| **Admin Office - Nanan** | | | | | | | | | | | | | | | | | |
| 007615 | CEUF - Nanango Council Office and Libra | CEUF | 7,091.00 | - | - | 7,091.00 | - | - | 14,182.00 | - | - | - | 14,182.00 | 14,182.00 | - | - | - |
| | **Sub Activity Subtotal** | | **7,091.00** | **-** | **-** | **7,091.00** | **-** | **-** | **14,182.00** | **-** | **-** | **-** | **14,182.00** | **14,182.00** | **-** | **-** | **-** |
| **Admin Office - Wonda** | | | | | | | | | | | | | | | | | |
| 007483 | Wondai AdminOffice Upstairs Upgrade | COUNCIL | 70,000.00 | - | - | - | - | - | 70,000.00 | 70,000.00 | - | - | - | 70,000.00 | - | 50,113.01 | 50,113.01 |
| | **Sub Activity Subtotal** | | **70,000.00** | **-** | **-** | **-** | **-** | **-** | **70,000.00** | **70,000.00** | **-** | **-** | **-** | **70,000.00** | **-** | **50,113.01** | **50,113.01** |
| **Admin Office - BButt** | | | | | | | | | | | | | | | | | |
| 007482 | Bbutt Cust Serv Center & Library Counter | COUNCIL | - | 85,000.00 | - | - | - | - | 85,000.00 | 85,000.00 | - | - | - | 85,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **-** | **85,000.00** | **-** | **-** | **-** | **-** | **85,000.00** | **85,000.00** | **-** | **-** | **-** | **85,000.00** | **-** | **-** | **-** |
| **Admin Office-Proston** | | | | | | | | | | | | | | | | | |
| 007409 | Proston Admin/Library- Ceiling &Drainage | COUNCIL | 70,000.00 | 94,476.79 | - | - | - | - | 164,476.79 | - | 64,476.79 | - | 100,000.00 | 164,476.79 | 78,002.87 | 57,306.74 | 135,309.61 |
| | **Sub Activity Subtotal** | | **70,000.00** | **94,476.79** | **-** | **-** | **-** | **-** | **164,476.79** | **-** | **64,476.79** | **-** | **100,000.00** | **164,476.79** | **78,002.87** | **57,306.74** | **135,309.61** |
| **Art Gallery - Wondai** | | | | | | | | | | | | | | | | | |
| 007485 | Wondai Art Gallery - External repaint | COUNCIL | 50,000.00 | - | - | - | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | - | 31,919.64 | 31,919.64 |
| | **Sub Activity Subtotal** | | **50,000.00** | **-** | **-** | **-** | **-** | **-** | **50,000.00** | **50,000.00** | **-** | **-** | **-** | **50,000.00** | **-** | **31,919.64** | **31,919.64** |
| **Depot - Kingaroy** | | | | | | | | | | | | | | | | | |
| 007614 | CEUF - Kingaroy Depot Solar Panels (Pro | CEUF | 21,818.00 | - | - | 21,818.00 | - | - | 43,636.00 | - | - | - | 43,636.00 | 43,636.00 | - | - | - |
| | **Sub Activity Subtotal** | | **21,818.00** | **-** | **-** | **21,818.00** | **-** | **-** | **43,636.00** | **-** | **-** | **-** | **43,636.00** | **43,636.00** | **-** | **-** | **-** |
| **Depot - Murgon** | | | | | | | | | | | | | | | | | |
| 007486 | Murgon Depot - replace perimeter fence | COUNCIL | - | - | - | - | - | - | - | 50,000.00 | - | - | - 50,000.00 | - | - | - | - |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **50,000.00** | **-** | **-** | **- 50,000.00** | **-** | **-** | **-** | **-** |
| **Depot - Wondai** | | | | | | | | | | | | | | | | | |
| 007487 | Wondai Depot - Insulation of lunch room | COUNCIL | 50,000.00 | - | - | - | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | 76,589.45 | - | 76,589.45 |
| | **Sub Activity Subtotal** | | **50,000.00** | **-** | **-** | **-** | **-** | **-** | **50,000.00** | **50,000.00** | **-** | **-** | **-** | **50,000.00** | **76,589.45** | **-** | **76,589.45** |
| **Hall - Kingaroy Town** | | | | | | | | | | | | | | | | | |
| 007489 | KroyTownHallCarpark reseal&paver replac | COUNCIL | 54,000.00 | - | - | - | - | - | 54,000.00 | 54,000.00 | - | - | - | 54,000.00 | 4,400.00 | 24,768.30 | 29,168.30 |
| | **Sub Activity Subtotal** | | **54,000.00** | **-** | **-** | **-** | **-** | **-** | **54,000.00** | **54,000.00** | **-** | **-** | **-** | **54,000.00** | **4,400.00** | **24,768.30** | **29,168.30** |
| **Hall - Murgon Town** | | | | | | | | | | | | | | | | | |
| 007488 | Murgon Hall-Repair&reseal rear access Dr | COUNCIL | 40,000.00 | - | - | - | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | 13,584.64 | 4,625.07 | 18,209.71 |
| | **Sub Activity Subtotal** | | **40,000.00** | **-** | **-** | **-** | **-** | **-** | **40,000.00** | **40,000.00** | **-** | **-** | **-** | **40,000.00** | **13,584.64** | **4,625.07** | **18,209.71** |
| **Hall - Wondai Memori** | | | | | | | | | | | | | | | | | |
| 007490 | Wondai Town Hall - Re roof | COUNCIL | 200,000.00 | - | - | - | - | - | 200,000.00 | 200,000.00 | - | - | - | 200,000.00 | - | 7,221.92 | 7,221.92 |
| | **Sub Activity Subtotal** | | **200,000.00** | **-** | **-** | **-** | **-** | **-** | **200,000.00** | **200,000.00** | **-** | **-** | **-** | **200,000.00** | **-** | **7,221.92** | **7,221.92** |
| **Hall - Durong** | | | | | | | | | | | | | | | | | |
| 007491 | Durong Hall - Ramp replacement | COUNCIL | 10,000.00 | - | - | - | - | - | 10,000.00 | 10,000.00 | - | - | - | 10,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **10,000.00** | **-** | **-** | **-** | **-** | **-** | **10,000.00** | **10,000.00** | **-** | **-** | **-** | **10,000.00** | **-** | **-** | **-** |
| **Museum - Boondooma H** | | | | | | | | | | | | | | | | | |
| 006892 | Boondooma Homestead - Restoration | CSA | 20,603.51 | - | - | - | - | - | 20,603.51 | 50,000.00 | - | - | - 29,396.49 | 20,603.51 | - | - | - |
| 007420 | Boondoma Caretakers Cottage Reroof | COUNCIL | 4,396.49 | 45,400.00 | - | - | - | - | 49,796.49 | - | 45,400.00 | - | 4,396.49 | 49,796.49 | - | 49,796.49 | 49,796.49 |
| | **Sub Activity Subtotal** | | **25,000.00** | **45,400.00** | **-** | **-** | **-** | **-** | **70,400.00** | **50,000.00** | **45,400.00** | **-** | **- 25,000.00** | **70,400.00** | **-** | **49,796.49** | **49,796.49** |
| **Museum - Nanango Rin** | | | | | | | | | | | | | | | | | |
| 007271 | W4Q5-D&C-NngoRingsfieldHouse-Shade | W4Q5 | - | - | - | 38,048.34 | - | - | 38,048.34 | - | 38,048.34 | - | - | 38,048.34 | 26,535.45 | - | 26,535.45 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **38,048.34** | **-** | **-** | **38,048.34** | **-** | **38,048.34** | **-** | **-** | **38,048.34** | **26,535.45** | **-** | **26,535.45** |
| **Swimming Pool - King** | | | | | | | | | | | | | | | | | |
| 007274 | Kingaroy_Expansion joint_repainting | COUNCIL | - | 12,896.87 | - | - | - | - | 12,896.87 | - | 12,896.87 | - | - | 12,896.87 | - | 12,896.87 | 12,896.87 |
| 007276 | Kingaroy pool replace filter media | COUNCIL | - | 33,880.00 | - | - | - | - | 33,880.00 | - | 33,880.00 | - | - | 33,880.00 | - | 33,880.00 | 33,880.00 |
| 007498 | Kingaroy Pool - Refurb toddler pool | COUNCIL | 45,000.00 | - | - | - | - | - | 45,000.00 | 45,000.00 | - | - | - | 45,000.00 | 29,867.00 | 14,112.29 | 43,979.29 |
| | **Sub Activity Subtotal** | | **45,000.00** | **46,776.87** | **-** | **-** | **-** | **-** | **91,776.87** | **45,000.00** | **46,776.87** | **-** | **-** | **91,776.87** | **29,867.00** | **60,889.16** | **90,756.16** |
| **Swimming Pool - Murg** | | | | | | | | | | | | | | | | | |
| 007499 | Murgon Pool - Vacuum | COUNCIL | 22,500.00 | - | - | - | - | - | 22,500.00 | 22,500.00 | - | - | - | 22,500.00 | - | 3,636.45 | 3,636.45 |

| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 007500 | Murgon Pool - Refurb toddler pool | COUNCIL | 25,000.00 | - | - | - | - | - | 25,000.00 | 45,000.00 | - | - | 20,000.00 | 25,000.00 | 2,450.00 | 27,808.09 | 30,258.09 |
| | **Sub Activity Subtotal** | | **47,500.00** | **-** | **-** | **-** | **-** | **-** | **47,500.00** | **67,500.00** | **-** | **-** | **20,000.00** | **47,500.00** | **2,450.00** | **31,444.54** | **33,894.54** |
| **Swimming Pool - Nana** | | | | | | | | | | | | | | | | | |
| 007417 | SB Aquatic Centre - Pool Pod | HBN | - | - | - | 52,339.59 | - | - | 52,339.59 | - | 52,339.59 | - | - | 52,339.59 | - | 53,087.49 | 53,087.49 |
| 007497 | South Burnett Aquatic Centre - Replace | COUNCIL | 110,000.00 | - | - | - | - | - | 110,000.00 | 140,000.00 | - | - | 30,000.00 | 110,000.00 | 62,696.75 | - | 62,696.75 |
| 007597 | Replace Pool Pump - Nanango Aquatic Ce | COUNCIL | 12,020.00 | - | - | - | - | - | 12,020.00 | - | - | 12,020.00 | - | 12,020.00 | - | 12,020.00 | 12,020.00 |
| | **Sub Activity Subtotal** | | **122,020.00** | **-** | **-** | **52,339.59** | **-** | **-** | **174,359.59** | **140,000.00** | **52,339.59** | **12,020.00** | **30,000.00** | **174,359.59** | **62,696.75** | **65,107.49** | **127,804.24** |
| **Tourism - King VIC** | | | | | | | | | | | | | | | | | |
| 007484 | Kingaroy art gallery repaint internally | COUNCIL | 45,000.00 | - | - | - | - | - | 45,000.00 | 15,000.00 | - | - | 30,000.00 | 45,000.00 | - | 21,748.77 | 21,748.77 |
| | **Sub Activity Subtotal** | | **45,000.00** | **-** | **-** | **-** | **-** | **-** | **45,000.00** | **15,000.00** | **-** | **-** | **30,000.00** | **45,000.00** | **-** | **21,748.77** | **21,748.77** |
| **Public Conveniences** | | | | | | | | | | | | | | | | | |
| 007258 | Kroy Glendon St Toliets_Qld Health | COUNCIL | - | 81,583.55 | - | - | - | - | 81,583.55 | - | 81,583.55 | - | - | 81,583.55 | 17,246.78 | 24,920.17 | 42,166.95 |
| | **Sub Activity Subtotal** | | **-** | **81,583.55** | **-** | **-** | **-** | **-** | **81,583.55** | **-** | **81,583.55** | **-** | **-** | **81,583.55** | **17,246.78** | **24,920.17** | **42,166.95** |
| **Sp/ground-Hivesville** | | | | | | | | | | | | | | | | | |
| 007501 | Hivesville Sportsground - Dump Point | COUNCIL | 40,000.00 | - | - | - | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | 545.45 | 644.85 | 1,190.30 |
| 007530 | W4Q5-D&C-HvilleSportsGrd-Upgrade/Shc | W4Q5 | - | - | - | 50,000.00 | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **40,000.00** | **-** | **-** | **50,000.00** | **-** | **-** | **90,000.00** | **90,000.00** | **-** | **-** | **-** | **90,000.00** | **545.45** | **644.85** | **1,190.30** |
| **SBRC Animal Housing** | | | | | | | | | | | | | | | | | |
| 007492 | SBRC Animal Housing - Dangerous Dog E | COUNCIL | - | 14,500.00 | - | - | - | - | 14,500.00 | 14,500.00 | - | - | - | 14,500.00 | 12,345.29 | - | 12,345.29 |
| 007493 | SBRC Animal Housing - Repairs to Kennel | COUNCIL | - | 15,000.00 | - | - | - | - | 15,000.00 | 15,000.00 | - | - | - | 15,000.00 | - | - | - |
| 007494 | SBRC Animal Housing - Carpark/Driveway | COUNCIL | - | 50,000.00 | - | - | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | - | 15,004.55 | 15,004.55 |
| 007495 | SBRC Animal Housing - Switchboard Upg | COUNCIL | - | 5,000.00 | - | - | - | - | 5,000.00 | 5,000.00 | - | - | - | 5,000.00 | - | 5,131.03 | 5,131.03 |
| 007496 | SBRC Animal Housing - CCTV Cameras | COUNCIL | - | 15,000.00 | - | - | - | - | 15,000.00 | 15,000.00 | - | - | - | 15,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **-** | **99,500.00** | **-** | **-** | **-** | **-** | **99,500.00** | **99,500.00** | **-** | **-** | **-** | **99,500.00** | **12,345.29** | **20,135.58** | **32,480.87** |
| **W4Q Round 5** | | | | | | | | | | | | | | | | | |
| 007263 | W4Q5-D&C-Proston Hall | W4Q5 | - | - | - | 929.16 | - | - | 929.16 | - | 929.16 | - | - | 929.16 | - | - | - |
| 007264 | W4Q5-D&C-DurongHallSign&Shelter | W4Q5 | - | - | - | 4,336.87 | - | - | 4,336.87 | - | 4,336.87 | - | - | 4,336.87 | 1,500.00 | 356.00 | 1,856.00 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **5,266.03** | **-** | **-** | **5,266.03** | **-** | **5,266.03** | **-** | **-** | **5,266.03** | **1,500.00** | **356.00** | **1,856.00** |
| **Parks - Murgon** | | | | | | | | | | | | | | | | | |
| 007502 | Kapernick Pk-Viewing Platform&DemoToil | COUNCIL | 19,273.00 | - | - | - | - | - | 19,273.00 | 70,000.00 | - | - | 50,727.00 | 19,273.00 | - | - | - |
| | **Sub Activity Subtotal** | | **19,273.00** | **-** | **-** | **-** | **-** | **-** | **19,273.00** | **70,000.00** | **-** | **-** | **50,727.00** | **19,273.00** | **-** | **-** | **-** |
| **Public Conveniences** | | | | | | | | | | | | | | | | | |
| 007389 | W4Q5-D&C-KumbiaDumpPoint | W4Q5 | 20,000.00 | - | - | 20,000.00 | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | - | 1,284.47 | 1,284.47 |
| | **Sub Activity Subtotal** | | **20,000.00** | **-** | **-** | **20,000.00** | **-** | **-** | **40,000.00** | **40,000.00** | **-** | **-** | **-** | **40,000.00** | **-** | **1,284.47** | **1,284.47** |
| **Arts** | | | | | | | | | | | | | | | | | |
| 007379 | W4Q5-KRoy-PublicArt | W4Q5 | - | - | - | 39,785.37 | - | - | 39,785.37 | 40,000.00 | - | 214.63 | - | 39,785.37 | - | 89.40 | 89.40 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **39,785.37** | **-** | **-** | **39,785.37** | **40,000.00** | **-** | **214.63** | **-** | **39,785.37** | **-** | **89.40** | **89.40** |
| | **Activity Total** | | **1,258,520.00** | **452,737.21** | **-** | **456,166.33** | **-** | **-** | **2,167,423.54** | **1,366,000.00** | **333,891.17** | **411,805.37** | **55,727.00** | **2,167,423.54** | **378,815.71** | **532,694.19** | **911,509.90** |
| **Office** | | | | | | | | | | | | | | | | | |
| **Info Serv - ICT** | | | | | | | | | | | | | | | | | |
| 000379 | Computer Infrastructure & Upgrade | COUNCIL | 155,000.00 | - | - | - | - | - | 155,000.00 | 155,000.00 | - | - | - | 155,000.00 | - | 130,719.00 | 130,719.00 |
| 000381 | Server Hardware | COUNCIL | 50,000.00 | - | - | - | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | - | 9,851.77 | 9,851.77 |
| 000382 | Photocopiers & Printers | COUNCIL | 20,000.00 | - | - | - | - | - | 20,000.00 | 20,000.00 | - | - | - | 20,000.00 | - | 17,665.00 | 17,665.00 |
| | **Sub Activity Subtotal** | | **225,000.00** | **-** | **-** | **-** | **-** | **-** | **225,000.00** | **225,000.00** | **-** | **-** | **-** | **225,000.00** | **-** | **158,235.77** | **158,235.77** |
| | **Activity Total** | | **225,000.00** | **-** | **-** | **-** | **-** | **-** | **225,000.00** | **225,000.00** | **-** | **-** | **-** | **225,000.00** | **-** | **158,235.77** | **158,235.77** |
| **Fleet** | | | | | | | | | | | | | | | | | |
| **Plant & Fleet Manage** | | | | | | | | | | | | | | | | | |
| 006767 | Plant and Fleet Replacement 2022/2023 | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 210,171.18 | 210,171.18 |
| 006876 | Plant & Fleet Replacement 2023/2024 | COUNCIL | - | 572,818.17 | - | - | - | - | 572,818.17 | - | 572,818.17 | - | - | 572,818.17 | - | 1,041,774.72 | 1,041,774.72 |
| 007121 | Plant & Fleet Replacement 2024/2025 | COUNCIL | - | 4,154,076.97 | - | 42,644.86 | - | - | 4,196,721.83 | 3,545,679.00 | 651,042.83 | - | - | 4,196,721.83 | 980,702.54 | 3,137,349.87 | 4,118,052.41 |
| 007471 | Plant & Fleet Replacement 2025/2026 | COUNCIL | 1,979,000.00 | 740,000.00 | 424,000.00 | 139,146.00 | - | - | 3,282,146.00 | 3,282,146.00 | - | - | - | 3,282,146.00 | 1,201,885.57 | 1,452,336.63 | 2,654,222.20 |
| | **Sub Activity Subtotal** | | **1,979,000.00** | **5,466,895.14** | **424,000.00** | **181,790.86** | **-** | **-** | **8,051,686.00** | **6,827,825.00** | **1,223,861.00** | **-** | **-** | **8,051,686.00** | **2,182,588.11** | **5,841,632.40** | **8,024,220.51** |
| | **Activity Total** | | **1,979,000.00** | **5,466,895.14** | **424,000.00** | **181,790.86** | **-** | **-** | **8,051,686.00** | **6,827,825.00** | **1,223,861.00** | **-** | **-** | **8,051,686.00** | **2,182,588.11** | **5,841,632.40** | **8,024,220.51** |
| **Commercial Enterprises** | | | | | | | | | | | | | | | | | |
| **Comm.Ent- General** | | | | | | | | | | | | | | | | | |
| 007523 | CommEnterprises-Project/Plan/Design202 | COUNCIL | 40,000.00 | - | - | - | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **40,000.00** | **-** | **-** | **-** | **-** | **-** | **40,000.00** | **40,000.00** | **-** | **-** | **-** | **40,000.00** | **-** | **-** | **-** |
| **Aerodrome - Kingaroy** | | | | | | | | | | | | | | | | | |
| 007135 | Kroy Aerodrome - Septic System & Trench | COUNCIL | - | 22,204.90 | - | - | - | - | 22,204.90 | - | 22,204.90 | - | - | 22,204.90 | - | 22,872.40 | 22,872.40 |
| 007504 | Kroy A/port Asset Refurb (Met BD&toilet) | COUNCIL | 50,000.00 | - | - | - | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | - | 7,859.35 | 7,859.35 |
| 007505 | Kroy Aerodrome - Aerodrome Masterplan | COUNCIL | 120,000.00 | - | - | - | - | - | 120,000.00 | 120,000.00 | - | - | - | 120,000.00 | 100,867.73 | 6,625.00 | 107,492.73 |
| 007506 | Kingaroy Aerodrome - Flush markers | COUNCIL | 25,000.00 | - | - | - | - | - | 25,000.00 | 25,000.00 | - | - | - | 25,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **195,000.00** | **22,204.90** | **-** | **-** | **-** | **-** | **217,204.90** | **195,000.00** | **22,204.90** | **-** | **-** | **217,204.90** | **100,867.73** | **37,356.75** | **138,224.48** |
| **Aerodrome - Wondai** | | | | | | | | | | | | | | | | | |

| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 007507 | Wondai Airport - extension to taxiway | COUNCIL | 30,000.00 | - | - | - | - | - | 30,000.00 | 30,000.00 | - | - | - | 30,000.00 | 11,370.00 | - | 11,370.00 |
| | **Sub Activity Subtotal** | | **30,000.00** | **-** | **-** | **-** | **-** | **-** | **30,000.00** | **30,000.00** | **-** | **-** | **-** | **30,000.00** | **11,370.00** | **-** | **11,370.00** |
| **Cemeteries - Kingaro** | | | | | | | | | | | | | | | | | |
| 006774 | CP - Taabinga Cemetery expansion | COUNCIL | 25,000.00 | 17,072.72 | - | - | - | - | 42,072.72 | - | 17,072.72 | - | 25,000.00 | 42,072.72 | 17,072.72 | - | 17,072.72 |
| 007515 | SBRC Cemeteries - New marquees | COUNCIL | - | - | - | - | - | - | - | 6,000.00 | - | - | 6,000.00 | - | - | - | - |
| 007517 | TaabingaCem DesignNewExpanse-incl.gr | COUNCIL | - | - | - | - | - | - | - | 25,000.00 | - | - | 25,000.00 | - | - | - | - |
| 007518 | TaabingaCemetery Int. Rd network-current | COUNCIL | 150,000.00 | - | - | - | - | - | 150,000.00 | 150,000.00 | - | - | - | 150,000.00 | - | 23,448.57 | 23,448.57 |
| | **Sub Activity Subtotal** | | **175,000.00** | **17,072.72** | **-** | **-** | **-** | **-** | **192,072.72** | **181,000.00** | **17,072.72** | **-** | **6,000.00** | **192,072.72** | **17,072.72** | **23,448.57** | **40,521.29** |
| **Cemeteries - Nanango** | | | | | | | | | | | | | | | | | |
| 007516 | SBRC Cemeteries - Signage | COUNCIL | 25,000.00 | - | - | - | - | - | 25,000.00 | 25,000.00 | - | - | - | 25,000.00 | - | - | - |
| 007520 | Nanango Cemetery Internal Road | COUNCIL | 100,000.00 | - | - | - | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | - | - | - |
| 007521 | Ngo Cemetery Plinths-new lawn cem exter | COUNCIL | 20,000.00 | - | - | - | - | - | 20,000.00 | 20,000.00 | - | - | - | 20,000.00 | - | 15,800.00 | 15,800.00 |
| | **Sub Activity Subtotal** | | **145,000.00** | **-** | **-** | **-** | **-** | **-** | **145,000.00** | **145,000.00** | **-** | **-** | **-** | **145,000.00** | **-** | **15,800.00** | **15,800.00** |
| **Cemeteries - Wondai** | | | | | | | | | | | | | | | | | |
| 007519 | Murgon Cemetery Survey & design new ar | COUNCIL | 10,000.00 | - | - | - | - | - | 10,000.00 | 10,000.00 | - | - | - | 10,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **10,000.00** | **-** | **-** | **-** | **-** | **-** | **10,000.00** | **10,000.00** | **-** | **-** | **-** | **10,000.00** | **-** | **-** | **-** |
| **Cemeteries - Proston** | | | | | | | | | | | | | | | | | |
| 007522 | Proston Cemetery - Boundary fence | COUNCIL | 100,000.00 | - | - | - | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **100,000.00** | **-** | **-** | **-** | **-** | **-** | **100,000.00** | **100,000.00** | **-** | **-** | **-** | **100,000.00** | **-** | **-** | **-** |
| **Saleyards - Coolabun** | | | | | | | | | | | | | | | | | |
| 006777 | CP - Coolabunia Saleyards-Asset Upgrade | COUNCIL | - | 214,234.23 | - | - | - | - | 214,234.23 | - | 214,234.23 | - | - | 214,234.23 | - | 1,679.93 | 1,679.93 |
| 007137 | Coolabunia Saleyards Security Fencing | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,400.00 | 1,400.00 |
| 007508 | Coolabunia Saleyards - Replace yards | COUNCIL | 150,000.00 | - | - | - | - | - | 150,000.00 | 150,000.00 | - | - | - | 150,000.00 | - | 307,061.32 | 307,061.32 |
| 007509 | Coolabunia Saleyards - Refurb toilet | COUNCIL | 100,000.00 | - | - | - | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | 27,368.50 | 16,438.93 | 43,807.43 |
| 007510 | Coolabunia Saleyards-Refurbcanteen&offi | COUNCIL | 80,000.00 | - | - | - | - | - | 80,000.00 | 80,000.00 | - | - | - | 80,000.00 | 42,606.49 | 44,275.55 | 86,882.04 |
| | **Sub Activity Subtotal** | | **330,000.00** | **214,234.23** | **-** | **-** | **-** | **-** | **544,234.23** | **330,000.00** | **214,234.23** | **-** | **-** | **544,234.23** | **69,974.99** | **370,855.73** | **440,830.72** |
| **Tourism - Yallakool** | | | | | | | | | | | | | | | | | |
| 007141 | BP Dam-Replace sliding doors/Security | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 4,375.00 | 4,375.00 |
| 007142 | BP Dam - Dump point new enclosure fenc | COUNCIL | - | 2,046.11 | - | - | - | - | 2,046.11 | - | 2,046.11 | - | - | 2,046.11 | - | 2,715.39 | 2,715.39 |
| 007386 | W4Q5-D&C-Moffatdale-BPDam2xCabins | W4Q5 | 6,000.00 | - | - | 400,000.00 | - | - | 406,000.00 | 400,000.00 | - | - | 6,000.00 | 406,000.00 | 32,538.67 | 25,433.32 | 57,971.99 |
| 007511 | BPDam Refurb-paint toilets/BDs&kioskroo | COUNCIL | 50,000.00 | - | - | - | - | - | 50,000.00 | 50,000.00 | - | - | - | 50,000.00 | - | - | - |
| 007512 | BPDam - Security Systems | COUNCIL | 25,000.00 | - | - | - | - | - | 25,000.00 | 25,000.00 | - | - | - | 25,000.00 | - | 12,988.96 | 12,988.96 |
| 007604 | BP Dam - Security Window screens, door | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 36,128.70 | 36,128.70 |
| | **Sub Activity Subtotal** | | **81,000.00** | **2,046.11** | **-** | **400,000.00** | **-** | **-** | **483,046.11** | **475,000.00** | **2,046.11** | **-** | **6,000.00** | **483,046.11** | **32,538.67** | **81,641.37** | **114,180.04** |
| **Tourism - Lake Boon** | | | | | | | | | | | | | | | | | |
| 007140 | Bdma Dam-Replace sliding doors/Security | COUNCIL | - | 2,085.00 | - | - | - | - | 2,085.00 | - | 2,085.00 | - | - | 2,085.00 | - | 1,950.00 | 1,950.00 |
| 007143 | W4Q5-D&C-BdmaDamConcreteSlabs | W4Q5 | - | - | - | 44,120.30 | - | - | 44,120.30 | - | 44,120.30 | - | - | 44,120.30 | - | - | - |
| 007387 | W4Q5-D&C-Proston-BoondoomaDam-car | W4Q5 | - | - | - | 400,000.00 | - | - | 400,000.00 | 400,000.00 | - | - | - | 400,000.00 | 18,045.65 | 25,433.34 | 43,478.99 |
| 007513 | BDam-Bunkhouse area Rec space upgrad | COUNCIL | 255,000.00 | - | - | - | - | - | 255,000.00 | 255,000.00 | - | - | - | 255,000.00 | 18,045.68 | 25,433.32 | 43,479.00 |
| 007514 | BoondoomaDamCabins-repair/paint eaves | COUNCIL | 70,000.00 | - | - | - | - | - | 70,000.00 | 70,000.00 | - | - | - | 70,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **325,000.00** | **2,085.00** | **-** | **444,120.30** | **-** | **-** | **771,205.30** | **725,000.00** | **46,205.30** | **-** | **-** | **771,205.30** | **36,091.33** | **52,816.66** | **88,907.99** |
| | **Activity Total** | | **1,431,000.00** | **257,642.96** | **-** | **844,120.30** | **-** | **-** | **2,532,763.26** | **2,231,000.00** | **301,763.26** | **-** | **-** | **2,532,763.26** | **267,915.44** | **581,919.08** | **849,834.52** |
| **Parks** | | | | | | | | | | | | | | | | | |
| **Parks & Gardens** | | | | | | | | | | | | | | | | | |
| 007381 | W4Q5-D&C-Memerambi Playground | W4Q5 | - | - | - | 100,000.00 | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | - | 342.00 | 342.00 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **100,000.00** | **-** | **-** | **100,000.00** | **100,000.00** | **-** | **-** | **-** | **100,000.00** | **-** | **342.00** | **342.00** |
| **W4Q Round 5** | | | | | | | | | | | | | | | | | |
| 007265 | W4Q5-D&C-WooroolinDaltonPkReplacem | W4Q5 | - | - | - | 20,000.00 | - | - | 20,000.00 | 20,000.00 | - | - | - | 20,000.00 | 10,893.64 | - | 10,893.64 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **20,000.00** | **-** | **-** | **20,000.00** | **20,000.00** | **-** | **-** | **-** | **20,000.00** | **10,893.64** | **-** | **10,893.64** |
| **Parks - Kingaroy** | | | | | | | | | | | | | | | | | |
| 007236 | Refurbishment of Kingaroy Skate park | COUNCIL | - | 10,422.80 | - | - | - | - | 10,422.80 | - | - | - | 10,422.80 | 10,422.80 | - | 10,422.80 | 10,422.80 |
| 007240 | Softfall Replacement - Kingaroy | COUNCIL | - | 138,421.74 | - | - | - | - | 138,421.74 | 126,485.38 | 11,936.36 | - | - | 138,421.74 | 62,675.00 | 36,652.73 | 99,327.73 |
| 007255 | W4Q5-D&C-KRoyAdermannParkAmenitie | W4Q5 | - | - | - | 64,754.35 | - | - | 64,754.35 | - | 68,603.38 | - | 3,849.03 | 64,754.35 | - | 64,754.35 | 64,754.35 |
| 007308 | Kroy Memorial Park-Playground CCTV | COUNCIL | - | 23,405.30 | - | - | - | - | 23,405.30 | - | 23,405.30 | - | - | 23,405.30 | - | - | - |
| 007524 | RegionalParksRefurbish-asset replacemer | COUNCIL | 30,000.00 | - | - | - | - | - | 30,000.00 | 30,000.00 | - | - | - | 30,000.00 | 25,307.55 | 114.64 | 25,422.19 |
| 007526 | All towns replace playground gates | COUNCIL | 107,000.00 | - | - | - | - | - | 107,000.00 | 107,000.00 | - | - | - | 107,000.00 | 4,518.49 | 36,288.99 | 40,807.48 |
| 007598 | W4Q5-D&C-APEX Park Project | W4Q5 | - | - | - | 86,849.03 | - | - | 86,849.03 | - | 33,000.00 | 50,000.00 | 3,849.03 | 86,849.03 | 88,939.05 | 5,645.69 | 94,584.74 |
| | **Sub Activity Subtotal** | | **137,000.00** | **172,249.84** | **-** | **151,603.38** | **-** | **-** | **460,853.22** | **263,485.38** | **136,945.04** | **50,000.00** | **10,422.80** | **460,853.22** | **181,440.09** | **153,879.20** | **335,319.29** |
| **Parks - Nanango** | | | | | | | | | | | | | | | | | |
| 007083 | MIIFF-Amenities Block Nanango Butter Fa | MIIFF | - | 18,161.08 | - | - | - | - | 18,161.08 | - | 29,207.48 | - | 11,046.40 | 18,161.08 | - | 80.00 | 80.00 |
| 007244 | Softfall Replacement - Nanango | COUNCIL | - | 21,684.79 | - | - | - | - | 21,684.79 | 21,684.79 | - | - | - | 21,684.79 | - | 3,467.28 | 3,467.28 |
| 007246 | Nanango Walking Track | LRCI_4_A | - | - | - | - | - | - | - | - | 7,817.21 | - | 7,817.21 | - | - | - | - |
| 007249 | Pioneer Park Mill Flat-Drayton_Footpath | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 2,800.00 | 2,800.00 |
| 007250 | W4Q5-D&C-Nngo-PioneerPark-Lighting | W4Q5 | - | - | - | 5,199.23 | - | - | 5,199.23 | - | 5,199.23 | - | - | 5,199.23 | - | - | - |
| 007331 | W4Q_5 Nanango Parks_Footpath Upgrad | W4Q5 | - | 7,817.21 | - | 20,000.00 | - | - | 27,817.21 | - | 20,000.00 | - | 7,817.21 | 27,817.21 | - | 26,906.20 | 26,906.20 |
| | **Sub Activity Subtotal** | | **-** | **47,663.08** | **-** | **25,199.23** | **-** | **-** | **72,862.31** | **21,684.79** | **62,223.92** | **-** | **11,046.40** | **72,862.31** | **-** | **27,653.48** | **27,653.48** |
| **Parks - Blackbutt** | | | | | | | | | | | | | | | | | |
| 007079 | Blackbutt Parklands & Sensory Garden | CONTRIB | - | 2,862.62 | - | - | - | - | 2,862.62 | - | 2,862.62 | - | - | 2,862.62 | - | - | - |

| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 007239 | Blackbutt signage | COUNCIL | - | 15,000.00 | - | - | - | - | 15,000.00 | 15,000.00 | - | - | - | 15,000.00 | - | - | - |
| 007527 | Benarkin Park. Flying Fox swing | COUNCIL | 85,000.00 | - | - | - | - | - | 85,000.00 | 85,000.00 | - | - | - | 85,000.00 | 25.00 | 79,878.58 | 79,903.58 |
| | **Sub Activity Subtotal** | | **85,000.00** | **17,862.62** | **-** | **-** | **-** | **-** | **102,862.62** | **100,000.00** | **2,862.62** | **-** | **-** | **102,862.62** | **25.00** | **79,878.58** | **79,903.58** |
| **Parks - Murgon** | | | | | | | | | | | | | | | | | |
| 007241 | Softfall Replacement - Murgon | COUNCIL | 45,000.00 | - | - | - | - | - | 45,000.00 | 45,000.00 | - | - | - | 45,000.00 | - | 42,498.61 | 42,498.61 |
| 007254 | MIIFF-Amenities Block Murgon R&Y Park | MIIFF | - | 13,785.09 | - | - | - | - | 13,785.09 | - | 43,785.09 | - | - 30,000.00 | 13,785.09 | - | 2,738.82 | 2,738.82 |
| 007528 | Murgon Dog Park Fence | COUNCIL | 40,000.00 | - | - | - | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | 1,864.45 | 37,017.73 | 38,882.18 |
| | **Sub Activity Subtotal** | | **85,000.00** | **13,785.09** | **-** | **-** | **-** | **-** | **98,785.09** | **85,000.00** | **43,785.09** | **-** | **- 30,000.00** | **98,785.09** | **1,864.45** | **82,255.16** | **84,119.61** |
| **Parks - Wondai** | | | | | | | | | | | | | | | | | |
| 007242 | Softfall Replacement - Wondai | COUNCIL | - | 25,000.00 | - | - | - | - | 25,000.00 | 25,000.00 | - | - | - | 25,000.00 | - | - | - |
| 007391 | W4Q5-D&C-WondaiPlaygroundRenewal | W4Q5 | 290,000.00 | 60,000.00 | - | 200,000.00 | - | - | 550,000.00 | 550,000.00 | - | - | - | 550,000.00 | - | 1,157.37 | 1,157.37 |
| | **Sub Activity Subtotal** | | **290,000.00** | **85,000.00** | **-** | **200,000.00** | **-** | **-** | **575,000.00** | **575,000.00** | **-** | **-** | **-** | **575,000.00** | **-** | **1,157.37** | **1,157.37** |
| **Parks - Proston** | | | | | | | | | | | | | | | | | |
| 007525 | Proston Railway Park shade sail | COUNCIL | 40,000.00 | - | - | - | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | - | 35,381.37 | 35,381.37 |
| | **Sub Activity Subtotal** | | **40,000.00** | **-** | **-** | **-** | **-** | **-** | **40,000.00** | **40,000.00** | **-** | **-** | **-** | **40,000.00** | **-** | **35,381.37** | **35,381.37** |
| **Parks - Wooroolin** | | | | | | | | | | | | | | | | | |
| 007576 | GR - DSEC - Wooroolin Skate Park | DSEC | - | - | - | 150,000.00 | - | - | 150,000.00 | - | - | 150,000.00 | - | 150,000.00 | - | 134,774.25 | 134,774.25 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **150,000.00** | **-** | **-** | **150,000.00** | **-** | **-** | **150,000.00** | **-** | **150,000.00** | **-** | **134,774.25** | **134,774.25** |
| **Rail Trails** | | | | | | | | | | | | | | | | | |
| 006936 | DRFA Kingaroy-Murgon Rail Trail Crossing | DRFA | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,279.40 | 1,279.40 |
| 007251 | W4Q5-Design-SBRailTrailPublicArtPlan | W4Q5 | - | - | - | 10,000.00 | - | - | 10,000.00 | - | 10,000.00 | - | - | 10,000.00 | - | - | - |
| 007529 | Tingoora Rail Trail TimberBridge Repair | COUNCIL | 15,000.00 | 623.60 | - | - | - | - | 15,623.60 | 15,000.00 | - | - | 623.60 | 15,623.60 | - | 15,671.00 | 15,671.00 |
| | **Sub Activity Subtotal** | | **15,000.00** | **623.60** | **-** | **10,000.00** | **-** | **-** | **25,623.60** | **15,000.00** | **10,000.00** | **-** | **623.60** | **25,623.60** | **-** | **16,950.40** | **16,950.40** |
| **General** | | | | | | | | | | | | | | | | | |
| 007238 | Priority Playground Audit_replacement | COUNCIL | - | 20,150.34 | - | - | - | - | 20,150.34 | - | 20,150.34 | - | - | 20,150.34 | - | 18,399.50 | 18,399.50 |
| | **Sub Activity Subtotal** | | **-** | **20,150.34** | **-** | **-** | **-** | **-** | **20,150.34** | **-** | **20,150.34** | **-** | **-** | **20,150.34** | **-** | **18,399.50** | **18,399.50** |
| | **Activity Total** | | **652,000.00** | **357,334.57** | **-** | **656,802.61** | **-** | **-** | **1,666,137.18** | **1,220,170.17** | **275,967.01** | **200,000.00** | **- 30,000.00** | **1,666,137.18** | **194,223.18** | **550,671.31** | **744,894.49** |
| **Roads** | | | | | | | | | | | | | | | | | |
| **Bridges** | | | | | | | | | | | | | | | | | |
| 007624 | Gayndah Hivesville Road, Horse Gully Brid | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 18,576.09 | 18,576.09 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **18,576.09** | **18,576.09** |
| **Grav Resheet** | | | | | | | | | | | | | | | | | |
| 007345 | Inverlaw-Deep Creek Rd-SR | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 406.95 | 406.95 |
| 007372 | W4Q5-D&C-Nngo-BurnettSt-AlanDownieF | W4Q5 | - | - | - | 230,814.00 | - | - | 230,814.00 | 204,474.00 | - | 26,340.00 | - | 230,814.00 | - | 14,007.21 | 14,007.21 |
| 007421 | Taromeo - Old Esk Road Resheeting | COUNCIL | - | 200,900.34 | - | - | - | - | 200,900.34 | - | 200,900.34 | - | - | 200,900.34 | - | 261,971.52 | 261,971.52 |
| 007472 | Gravel Resheeting Program 25/26 | COUNCIL | - | - | - | - | - | - | - | 50,000.00 | - | - | - 50,000.00 | - | - | - | - |
| 007477 | Shoulder resheeting Prg (Kearney's Rd) | COUNCIL | 100,000.00 | - | - | - | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | - | - | - |
| 007605 | Jarail Road Gravel Resheeting | COUNCIL | 50,000.00 | - | - | - | - | - | 50,000.00 | - | - | - | 50,000.00 | 50,000.00 | - | 49,966.53 | 49,966.53 |
| | **Sub Activity Subtotal** | | **150,000.00** | **200,900.34** | **-** | **230,814.00** | **-** | **-** | **581,714.34** | **354,474.00** | **200,900.34** | **26,340.00** | **-** | **581,714.34** | **-** | **326,352.21** | **326,352.21** |
| **Pavement Rehab** | | | | | | | | | | | | | | | | | |
| 005479 | Niagara Road (Wind Farm) | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 15,553.39 | - | 15,553.39 |
| 007294 | RTR-Tingoora Chelmsford Rd-Stage 2 | RTR | - | - | - | 353,877.44 | - | - | 353,877.44 | 1,000,000.00 | - | - 646,122.56 | - | 353,877.44 | - | 557,142.81 | 557,142.81 |
| 007297 | W4Q5-D&C-Kingaroy-AliceSt-RoadRehab | W4Q5 | - | - | - | 170,754.53 | - | - | 170,754.53 | - | 170,754.53 | - | - | 170,754.53 | 129,218.77 | 423,773.55 | 552,992.32 |
| 007474 | Major Mechanical Repairs 25/26 | COUNCIL | 875,000.00 | 859,641.28 | - | - | - | - | 1,734,641.28 | 1,755,000.00 | - | - 20,358.72 | - | 1,734,641.28 | 2,537.51 | - | 2,537.51 |
| 007476 | Blackbutt-Crows Nest Rd widening | TIDS | 1,393,124.00 | - | - | 606,876.00 | - | - | 2,000,000.00 | 2,000,000.00 | - | - | - | 2,000,000.00 | 790,719.67 | 550,942.49 | 1,341,662.16 |
| 007582 | Alford Street Kingaroy - MM | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 196,996.79 | 196,996.79 |
| 007584 | Cairns Street / Appin Street Ngo MM | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 1,550.49 | 184,971.38 | 186,521.87 |
| 007585 | Gesslers Road Mgn MM | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 6,380.20 | 450,901.21 | 457,281.41 |
| 007601 | Alford Street Kingaroy - Kingaroy St/Short | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 42,414.50 | 42,414.50 |
| 007617 | Butler Drive, Proston - MM | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 4,718.18 | 64,376.39 | 69,094.57 |
| 007620 | Rodney Street Proston - MM | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 4,251.52 | 4,251.52 |
| | **Sub Activity Subtotal** | | **2,268,124.00** | **859,641.28** | **-** | **1,131,507.97** | **-** | **-** | **4,259,273.25** | **4,755,000.00** | **170,754.53** | **- 666,481.28** | **-** | **4,259,273.25** | **950,678.21** | **2,475,770.64** | **3,426,448.85** |
| **Footpaths & Cycleway** | | | | | | | | | | | | | | | | | |
| 007281 | W4Q5-D&C-NngoCBD-(Fitzroy-Palace) FI | W4Q5 | - | - | - | 46,981.64 | - | - | 46,981.64 | - | 46,981.64 | - | - | 46,981.64 | - | 1,120.16 | 1,120.16 |
| 007283 | W4Q5-D&C-BunyaAv(Dandabah Carpark) | W4Q5 | - | - | - | 33,376.37 | - | - | 33,376.37 | 70,000.00 | - | - 36,623.63 | - | 33,376.37 | 5,838.00 | 6,027.04 | 11,865.04 |
| 007284 | W4Q5-D&C-Murgon-LambSt-FP | W4Q5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,720.44 | 1,720.44 |
| 007299 | SAFEST-(TIDS)-Kingaroy-TessmannsRd 2 | TIDS | - | - | - | - | - | - | - | - | - | - | - | - | - | 3,752.49 | 3,752.49 |
| 007480 | Safe St (TIDS)-Tessmanns Rd Kingaroy - I | SAFEST | 338,673.00 | - | - | 121,327.00 | - | - | 460,000.00 | 460,000.00 | - | - | - | 460,000.00 | 24,273.88 | 15,461.55 | 39,735.43 |
| | **Sub Activity Subtotal** | | **338,673.00** | **-** | **-** | **201,685.01** | **-** | **-** | **540,358.01** | **530,000.00** | **46,981.64** | **- 36,623.63** | **-** | **540,358.01** | **30,111.88** | **28,081.68** | **58,193.56** |
| **Pedestrian Crossing** | | | | | | | | | | | | | | | | | |
| 007118 | STIP-Nanango SHS- Ped Crossing/FP | STIP | - | - | - | - | - | - | - | - | - | - | - | - | - | 5,145.23 | 5,145.23 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **5,145.23** | **5,145.23** |
| **Concrete Medians** | | | | | | | | | | | | | | | | | |
| 007373 | W4Q5-D&CKroyYoungmanSt(AlbertEmgc | W4Q5 | - | - | - | 217,452.00 | - | - | 217,452.00 | 217,452.00 | - | - | - | 217,452.00 | - | 32,384.05 | 32,384.05 |
| 007382 | W4Q5-D&C-KingaroyMedians | W4Q5 | - | - | - | 77,714.00 | - | - | 77,714.00 | 77,714.00 | - | - | - | 77,714.00 | 124,250.73 | 35,736.65 | 159,987.38 |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **295,166.00** | **-** | **-** | **295,166.00** | **295,166.00** | **-** | **-** | **-** | **295,166.00** | **124,250.73** | **68,120.70** | **192,371.43** |
| **Bitumen Resealing** | | | | | | | | | | | | | | | | | |

| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 007107 | W4Q5-D&C-Booie-Radunzs Rd-Reseal | W4Q5 | - | 4,376.87 | - | - | - | - | 4,376.87 | - | 4,376.87 | - | - | 4,376.87 | - | 251.00 | 251.00 |
| 007109 | Kingaroy-Industrial Ave Reseal | COUNCIL | - | 16,717.44 | - | - | - | - | 16,717.44 | - | 16,717.44 | - | - | 16,717.44 | - | 5,599.44 | 5,599.44 |
| 007157 | Nanango-Gipps St-Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 999.46 | 999.46 |
| 007158 | Booie-Hillsdale Rd-Reseal | COUNCIL | - | 17,222.80 | - | - | - | - | 17,222.80 | - | 17,222.80 | - | - | 17,222.80 | - | 17,222.80 | 17,222.80 |
| 007164 | Booie-Malar Road-Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 5,581.00 | 5,581.00 |
| 007167 | Windera-Morgans Road-Reseal | COUNCIL | - | 86,339.80 | - | - | - | - | 86,339.80 | - | 86,339.80 | - | - | 86,339.80 | - | 85,530.02 | 85,530.02 |
| 007214 | Windera-Wilsons Rd-Reseal | COUNCIL | - | 367,532.26 | - | - | - | - | 367,532.26 | - | 367,532.26 | - | - | 367,532.26 | - | 384,891.06 | 384,891.06 |
| 007298 | W4Q5-D&C-Region-Roads Reseals & Upg | W4Q5 | - | - | - | 484,377.54 | - | - | 484,377.54 | - | 389,670.54 | 395,715.00 | - 301,008.00 | 484,377.54 | - | - 329.46 | - 329.46 |
| 007473 | Bitumen Reseal/Rehabilitation Prg 25/26 | TIDS | 1,823,761.00 | 125,584.23 | - | 779,730.00 | - | - | 2,729,075.23 | 5,093,285.00 | 125,584.23 | - | - 2,489,794.00 | 2,729,075.23 | - | - | - |
| 007532 | Woltmanns Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 5,133.78 | 5,133.78 |
| 007534 | RTR - Hardiker Street Reseal | RTR | - | - | - | 15,840.00 | - | - | 15,840.00 | - | - | - | 15,840.00 | 15,840.00 | - | 15,354.41 | 15,354.41 |
| 007535 | RTR - Old Wondai Road Reseal | RTR | - | - | - | 91,980.00 | - | - | 91,980.00 | - | - | - | 91,980.00 | 91,980.00 | - | 45,161.81 | 45,161.81 |
| 007536 | RTR - Pioneer Avenue Reseal | RTR | - | - | - | 37,728.00 | - | - | 37,728.00 | - | - | - | 37,728.00 | 37,728.00 | - | 54,480.74 | 54,480.74 |
| 007537 | Swains Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 23,156.20 | 18,386.15 | 41,542.35 |
| 007538 | RTR - Bond Street Reseal | RTR | - | - | - | 15,840.00 | - | - | 15,840.00 | - | - | - | 15,840.00 | 15,840.00 | - | 15,818.08 | 15,818.08 |
| 007539 | RTR - Blackbutt Crows Nest Road Reseal | RTR | - | - | - | 74,160.00 | - | - | 74,160.00 | - | - | - | 74,160.00 | 74,160.00 | - | 135,427.53 | 135,427.53 |
| 007540 | TIDS - Booie Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 13,183.52 | 327,000.29 | 340,183.81 |
| 007541 | RTR - Cameron Road Reseal | RTR | - | - | - | 64,740.00 | - | - | 64,740.00 | - | - | - | 64,740.00 | 64,740.00 | - | 68,031.28 | 68,031.28 |
| 007542 | RTR - Clark and Swendson Road Reseal | RTR | - | - | - | 159,600.00 | - | - | 159,600.00 | - | - | - | 159,600.00 | 159,600.00 | - | 131,190.15 | 131,190.15 |
| 007543 | RTR - Coulson Street CBD Parking Resea | RTR | - | - | - | 255,742.00 | - | - | 255,742.00 | - | - | - | 255,742.00 | 255,742.00 | - | 169,397.42 | 169,397.42 |
| 007544 | TIDS - East Wooroolin Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 146,369.16 | 146,369.16 |
| 007546 | RTR - John Street Blackbutt Reseal | RTR | - | - | - | 33,600.00 | - | - | 33,600.00 | - | - | - | 33,600.00 | 33,600.00 | - | 36,645.07 | 36,645.07 |
| 007547 | RTR - Kearneys Road Reseal | RTR | - | - | - | 403,200.00 | - | - | 403,200.00 | - | - | - | 403,200.00 | 403,200.00 | 152.27 | 280,191.14 | 280,343.41 |
| 007548 | RTR - Kent Street Reseal | RTR | - | - | - | 51,840.00 | - | - | 51,840.00 | - | - | - | 51,840.00 | 51,840.00 | 15,015.84 | 40,295.44 | 55,311.28 |
| 007549 | RTR - Manumbar Road Reseal | RTR | - | - | - | 540,000.00 | - | - | 540,000.00 | - | - | - | 540,000.00 | 540,000.00 | 10,295.11 | 405,482.70 | 415,777.81 |
| 007550 | RTR - McCord Street Reseal | RTR | - | - | - | 114,840.00 | - | - | 114,840.00 | - | - | - | 114,840.00 | 114,840.00 | 1,704.26 | 90,941.03 | 92,645.29 |
| 007551 | RTR - Minert Street Reseal | RTR | - | - | - | 11,040.00 | - | - | 11,040.00 | - | - | - | 11,040.00 | 11,040.00 | - | 10,975.15 | 10,975.15 |
| 007552 | RTR - Ridley Street Reseal | RTR | - | - | - | 18,000.00 | - | - | 18,000.00 | - | - | - | 18,000.00 | 18,000.00 | - | 12,304.64 | 12,304.64 |
| 007553 | Stubbs Armstrong Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 372,772.57 | 125,902.56 | 498,675.13 |
| 007554 | RTR - Sutherland Drive Reseal | RTR | - | - | - | 36,000.00 | - | - | 36,000.00 | - | - | - | 36,000.00 | 36,000.00 | 671.22 | 57,127.38 | 57,798.60 |
| 007555 | RTR - Freeman Court Reseal | RTR | - | - | - | 34,560.00 | - | - | 34,560.00 | - | - | - | 34,560.00 | 34,560.00 | - | 21,763.39 | 21,763.39 |
| 007556 | RTR-Construction-Goodger Gully Road Re | RTR | - | - | - | 184,080.00 | - | - | 184,080.00 | - | - | - | 184,080.00 | 184,080.00 | 152.28 | 164,477.81 | 164,630.09 |
| 007557 | RTR-Construction-Haly Creek Road Reseal | RTR | - | - | - | 192,744.00 | - | - | 192,744.00 | - | - | - | 192,744.00 | 192,744.00 | 213,499.18 | 289,967.83 | 503,467.01 |
| 007558 | RTR - Kumbia Road Reseal | RTR | - | - | - | 312,780.00 | - | - | 312,780.00 | - | - | - | 312,780.00 | 312,780.00 | 152.27 | 249,603.20 | 249,755.47 |
| 007559 | RTR - Maidenwell Upper Yarraman Road I | RTR | - | - | - | 15,120.00 | - | - | 15,120.00 | - | - | - | 15,120.00 | 15,120.00 | - | 18,570.10 | 18,570.10 |
| 007560 | RTR - Mt McEuen Road Reseal | RTR | - | - | - | 108,648.00 | - | - | 108,648.00 | - | - | - | 108,648.00 | 108,648.00 | - | 112,927.29 | 112,927.29 |
| 007561 | RTR - Youngman Street Parking Reseal | RTR | - | - | - | 18,720.00 | - | - | 18,720.00 | - | - | - | 18,720.00 | 18,720.00 | - | 19,021.49 | 19,021.49 |
| 007562 | Tingoora Chelmsford Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 3,111.84 | 3,111.84 |
| 007606 | Scott Street Wondai Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,216.08 | 1,216.08 |
| 007607 | Mustons Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 7,311.63 | 7,311.63 |
| 007621 | Tessmanns Road Reseal | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,529.82 | 1,529.82 |
| | **Sub Activity Subtotal** | | **1,823,761.00** | **617,773.40** | **-** | **4,054,909.54** | **-** | **-** | **6,496,443.94** | **5,093,285.00** | **1,007,443.94** | **395,715.00** | **-** | **6,496,443.94** | **650,754.72** | **3,580,861.71** | **4,231,616.43** |
| **General** | | | | | | | | | | | | | | | | | |
| 006969 | Advanced Design 23/24 | COUNCIL | 21,543.90 | 10,068.29 | - | - | - | - | 31,612.19 | - | 7,240.00 | - | 24,372.19 | 31,612.19 | - | 32,299.47 | 32,299.47 |
| 007117 | Advanced Design 24/25 | COUNCIL | - | 121,422.83 | - | - | - | - | 121,422.83 | - | 124,251.12 | - | - 2,828.29 | 121,422.83 | 68,319.12 | 131,898.42 | 200,217.54 |
| 007286 | W4Q5-D&C-Boyneside-BilboaRd-Windfarr | W4Q5 | - | - | - | 28,780.26 | - | - | 28,780.26 | - | 28,780.26 | - | - | 28,780.26 | - | 11,327.01 | 11,327.01 |
| 007296 | W4Q5-Design-Bbutt-MorrisSt-RoadSeal | W4Q5 | - | - | - | 823,332.77 | - | - | 823,332.77 | 829,125.00 | - | - 5,792.23 | - | 823,332.77 | 16,572.51 | 741,990.27 | 758,562.78 |
| 007328 | W4Q5-Murgon-Gore St-PWD | W4Q5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2,417.53 | 2,417.53 |
| 007478 | Works Advanced Design 2025/2026 | COUNCIL | 278,456.10 | - | - | - | - | - | 278,456.10 | 300,000.00 | - | - | - 21,543.90 | 278,456.10 | 54,950.00 | 105,226.01 | 160,176.01 |
| 007479 | Emulsion tanks | COUNCIL | 250,000.00 | - | - | - | - | - | 250,000.00 | 250,000.00 | - | - | - | 250,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **550,000.00** | **131,491.12** | **-** | **852,113.03** | **-** | **-** | **1,533,604.15** | **1,379,125.00** | **160,271.38** | **- 5,792.23** | **- 0.00** | **1,533,604.15** | **139,841.63** | **1,025,158.71** | **1,165,000.34** |
| **Urban Drainage** | | | | | | | | | | | | | | | | | |
| 007287 | W4Q5-D&C-Kingaroy-AlfordSt-Drainage | W4Q5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 97.82 | 97.82 |
| 007288 | W4Q5-D&C-Kingaroy-MooynaSt-Kerb&Ch | W4Q5 | - | - | - | 54,560.37 | - | - | 54,560.37 | - | 54,560.37 | - | - | 54,560.37 | - | 3,158.32 | 3,158.32 |
| 007289 | W4Q5-D&C-Crawford-SiefertSt-Drainage | W4Q5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,237.67 | 1,237.67 |
| 007481 | Murgon CBD Stormwater upgrade - Kerb& | COUNCIL | 450,000.00 | - | - | - | - | - | 450,000.00 | 450,000.00 | - | - | - | 450,000.00 | - | 11,161.47 | 11,161.47 |
| 007591 | W4Q5-D&C-Kingaroy-GeorgeSt-Drainage | W4Q5 | - | - | - | 78,032.77 | - | - | 78,032.77 | - | 78,032.77 | - | - | 78,032.77 | 969.86 | 86,729.44 | 87,699.30 |
| | **Sub Activity Subtotal** | | **450,000.00** | **-** | **-** | **132,593.14** | **-** | **-** | **582,593.14** | **450,000.00** | **132,593.14** | **-** | **-** | **582,593.14** | **969.86** | **102,384.72** | **103,354.58** |
| **FD & Complimentary** | | | | | | | | | | | | | | | | | |
| 007306 | Back Creek Rd -Comp Works Gravel resh | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 8,727.27 | - | 8,727.27 |
| 007438 | Farrers Road - Gravel Resheet Comp Wor | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 115,898.94 | 23,837.99 | 139,736.93 |
| 007439 | Borcharts Road Gravel Resheet Comp Wo | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 25,197.71 | 25,197.71 |
| 007475 | Complimentary Works 25/26 | COUNCIL | 875,000.00 | - | - | - | - | - | 875,000.00 | 875,000.00 | - | - | - | 875,000.00 | - | - | - |
| 007565 | Kings Bridge Rd CompWorks Concrete Re | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 15,785.00 | 15,785.00 |
| 007568 | Nystrom Duffey Rd Gravel Resheet Comp | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 12,050.00 | 12,050.00 |
| 007570 | Ryan Reagon Road Gravel Resheet Comp | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 2,145.00 | 2,145.00 |
| 007573 | Upper Barkers Crk Rd GravelMaterial Con | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 21,894.20 | 21,894.20 |
| 007574 | Wengenville Glencliffe Rd Gravel CompW | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 976.52 | 976.52 |
| 007575 | Williams Road GravelMaterial CompWorks | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 3,696.42 | 3,696.42 |
| 007586 | Rodney Street Gravel Resheet CompWork | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 14,381.24 | 14,381.24 |
| 007587 | Whitaker Road Additional Works | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 17,716.90 | 17,716.90 |
| 007588 | Reedy Creek Road ShoulderGrade Compl | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 11,323.00 | 11,323.00 |
| 007626 | River Road, Bullcamp Formation Resheet | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 2,153.02 | 2,153.02 |
| | **Sub Activity Subtotal** | | **875,000.00** | **-** | **-** | **-** | **-** | **-** | **875,000.00** | **875,000.00** | **-** | **-** | **-** | **875,000.00** | **124,626.21** | **151,157.00** | **275,783.21** |
| **FD & Betterment** | | | | | | | | | | | | | | | | | |
| 006736 | Flood Damage - Council Betterment | COUNCIL | - | 384,162.30 | - | - | - | - | 384,162.30 | - | 384,162.30 | - | - | 384,162.30 | - | - | - |
| 006813 | EV03 Betterment Mondure Crossing Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 687,663.28 | 687,663.28 |

| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 007041 | EV01 Betterment Finnemores Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 202,169.02 | 202,169.02 |
| 007042 | EV01 Betterment Greenview Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 595.00 | 595.00 |
| 007044 | EV01 Betterment Ironpot Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 123,817.38 | 123,817.38 |
| 007046 | EV01 Betterment Kings Bridge Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 24,271.00 | 24,271.00 |
| 007047 | EV01 Betterment Lamperds Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 10,267.50 | 10,267.50 |
| 007048 | EV01 Betterment M'Well Upper Yarraman | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 8,713.80 | 8,713.80 |
| 007049 | EV01 Betterment Manumbar Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 126,569.42 | 126,569.42 |
| 007051 | EV01 Betterment Old Wondai Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 8,763.11 | 8,763.11 |
| 007054 | EV01 Betterment Recreation Drive | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 110,545.10 | 110,545.10 |
| 007055 | EV01 Betterment Smiths Road Inverlaw | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 122,651.25 | 122,651.25 |
| 007057 | EV01 Betterment Trouts Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 106,123.93 | 106,123.93 |
| 007058 | EV03 Betterment Arthur Street East | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 11,519.50 | 11,519.50 |
| 007060 | EV03 Betterment Tim Dwyer Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 183,717.06 | 183,717.06 |
| 007061 | EV03 Betterment Weeks Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 8,575.02 | 8,575.02 |
| 007062 | EV04 Betterment Manar Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 2,115.00 | 2,115.00 |
| 007063 | EV04 Betterment Magee Road | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 5,639.00 | 5,639.00 |
| 007086 | EVO_Project Mgmt_QRA Funded Betterm | QRA | - | - | - | - | - | - | - | - | - | - | - | - | - | 58,760.75 | 58,760.75 |
| | **Sub Activity Subtotal** | | **-** | **384,162.30** | **-** | **-** | **-** | **-** | **384,162.30** | **-** | **384,162.30** | **-** | **-** | **384,162.30** | **-** | **1,802,476.12** | **1,802,476.12** |
| | **Activity Total** | | **6,455,558.00** | **2,193,968.44** | **-** | **6,898,788.69** | **-** | **-** | **15,548,315.13** | **13,732,050.00** | **2,103,107.27** | **- 286,842.14** | **- 0.00** | **15,548,315.13** | **2,021,233.24** | **9,584,084.81** | **11,605,318.05** |
| **Water Services** | | | | | | | | | | | | | | | | | |
| **Tourism - Yallakool** | | | | | | | | | | | | | | | | | |
| 007456 | YallakoolWTP Process Cntrl/SCADA rene | COUNCIL | 70,000.00 | - | - | - | - | - | 70,000.00 | 70,000.00 | - | - | - | 70,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **70,000.00** | **-** | **-** | **-** | **-** | **-** | **70,000.00** | **70,000.00** | **-** | **-** | **-** | **70,000.00** | **-** | **-** | **-** |
| **Water - General Oper** | | | | | | | | | | | | | | | | | |
| 006898 | S3 - PC, SCADA & Telemetry WATER | COUNCIL | 350,000.00 | - | - | - | - | - | 350,000.00 | 350,000.00 | - | - | - | 350,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **350,000.00** | **-** | **-** | **-** | **-** | **-** | **350,000.00** | **350,000.00** | **-** | **-** | **-** | **350,000.00** | **-** | **-** | **-** |
| **Water - Kingaroy** | | | | | | | | | | | | | | | | | |
| 005547 | Gordonbrook WTP - Post Con Contract W | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 103,462.01 | 57,477.27 | 160,939.28 |
| 006516 | Gordonbrook Off Stream Storage Design | BOR_6 | - | 266,402.12 | - | - | - | - | 266,402.12 | - | 266,402.12 | - | - | 266,402.12 | 6,066.65 | 179,542.80 | 185,609.45 |
| 006596 | Gordonbrook Hydrological Modelling | COUNCIL | - | 4,197.47 | - | - | - | - | 4,197.47 | - | 4,197.47 | - | - | 4,197.47 | 29,710.20 | 47,015.00 | 76,725.20 |
| 007133 | Gordonbrook Dam Safety Hazard Action F | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 92,612.18 | 92,612.18 |
| 007134 | Gordonbrook WTP Raw Water Off Stream | REFF | - | 3,107,459.41 | - | 6,871,032.14 | - | - | 9,978,491.55 | 5,800,000.00 | 4,178,491.55 | - | - | 9,978,491.55 | 238,639.28 | 1,098,132.31 | 1,336,771.59 |
| 007235 | Gordonbrook WTP Clear water pump 3 | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | 55,700.00 | - | 55,700.00 |
| 007336 | LGGSP - Detailed Design Kroy Trunk Infra | LGGSP | - | 46,939.18 | - | 70,408.76 | - | - | 117,347.94 | - | 117,347.94 | - | - | 117,347.94 | - | 91,310.69 | 91,310.69 |
| 007348 | Mt Wooroolin Res Roof Replacement | COUNCIL | - | 521,109.90 | - | - | - | - | 521,109.90 | - | 521,109.90 | - | - | 521,109.90 | 1,200.00 | 562,853.52 | 564,053.52 |
| 007444 | Kingaroy Ivy St (Fisher to Campbell) | COUNCIL | - | 471,250.00 | - | - | - | - | 471,250.00 | 471,250.00 | - | - | - | 471,250.00 | 17,387.65 | 126,398.33 | 143,785.98 |
| 007445 | K'roy Taabinga Heights Res Switchboard | COUNCIL | 52,500.00 | - | - | - | - | - | 52,500.00 | 52,500.00 | - | - | - | 52,500.00 | - | - | - |
| 007448 | K'roy WMR- K'roy St (River Rd-KnightSt) | COUNCIL | 210,000.00 | - | - | - | - | - | 210,000.00 | 210,000.00 | - | - | - | 210,000.00 | 725.78 | 94,587.61 | 95,313.39 |
| 007451 | Kingaroy WMR- WILLIAM ST (Alford Stree | COUNCIL | 131,250.00 | - | - | - | - | - | 131,250.00 | 131,250.00 | - | - | - | 131,250.00 | 2,747.64 | 175,467.81 | 178,215.45 |
| 007454 | GBrookDam Safety Haz Action-Fencing | COUNCIL | 52,500.00 | - | - | - | - | - | 52,500.00 | 52,500.00 | - | - | - | 52,500.00 | - | - | - |
| 007455 | GBrookDam Safety Hazard Action-Pipewc | COUNCIL | 87,500.00 | - | - | - | - | - | 87,500.00 | 87,500.00 | - | - | - | 87,500.00 | - | - | - |
| 007457 | Gordonbrook Dam Survey for Dredging | COUNCIL | 332,500.00 | - | - | - | - | - | 332,500.00 | 332,500.00 | - | - | - | 332,500.00 | - | 16,998.00 | 16,998.00 |
| 007458 | Premier drive storage reline | COUNCIL | 625,000.00 | - | - | - | - | - | 625,000.00 | 625,000.00 | - | - | - | 625,000.00 | - | - | - |
| 007599 | D&C Mt Wooroolin Reservoir No.3 | LGGSP | - | 881,920.00 | - | 1,322,880.00 | - | - | 2,204,800.00 | - | - | 2,204,800.00 | - | 2,204,800.00 | - | - | - |
| 007611 | CEUF - Gordonbrook WTP Solar Panels ( | COUNCIL | 49,261.67 | 34,320.33 | - | 83,582.00 | - | - | 167,164.00 | - | - | - | 167,164.00 | 167,164.00 | - | - | - |
| | **Sub Activity Subtotal** | | **1,540,511.67** | **5,333,598.41** | **-** | **8,347,902.90** | **-** | **-** | **15,222,012.98** | **7,762,500.00** | **5,087,548.98** | **2,204,800.00** | **167,164.00** | **15,222,012.98** | **455,639.21** | **2,542,395.52** | **2,998,034.73** |
| **Water - Murgon** | | | | | | | | | | | | | | | | | |
| 007148 | WMR-Murgon Hospital Res&Macalister | COUNCIL | 155,750.00 | - | - | - | - | - | 155,750.00 | 155,750.00 | - | - | - | 155,750.00 | - | 9,802.67 | 9,802.67 |
| 007149 | WMU -Reservoir and Beresford St | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 92,992.34 | 92,992.34 |
| 007440 | Murgon Garrick Street - Water Main | COUNCIL | 166,250.00 | - | - | - | - | - | 166,250.00 | 166,250.00 | - | - | - | 166,250.00 | - | 10,715.63 | 10,715.63 |
| 007442 | Murgon LambSt(BunyaHwy Xing-Stephens | COUNCIL | 31,500.00 | - | - | - | - | - | 31,500.00 | 31,500.00 | - | - | - | 31,500.00 | - | 6,989.34 | 6,989.34 |
| 007446 | Murgon NuttSt(Hospital)WPS Process Ctrl | COUNCIL | - | - | - | - | - | - | - | 43,750.00 | - | - | - 43,750.00 | - | - | - | - |
| 007447 | Murgon Town Pumps WPS Switchboard re | COUNCIL | 262,500.00 | - | - | - | - | - | 262,500.00 | 262,500.00 | - | - | - | 262,500.00 | - | - | - |
| 007452 | Regional Water Meter Replacement | COUNCIL | 125,000.00 | - | - | - | - | - | 125,000.00 | 125,000.00 | - | - | - | 125,000.00 | 14,414.85 | 432.12 | 14,846.97 |
| | **Sub Activity Subtotal** | | **741,000.00** | **-** | **-** | **-** | **-** | **-** | **741,000.00** | **784,750.00** | **-** | **-** | **- 43,750.00** | **741,000.00** | **14,414.85** | **120,932.10** | **135,346.95** |
| **Water - Nanango** | | | | | | | | | | | | | | | | | |
| 007152 | WMR-WICKHAM ST (Appin St East-Gooc | COUNCIL | - | 95,609.23 | - | - | - | - | 95,609.23 | - | - | - | 95,609.23 | 95,609.23 | - | 95,609.23 | 95,609.23 |
| 007441 | Nanango Bunker Ave, Fairway to Flag St. | COUNCIL | 185,500.00 | 16,753.78 | - | - | - | - | 202,253.78 | 185,500.00 | - | - | 16,753.78 | 202,253.78 | - | 200,842.98 | 200,842.98 |
| 007443 | Nanango Fitzroy St (Appin to Alfred) | COUNCIL | 52,500.00 | 59,246.22 | - | - | - | - | 111,746.22 | 52,500.00 | - | - | 59,246.22 | 111,746.22 | - | 110,933.06 | 110,933.06 |
| | **Sub Activity Subtotal** | | **238,000.00** | **171,609.23** | **-** | **-** | **-** | **-** | **409,609.23** | **238,000.00** | **-** | **-** | **171,609.23** | **409,609.23** | **-** | **407,385.27** | **407,385.27** |
| **Water - Proston** | | | | | | | | | | | | | | | | | |
| 007450 | Proston Reservoir to Beresford St | COUNCIL | 230,825.00 | - | - | - | - | - | 230,825.00 | 230,825.00 | - | - | - | 230,825.00 | - | - | - |
| | **Sub Activity Subtotal** | | **230,825.00** | **-** | **-** | **-** | **-** | **-** | **230,825.00** | **230,825.00** | **-** | **-** | **-** | **230,825.00** | **-** | **-** | **-** |
| **Water - Wondai** | | | | | | | | | | | | | | | | | |
| 007355 | Emergency Pump Replacement - Wondai | COUNCIL | - | 16,488.50 | - | - | - | - | 16,488.50 | - | 15,195.12 | - | 1,293.38 | 16,488.50 | - | 16,488.50 | 16,488.50 |
| | **Sub Activity Subtotal** | | **-** | **16,488.50** | **-** | **-** | **-** | **-** | **16,488.50** | **-** | **15,195.12** | **-** | **1,293.38** | **16,488.50** | **-** | **16,488.50** | **16,488.50** |
| | **Activity Total** | | **3,170,336.67** | **5,521,696.14** | **-** | **8,347,902.90** | **-** | **-** | **17,039,935.71** | **9,436,075.00** | **5,102,744.10** | **2,204,800.00** | **296,316.61** | **17,039,935.71** | **470,054.06** | **3,087,201.39** | **3,557,255.45** |
| **Wastewater Services** | | | | | | | | | | | | | | | | | |
| **Tourism - Yallakool** | | | | | | | | | | | | | | | | | |
| 007465 | Yallakool SPS1 Switchboard Renewal | COUNCIL | 262,500.00 | - | - | - | - | - | 262,500.00 | 262,500.00 | - | - | - | 262,500.00 | - | - | - |
| 007466 | Yallakool SPS2 Switchboard Renewal | COUNCIL | 262,500.00 | - | - | - | - | - | 262,500.00 | 262,500.00 | - | - | - | 262,500.00 | - | - | - |

| Project Code | Project Description | Grant Funding Body | Depreciation | Restricted Cash | Proceeds from Sale of Fleet | Grant Funding | Loans | Developer Contribution | Total Budgeted Funding | 2025/2026 Adopted Budget | 2024/2025 Continued Projects | First Quarter Budget Adjustments | Second Quarter Budget Adjustments | Total Available Budget | Commitments | 2025/2026 Actual Expenditure | 2025/2026 Actual Expenditure & Commitments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Sub Activity Subtotal** | | **525,000.00** | **-** | **-** | **-** | **-** | **-** | **525,000.00** | **525,000.00** | **-** | **-** | **-** | **525,000.00** | **-** | **-** | **-** |
| **Wastewater - General** | | | | | | | | | | | | | | | | | |
| 006903 | S3- PC, SCADA &Telemetry WASTEWA1 | COUNCIL | - | 262,500.00 | - | - | - | - | 262,500.00 | 262,500.00 | - | - | - | 262,500.00 | - | - | - |
| 007603 | Emergency Asset Replacement - Wastew | COUNCIL | - | 12,090.80 | - | - | - | - | 12,090.80 | - | - | - | 12,090.80 | 12,090.80 | - | 12,090.80 | 12,090.80 |
| | **Sub Activity Subtotal** | | **-** | **274,590.80** | **-** | **-** | **-** | **-** | **274,590.80** | **262,500.00** | **-** | **-** | **12,090.80** | **274,590.80** | **-** | **12,090.80** | **12,090.80** |
| **Wastewater - Blackbu** | | | | | | | | | | | | | | | | | |
| 007354 | Sewer Main Extension - John St Blackbutt | COUNCIL | - | 38,000.00 | - | - | - | - | 38,000.00 | - | 38,000.00 | - | - | 38,000.00 | - | 26,826.00 | 26,826.00 |
| | **Sub Activity Subtotal** | | **-** | **38,000.00** | **-** | **-** | **-** | **-** | **38,000.00** | **-** | **38,000.00** | **-** | **-** | **38,000.00** | **-** | **26,826.00** | **26,826.00** |
| **Wastewater - Kingaro** | | | | | | | | | | | | | | | | | |
| 006905 | Kingaroy SPS2 Tessmanns Rd Switchboa | COUNCIL | 175,000.00 | - | - | - | - | - | 175,000.00 | 175,000.00 | - | - | - | 175,000.00 | - | - | - |
| 007128 | Kingaroy Recycling Plant - Replacement | COUNCIL | - | 364,720.33 | - | - | - | - | 364,720.33 | - | 364,720.33 | - | - | 364,720.33 | 64,608.93 | 74,894.89 | 139,503.82 |
| 007129 | Kingaroy SPS3 Logan St SCADA renewal | COUNCIL | 70,000.00 | - | - | - | - | - | 70,000.00 | 70,000.00 | - | - | - | 70,000.00 | - | - | - |
| 007131 | W4Q5-Design-Kroy North Development1st | W4Q5 | - | 4,932.15 | - | 43,533.29 | - | - | 48,465.44 | - | 78,359.93 | - | - 29,894.49 | 48,465.44 | - | 48,465.44 | 48,465.44 |
| 007132 | Kingaroy SPS6 Barron Pk Dr SCADA rene | COUNCIL | 70,000.00 | - | - | - | - | - | 70,000.00 | 70,000.00 | - | - | - | 70,000.00 | - | - | - |
| 007350 | Sewer Main Extension - Williams St Kinga | COUNCIL | - | 23,000.00 | - | - | - | - | 23,000.00 | - | 23,000.00 | - | - | 23,000.00 | - | 1,563.34 | 1,563.34 |
| 007375 | W4Q5-Construct-KRoyNorthDevFirstAve | W4Q5 | - | - | - | 690,000.00 | - | 431,988.00 | 1,121,988.00 | 1,121,988.00 | - | - | - | 1,121,988.00 | - | - | - |
| 007460 | Kingaroy Recycling Plant - Replacement | COUNCIL | - | 2,800,000.00 | - | - | - | - | 2,800,000.00 | 2,800,000.00 | - | - | - | 2,800,000.00 | - | - | - |
| 007467 | SBRC Inflow/Infiltration Assessment WW | LOAN | 175,000.00 | - | - | - | - | - | 175,000.00 | 175,000.00 | - | - | - | 175,000.00 | - | - | - |
| 007612 | CEUF - Kingaroy STP Solar Panels (W&W | COUNCIL | 53,729.18 | 37,432.82 | - | 91,162.00 | - | - | 182,324.00 | - | - | - | 182,324.00 | 182,324.00 | - | - | - |
| | **Sub Activity Subtotal** | | **543,729.18** | **3,230,085.30** | **-** | **824,695.29** | **-** | **431,988.00** | **5,030,497.77** | **4,411,988.00** | **466,080.26** | **-** | **152,429.51** | **5,030,497.77** | **64,608.93** | **124,923.67** | **189,532.60** |
| **Wastewater - Murgon** | | | | | | | | | | | | | | | | | |
| 007463 | Murgon PerkinsSt SPS2 ProcessCntrl/SC/ | COUNCIL | - | - | - | - | - | - | - | 35,000.00 | - | - | - 35,000.00 | - | - | - | - |
| 007464 | Murgon Houghton St SPS3 Process Contr | COUNCIL | - | - | - | - | - | - | - | 35,000.00 | - | - | - 35,000.00 | - | - | - | - |
| | **Sub Activity Subtotal** | | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **70,000.00** | **-** | **-** | **- 70,000.00** | **-** | **-** | **-** | **-** |
| **Wastewater - Nanango** | | | | | | | | | | | | | | | | | |
| 006793 | Nanango SPS2 Switchboard renewal, etc. | COUNCIL | 210,000.00 | - | - | - | - | - | 210,000.00 | 210,000.00 | - | - | - | 210,000.00 | - | - | - |
| 006794 | Nanango SPS3 Switchboard renewal, etc. | COUNCIL | 140,000.00 | - | - | - | - | - | 140,000.00 | 140,000.00 | - | - | - | 140,000.00 | - | - | - |
| 007352 | Sewer Main Extension - Mill Flat Rd Nan | COUNCIL | - | 45,000.00 | - | - | - | - | 45,000.00 | - | 45,000.00 | - | - | 45,000.00 | - | 17,904.60 | 17,904.60 |
| 007353 | Sewer Main Extension - Palace Lane Nan | COUNCIL | - | 1,365.00 | - | - | - | - | 1,365.00 | - | 1,365.00 | - | - | 1,365.00 | 1,365.00 | 34,088.82 | 35,453.82 |
| 007358 | Aerator Replacement Nanango WWTP | COUNCIL | 35,000.00 | - | - | - | - | - | 35,000.00 | - | - | - | 35,000.00 | 35,000.00 | - | 15,831.67 | 15,831.67 |
| 007459 | Ngo STP-Switchboard renew&Process Cn | COUNCIL | 525,000.00 | - | - | - | - | - | 525,000.00 | 525,000.00 | - | - | - | 525,000.00 | 54,000.00 | 129,912.67 | 183,912.67 |
| 007461 | Sewer Main Extension - Palace Lane Nan | COUNCIL | - | - | - | - | - | - | - | 35,000.00 | - | - | - 35,000.00 | - | - | - | - |
| 007613 | CEUF - Nanango STP Solar Panels (W&W | COUNCIL | 10,759.16 | 7,495.84 | - | 18,255.00 | - | - | 36,510.00 | - | - | - | 36,510.00 | 36,510.00 | - | - | - |
| | **Sub Activity Subtotal** | | **920,759.16** | **53,860.84** | **-** | **18,255.00** | **-** | **-** | **992,875.00** | **910,000.00** | **46,365.00** | **-** | **36,510.00** | **992,875.00** | **55,365.00** | **197,737.76** | **253,102.76** |
| **CED - Proston** | | | | | | | | | | | | | | | | | |
| 007462 | Proston CED Pump Station Replace & Re | COUNCIL | 210,000.00 | - | - | - | - | - | 210,000.00 | 210,000.00 | - | - | - | 210,000.00 | - | - | - |
| | **Sub Activity Subtotal** | | **210,000.00** | **-** | **-** | **-** | **-** | **-** | **210,000.00** | **210,000.00** | **-** | **-** | **-** | **210,000.00** | **-** | **-** | **-** |
| | **Activity Total** | | **2,199,488.34** | **3,596,536.94** | **-** | **842,950.29** | **-** | **431,988.00** | **7,070,963.57** | **6,389,488.00** | **550,445.26** | **-** | **131,030.31** | **7,070,963.57** | **119,973.93** | **361,578.23** | **481,552.16** |
| **Waste** | | | | | | | | | | | | | | | | | |
| **Waste Management - R** | | | | | | | | | | | | | | | | | |
| 005136 | Kingaroy Transfer Station Upgrade - Cap | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 6,934.88 | 6,934.88 |
| 006607 | New Maidenwell Transfer Station | COUNCIL | - | 317,112.23 | - | - | - | - | 317,112.23 | - | 317,112.23 | - | - | 317,112.23 | - | 182,527.85 | 182,527.85 |
| 006990 | Future Landfill Disposal - Feasibility | COUNCIL | - | - | - | - | 644,005.47 | - | 644,005.47 | 500,000.00 | 144,005.47 | - | - | 644,005.47 | - | 36,296.25 | 36,296.25 |
| 007097 | Ngo Weighbridge-Approach/Internal Road | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 5,935.81 | 5,935.81 |
| 007098 | Wondai Weighbridge-Approach/Internal Rd | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 2,560.00 | 2,560.00 |
| 007122 | LRCI_4_A-Maindenwell Tfr Station Access | LRCI_4_A | - | - | - | - | - | - | - | - | - | - | - | - | 10,538.00 | 26,760.91 | 37,298.91 |
| 007123 | Nanango Leachate Collection Trench | COUNCIL | - | 264,936.00 | - | - | - | - | 264,936.00 | 264,936.00 | - | - | - | 264,936.00 | - | - | - |
| 007124 | Kingaroy Leachate Collection Trench | COUNCIL | - | 476,885.00 | - | - | - | - | 476,885.00 | 476,885.00 | - | - | - | 476,885.00 | - | - | - |
| 007125 | Feasibility - Kingaroy New Landfill Cell | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | - 6,934.88 | - 6,934.88 |
| 007326 | Transfer Station Electronic gated system | COUNCIL | - | - | - | - | - | - | - | - | - | - | - | - | - | 40.00 | 40.00 |
| 007468 | Fencing and Electronic Gate for Cloyna | COUNCIL | 100,000.00 | - | - | - | - | - | 100,000.00 | 100,000.00 | - | - | - | 100,000.00 | 99,857.69 | 3,337.47 | 103,195.16 |
| 007469 | Replacement of RORO Bins (Skip) | COUNCIL | 40,000.00 | - | - | - | - | - | 40,000.00 | 40,000.00 | - | - | - | 40,000.00 | - | 28,700.00 | 28,700.00 |
| 007470 | Site Surveillance- Hville, Home Ck & Mem | COUNCIL | 15,000.00 | - | - | - | - | - | 15,000.00 | 15,000.00 | - | - | - | 15,000.00 | - | - | - |
| 007600 | LG Battery Collection Program | LGBCP | - | - | - | 58,550.00 | - | - | 58,550.00 | - | - | 58,550.00 | - | 58,550.00 | - | - | - |
| 007610 | GR - Local Government Battery Collection | LGBCP | - | - | - | - | - | - | - | - | - | - | - | - | 9,305.00 | 56,500.00 | 65,805.00 |
| | **Sub Activity Subtotal** | | **155,000.00** | **1,058,933.23** | **-** | **58,550.00** | **644,005.47** | **-** | **1,916,488.70** | **1,396,821.00** | **461,117.70** | **58,550.00** | **-** | **1,916,488.70** | **119,700.69** | **342,658.29** | **462,358.98** |
| | **Activity Total** | | **155,000.00** | **1,058,933.23** | **-** | **58,550.00** | **644,005.47** | **-** | **1,916,488.70** | **1,396,821.00** | **461,117.70** | **58,550.00** | **-** | **1,916,488.70** | **119,700.69** | **342,658.29** | **462,358.98** |
| | **Grand Total** | | **17,525,903.01** | **18,905,744.63** | **424,000.00** | **18,287,071.98** | **644,005.47** | **431,988.00** | **56,218,713.09** | **42,824,429.17** | **10,352,896.77** | **2,588,313.23** | **453,073.92** | **56,218,713.09** | **5,754,504.36** | **21,040,675.47** | **26,795,179.83** |

**irants Inwards Listing 2025/26**

**: at 31/3/2026**

| Grant Project Name | Grant ID | Grant Name | Grant Body Name | Type | Grant Value | $ Amount Received to date | Estimated Project Cost | Amount Spent | Grant Project Completion Due Date | Grant Status | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| iGSP 24/28 Kingaroy Trunk Water Supply Design | 500320 | 2024-28 Local Government Grants & Subsidies Program | Dept of State Development, Manufacturing, Infrastructure & Planning | Capital | 174,000.00 | 52,200.00 | 263,962.75 | 263,962.75 | 31/12/2025 | Acquittal Submitted | |
| RA DRFA - Event 1 Capital | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Capital | 1,667,593.47 | $ 1,667,593.47 | 2,078,867.02 | 2,078,867.02 | 30/06/2025 | Completed | |
| RA DRFA Rail Trail | 500254 | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Capital | $ 405,406.96 | $ 405,406.96 | 388,298.48 | 405,473.88 | 30/09/2024 | Completed | |
| ack Spot (Appin St West/Cairns St Intersection Nanango) | 500292 | Black Spot Program | Dept of Transport & Main Roads | Capital | 247,500.00 | 123,750.00 | 247,500.00 | 62,943.07 | 1/06/2024 | Active | In talks with the department on a variation for this project to proceed. |
| :UF Solar Infrastructure | 500396 | Community Energy Upgrades Fund Rd 2 | Dept of Industry, Science & Resources | Capital | 243,726.00 | 73,118.00 | 487,452.00 | - | 19/12/2026 | Active | |
| IC Memberambi Barkers Creek Road | 500348 | Country Roads Connect | Dept of Transport & Main Roads | Capital | 1,823,000.00 | 911,500.00 | 1,823,000.00 | - | 30/06/2027 | Active | |
| iEC Wooroolin Skate Park | 500362 | Dept of Sport Election Commitments | Department of Sport | Capital | 150,000.00 | 75,000.00 | 150,000.00 | 134,774.25 | 30/06/2027 | Active | |
| nancial Assistance Grant 2025/2026 | 500357 | Financial Assistance Grant | Dept of State Development, Manufacturing, Infrastructure & Planning | Operational | | 5,401,833.50 | | | 30/06/2026 | Active | |
| RMLGGP Flying Fox Roost Management Blackbutt | 500345 | Blackbutt Resident Subsidy Program to Manage Flying Fox | Flying Fox Roost Management in Qld | Operational | 32,197.99 | $ 22,540.00 | 65,197.86 | - | 30/10/2026 | Active | |
| RR ABC Heywire Youth Innovation - How to Adult | 500371 | FRRR ABC Heywire Youth Innovation Grant | FRRR ABC Heywire Youth Innovation Grant | Operational | 10,000.00 | $ 10,000.00 | 11,880.00 | - | 31/08/2026 | Active | |
| t Ready 2025/26 | 500370 | 2025/26 Get Ready Qld Grant | QRA DRFA Get Ready Qld Grant | Operational | 18,420.00 | $ 16,578.00 | 18,420.00 | 9,589.15 | 30/06/2026 | Active | |
| eritage Museum Significance Assessment | 500346 | Community Heritage Grant 25/26 | Community Heritage Grant | Operational | 5,193.00 | $ - | 5,193.00 | - | 2/11/2026 | Active | |
| egal Dumping Partnership (2A, 2A Ext & 2A Ext 2) | 500192/ 500233/ 500305 | Local Government Illegal Dumping Partnership Program (Rd 2A) | Department of Environment & Science | Operational | 444,085.00 | 336,085.00 | 444,085.00 | 386,021.22 | 30/06/2026 | Active | |
| iBCP Making Problem Battery Collection Simple | 500360 | Local Government Battery Collection Program | Local Government Battery Collection Program | Operational | 91,769.41 | 55,061.40 | 187,821.84 | - | 28/02/2027 | Active | |
| iGSP Mt Wooroolin Reservoir No. 3 | 500347 | 2024-28 Local Government Grants & Subsidies Program | Dept of State Development, Manufacturing, Infrastructure & Planning | Capital | 1,322,880.00 | 396,864.00 | 2,204,800.00 | - | 3/11/2028 | Active | |
| RA DRFA - Event 3 Capital | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Capital | 958,732.28 | $ 958,732.28 | 1,774,553.48 | 1,774,553.48 | 30/09/2025 | Active | |
| RA DRFA - Event 3 Operational | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | | 988,956.86 | 1,321,723.50 | 1,321,723.50 | 30/09/2025 | Active | |
| RA DRFA - Event 4 Capital | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Capital | 712,791.88 | $ 777,573.47 | 774,763.78 | 728,466.92 | 30/06/2025 | Active | |
| RA DRFA - Event 4 Operational | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | | $ 4,550,638.92 | 4,836,255.53 | 4,836,255.53 | 30/06/2025 | Active | |
| RA DRFA - Event 5 Operational | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | | $ 39,796,298.94 | 41,172,941.99 | 41,172,941.99 | 30/09/2025 | Active | |
| RA DRFA - Event 6 Operational | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | | $ 7,840,032.88 | 8,484,808.46 | 8,484,808.46 | | Active | |
| RA DRFA - Event 7 Operational | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | 20,736,462.67 | $ 20,736,462.67 | 19,044,263.66 | 19,044,263.66 | | Active | |
| RA DRFA - Event 8 Operational | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | - | $ - | 74,599.97 | 74,599.97 | | Active | |
| RA DRFA - Event 1 2025/26 Operational March 2025 | | Disaster Recovery Funding Arrangement | Queensland Reconstruction Authority | Operational | - | $ - | 572,167.62 | 572,167.62 | | Active | |
| RDF 24/26 | 500313 | Regional Arts Development Fund | RADF | Operational | 84,000.00 | 42,000.00 | 140,000.00 | 22,376.00 | 30/06/2026 | Active | |
| :FF Kingaroy Water for Growth (Gordonbrook WTP Raw Water If Stream Storage) | 500333 | Regional Economic Futures Fund | Dept of State Development | Capital | 7,084,590.00 | 3,500,000.00 | 10,154,541.00 | 1,406,053.83 | 15/10/2025 | Active | |
| :FF South Burnett Industrial Circular Economy Precinct | 500321 | Regional Economic Futures Fund | Dept of State Development | Operational | $750,000.00 | $ 520,438.63 | $750,000.00 | 662,838.61 | 30/06/2026 | Active | |
| :FF Yurika Dark Fibre | 500316 | Regional Economic Futures Fund | Dept of State Development | Operational | 6,800,000.00 | 4,760,000.00 | 7,197,068.00 | 4,956,666.59 | 15/07/2025 | Active | |
| TR 2024-2029 | | Roads to Recovery Program | Dept of Infrastructure, Transport, Regional Development, Communications & the Arts | Capital | 14,471,345.00 | 2,406,436.00 | 14,471,345.00 | 6,957,241.90 | 30/06/2029 | Active | 5 year program allocation - projects not allocated to funding as yet |
| : Rd9 Wondai Tree Replacement | 500335 | Stronger Communities | Department of Industry, Science & Resources | Operational | 9,600.00 | - | 19,282.00 | 11,448.38 | 30/05/2026 | Active | |
| PP CCTV, Lights, Fencing Upgrade | 500376 | Secure Communities Partnership Program Rd1 | Secure Communities Partnerships Program | Capital | 200,000.00 | 140,000.00 | 400,000.00 | 59,437.59 | 30/06/2026 | Active | |
| S Vehicle Ford Ranger - Kingaroy | 500403 | State Emergency Services Support Grant 25/26 | Qld Fire & Emergency Service | Capital | 71,314.31 | - | 71,314.31 | 66,880.99 | 30/06/2026 | Active | |
| F - Update SBRC Planning Scheme Amendment | 500341 | Scheme Supply Fund Pathway 1 | | Operational | 100,000.00 | - | 100,000.00 | 50,272.50 | 30/06/2027 | Active | |
| DS 2025/26 | | | | | 3,269,524.00 | | 5,093,285.00 | 1,824,676.18 | 30/06/2026 | Active | |
| IACC FarmFest 2026 and Iron+Clay | 500350 | Tackling Regional Adversity through Connected Communities | Qld Health | Operational | 66,000.00 | 66,000.00 | 62,136.36 | 6,352.55 | 31/07/2027 | Active | |
| orks for Queensland Round 5 2024-2027 | 500307 | Works for Qld 2024-2027 | Dept of Local Government, Racing & Multicultural Affairs | Capital & Operational | 8,440,000.00 | 4,220,000.00 | 8,440,000.00 | 2,791,532.91 | 30/06/2027 | Active | |

## 13.2 DOG REGISTRATIONS

**File Number:** **07.04.2026**

**Author:** **General Manager Finance & Liveability**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Current overdue dog registration statistics

### SUMMARY

Information on current overdue dog registration statistics and next steps to collect funds

### OFFICER'S RECOMMENDATION

That South Burnett Regional Council approve a Systematic Inspection Program for properties within the South Burnett Regional Council's jurisdiction in accordance with section 113 of the *Animal Management (Cats and Dogs) Act 2008* to monitor compliance with the requirements of the *Animal Management (Cats and Dogs) Act 2008,* more specifically the requirement to register dogs.

The properties to be included in the Systematic Inspection Program are potentially all properties in the South Burnett Area where current records indicate that dog registration fees have not been paid.

The Systematic Inspection Program will be conducted between the hours of 8.00am and 5.00pm Monday to Friday, commencing on Monday 4 May 2026 and concluding on Tuesday 14 July 2026.

### FINANCIAL AND RESOURCE IMPLICATIONS

Outstanding animal registrations at the end of March equated to $184,383.94.

### LINK TO CORPORATE/OPERATIONAL PLAN

OPFL/27 Promote responsible pet ownership through delivery of systematic inspection program.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Reminder notices and text messages have been sent out owners with overdue amounts.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

Under the *Animal Management (Cats and Dogs) Act 2008*, owners must register all dogs in the relevant local government area, failure to do so and pay the applicable fee, may result in a penalty (fine) being issues to the dog owner.

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

Council has the ability to undertake these house-to-house inspections in order to ascertain compliance with the legislation. The *Animal Management (Cats and Dogs) Act 2008* provides the necessary head of power to carry out the registration checking activities.

### ASSET MANAGEMENT IMPLICATIONS

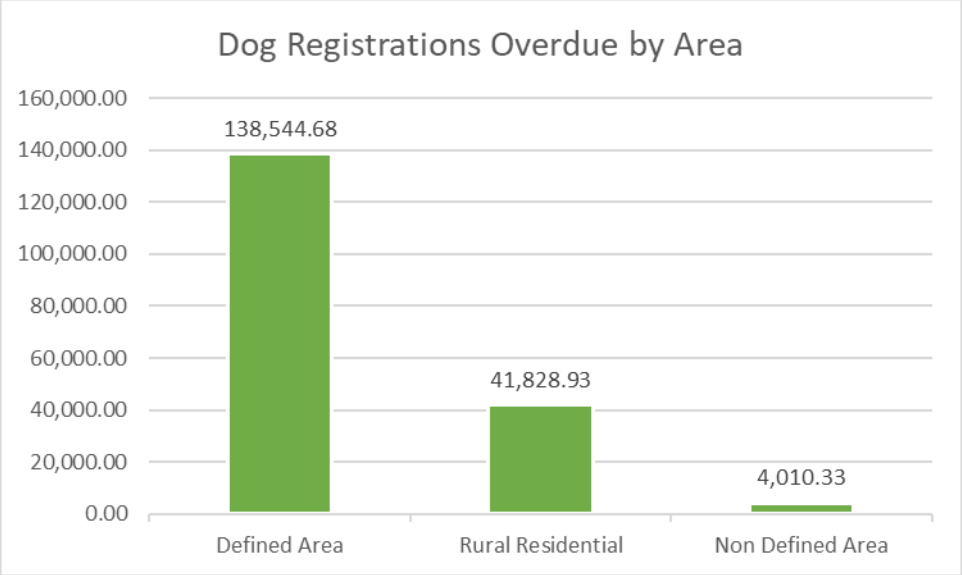
NA

### REPORT

At the end of March 2026, there were 1,841 dogs (3,659 charges) that had outstanding registrations and these registrations that are outstanding span over several years for some animals.

| Year | Charges | Amount |
|---|---|---|
| **2022-2023** | 3 | $600.00 |
| **2023-2024** | 710 | $24,175.00 |
| **2024-2025** | 1117 | $61,980.76 |
| **2025-2026** | 1829 | $97,628.18 |
| **Total** | **3659** | **$184,383.94** |

The below illustrates that approximately 75% of outstanding registrations are for animals in the defined residential areas.




**Outstanding Collection Process to Date**

- October 2025 – Outstanding registrations were identified for 2023/24, 2024/25 and the current period of 2025/26
- 28 October 2025 – Dog Renewals issued
- 9 December 2025 – Dog Renewals due
- 4 February 2026 – Overdue reminders issued

**Next Steps**

- The team will look at the current data, cleanse where required and identify a full list of properties to be inspected that have outstanding dog registration fees.
- Properties will then be divided up between the compliance team depending on location and workload of individual officers.
- Properties identified with outstanding animal registrations will be visited by a Compliance Officer in person and issued a caution notice (if current animal owner can be identified) where they will have 14 days to advise in writing if they still currently have the dog in their possession or pay the outstanding dog registrations.
- Failure to update details or pay outstanding fees will result in a fine to be issued.

Or

- The team will look at the current data, cleanse where required and identify a full list of properties to be inspected that have outstanding dog registration fees.

- Properties identified with outstanding animal registrations will be issued a caution notice (if current animal owner can be identified) where they will have 14 days to advise in writing if they still currently have the dog in their possession or pay the outstanding dog registrations.
- Failure to update details or pay outstanding fees will result in a fine to be issued.

**ATTACHMENTS**

**Nil**

## 13.3 REVIEW OF REGIONAL ARTS DEVELOPMENT FUND GUIDELINES

**File Number:** **15-04-2026**

**Author:** **Manager Customer Solutions**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Review of the South Burnett Regional Council Regional Arts Development Fund Guidelines.

### SUMMARY

South Burnett Regional Council (Council) reviewed the existing guidelines to provide clarity for grant applicants in making grant funding submissions for RADF.

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### OFFICER'S RECOMMENDATION

That the South Burnett Regional Council approve as presented, the Regional Arts Development Fund Guidelines.

### FINANCIAL AND RESOURCE IMPLICATIONS

Regional Arts Development Funding is provided to Council through Arts Queensland.

### LINK TO CORPORATE/OPERATIONAL PLAN

EC4 Develop and implement a regionally themed Arts, Culture and Heritage Strategic Plan incorporating all of our communities.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Arts, Culture and Heritage Advisory Committee has reviewed the draft guidelines and provided comments. They have been engaged during the process of consolidating old guidelines documents to provide a clearer document for applicants.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

N/A

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

South Burnett Regional Council Arts, Culture and Heritage Advisory Committee Policy – Statutory045.

### ASSET MANAGEMENT IMPLICATIONS

N/A

### REPORT

With the adoption of the South Burnett Regional Council Policy Governance Framework – Strategic006 by Council, all draft policies and associated procedures that are under review, are to be presented to the Senior Leadership Team meeting for final review of draft documents prior to recommending consideration by Council (Statutory / Strategic) or the Chief Executive Officer (Administrative).

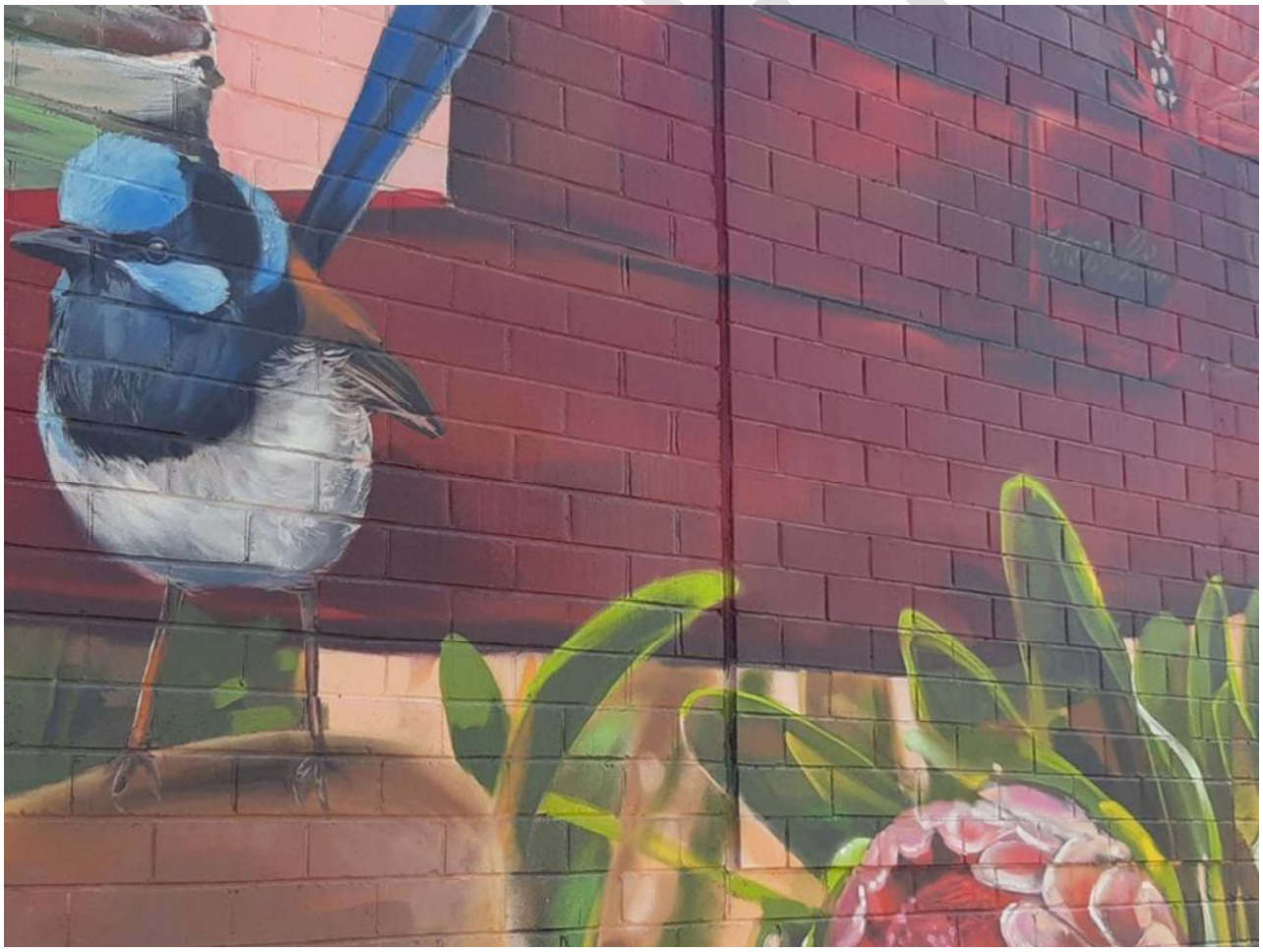
The Draft South Burnett Regional Council Community Grants Program Regional Arts Development Fund Guidelines has been reviewed by Community and Lifestyle and Corporate, Governance & Strategy, provided to the Arts Culture and Heritage Advisory Committee for comment.

**ATTACHMENTS**

**1. Draft Regional Arts Development Fund Guidelines**

SOUTH BURNETT
REGIONAL COUNCIL

# REGIONAL ARTS DEVELOPMENT FUND GUIDELINES



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**PRIVACY STATEMENT**

*Any application for grant funding to South Burnett Regional Council results in Council collecting the applicant's information in order to assess the application for eligibility, to establish a digital presence of the applicant's information in Council's business operations for the purposes of providing approved grant funding and may be accessed to explore promotional activities. Your information will not be given to any other person or agency unless you have given express permission, or Council is required to by law The applicant's information is handled in accordance with the Queensland Information Privacy Act 2009. For further information about Council's Privacy Statement please refer to Council's website.*

***SBRC acknowledges and respects the Wakka Wakka and Auburn Hawkwood people, the traditional owners of this land that we live, work and play and respect their cultures, their ancestors and their elders past, present and future generations.***

## ABOUT RADF

The Regional Arts Development Fund (RADF) is a grant funding program delivered as a partnership between the Queensland Government through Arts Queensland, and South Burnett Regional Council (Council).

RADF promotes the role and value of arts, culture and heritage as key drivers of diverse and inclusive communities and strong regions. It invests in local arts and cultural priorities, as determined by the local community.

RADF is a flexible fund, enabling Council to tailor programs while furthering Arts Queensland's vision. It supports arts and cultural activities that provide value for the region's communities by:

- encouraging safe and inclusive communities;
- building regions, supporting disadvantaged Queenslanders
- stimulating economic growth
- Fostering innovation, increasing workforce participation and conserving heritage.

**COUNCIL'S RADF OFFICER**

Council has a dedicated officer for members of the community to discuss their creative ideas and RADF applications.

Contact details:

RADF Liaison Officer
Phone: 07 4189 9100
Email: grantsadmin@SBRC.qld.gov.au



### PROGRAM OBJECTIVES

- **Local delivery and participation in the arts**

  To support local creatives to deliver cultural activities within the South Burnett region and encourage participation by the community.

- **Technical and professional skills development**

  Grow employment and capacity building opportunities for artists in regional Queensland including facilitating access to affordable workshops and training, and subsidising the costs of visiting professional tutors to the region.

- **Improving access to the arts and culture**

  Increase access to arts and cultural experiences for the South Burnett community.

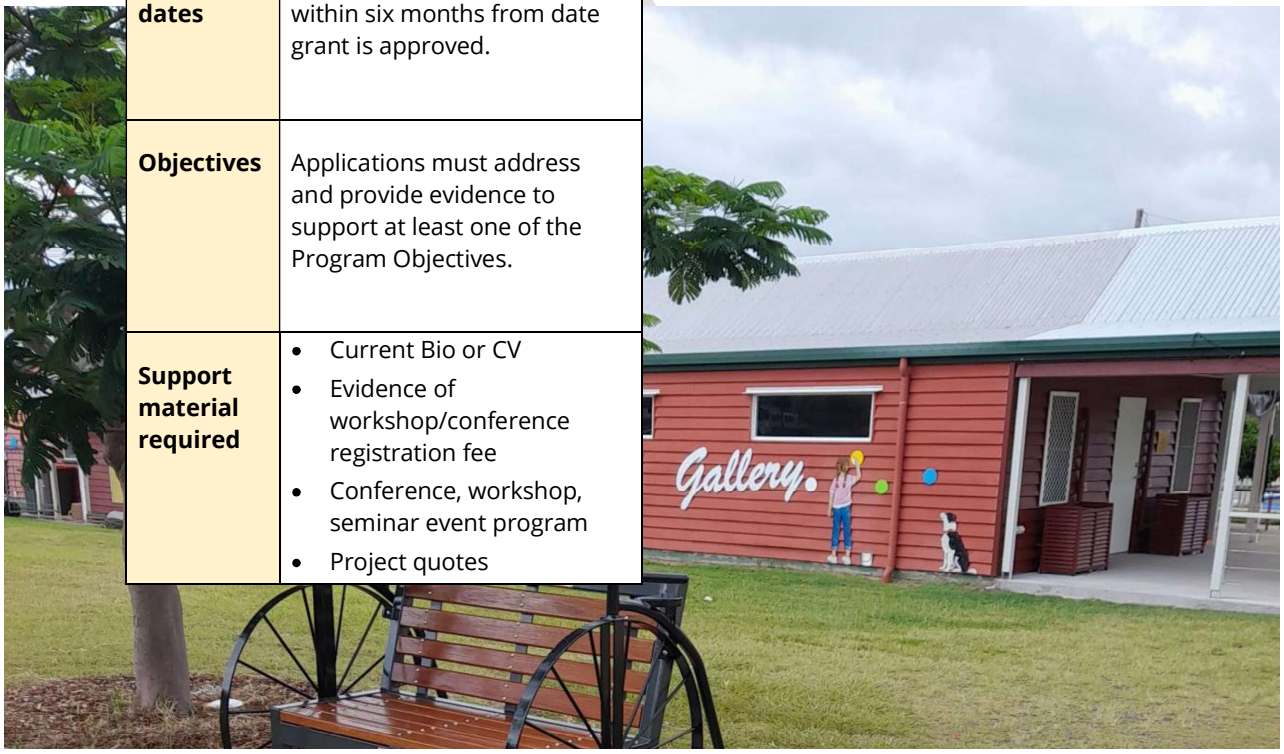
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## PROJECT FUNDING OPPORTUNITIES

**Category 1 – RADF Quick Response Funding**

This grant aims to provide quick response financial assistance to art and cultural professionals or groups to provide or undertake seminars or workshops, conferences, or arts events that cannot be funded by other means because of their nature or timing.

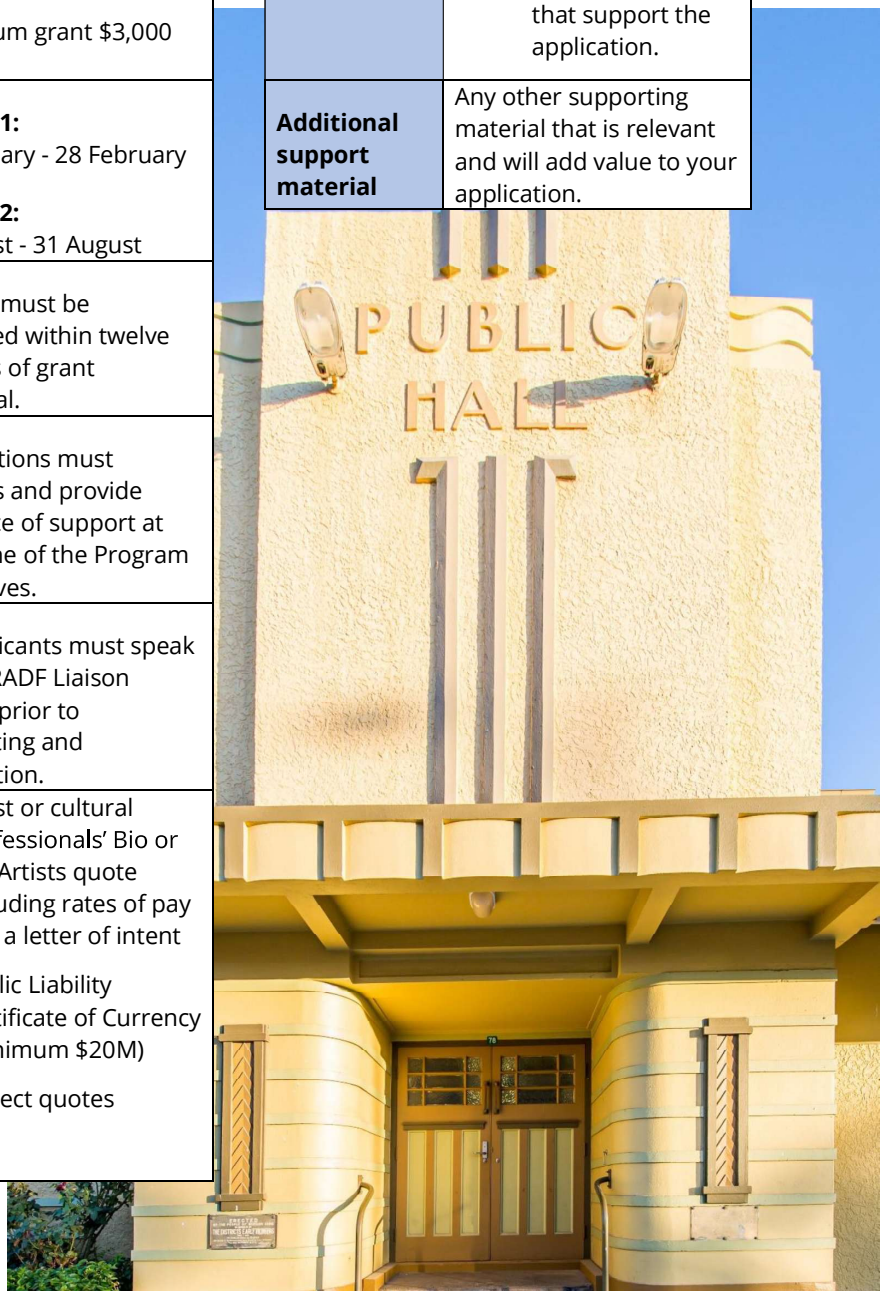
| | |
|---|---|
| **Grant Amount** | Maximum grant $1,000 |
| **Key Dates** | Applications are open all year or until allocated funds are exhausted. |
| **Project dates** | Project must be delivered within six months from date grant is approved. |
| **Objectives** | Applications must address and provide evidence to support at least one of the Program Objectives. |
| **Support material required** | • Current Bio or CV<br>• Evidence of workshop/conference registration fee<br>• Conference, workshop, seminar event program<br>• Project quotes |



**Category 2 – RADF Minor Funding**

This grant provides financial support for minor projects that promote the role and value of arts, culture and heritage as key drivers of diverse and inclusive communities and strong regions.

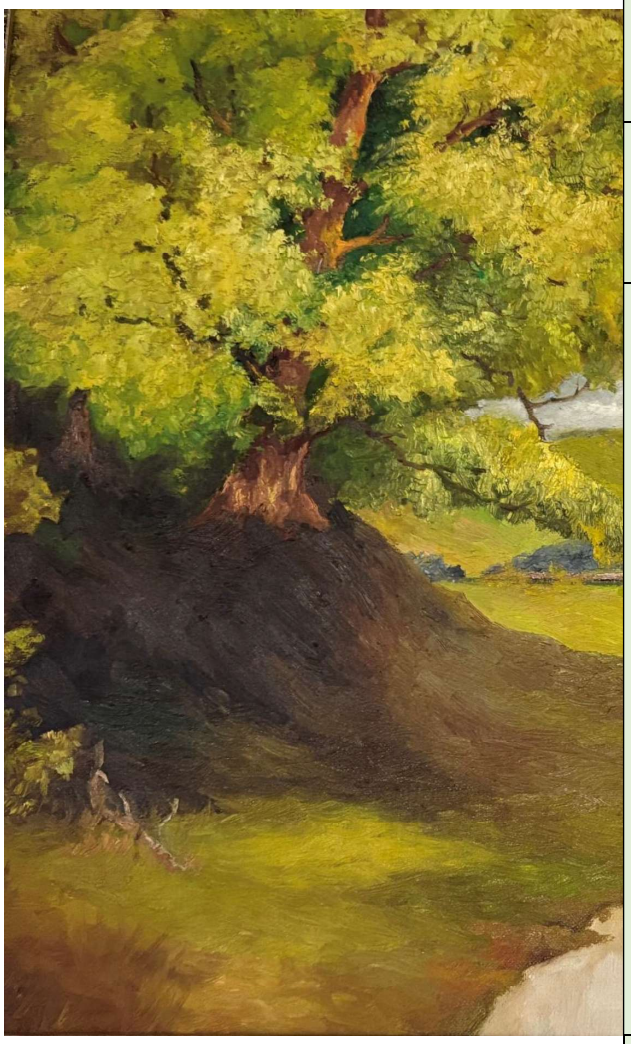
| | |
|---|---|
| **Grant Amount** | Maximum grant $3,000 |
| **Key Dates** | **Round 1:**<br>1 February - 28 February<br><br>**Round 2:**<br>1 August - 31 August |
| **Project dates** | Project must be delivered within twelve months of grant approval. |
| **Objectives** | Applications must address and provide evidence of support at least one of the Program Objectives. |
| **Mandatory requirement** | All applicants must speak to the RADF Liaison Officer prior to submitting and application. |
| **Supporting material required** | • Artist or cultural professionals' Bio or CV. Artists quote including rates of pay and a letter of intent<br>• Public Liability Certificate of Currency (minimum $20M)<br>• Project quotes |
| | • 2 Letters of support from:<br>- creative professionals and collaborators, arts and cultural organisations, and/or members of target groups that support the application. |
| **Additional support material** | Any other supporting material that is relevant and will add value to your application. |



**Category 3 – RADF Major Funding**

This grant provides financial support for major projects that promote the role and value of arts, culture and heritage as key drivers of diverse and inclusive communities and strong regions.

| | |
|---|---|
| **Grant Amount** | Maximum grant $15,000 |
| **Key Dates** | 1 May - 31 May |
| **Project dates** | Project must be delivered within twelve months from the date the grant is approved. |
| **Objectives** | Applications must address and provide evidence of support at least two of the Program Objectives.<br>The proposed project must support arts or culture across the entire South Burnett region. |
| **Mandatory Requirement** | All applicants must speak to the RADF Liaison Officer prior to submitting an application. |
| **Mandatory Supporting material** | • Public Liability Certificate of Currency (minimum $20M)<br>• Artist or cultural professionals' Bio or CV<br>• Project quotes<br>• Letters of confirmation from:<br>- artists/professionals of their involvement in the project<br>- venues, such as galleries, involved in the project.<br>• Letters of support from creative professionals and collaborators, arts and cultural organisations, and/or members of your project's specific target groups. |
| **Additional support material** | • Any other supporting material that is relevant and will add value to your application. |





**PROJECT FUNDING SUMMARY**

| Category | Applications Open | Applications Close | Grant Amount (GST inclusive) | Total Funding Pool | Project Delivery Timeframes |
|---|---|---|---|---|---|
| **RADF Quick Response** | open all year round | | Up to $1,000 | $10,000 | Within 6 months of approval |
| **RADF Minor Fund**<br>Round 1<br>Round 2 | <br>1 February<br>1 August | <br>28 February<br>31 August | Up to $3,000 | $30,000 | Within 12 months of approval |
| **RADF Major Fund** | 1 May | 31 May | Up to $15,000 | $15,000 | Within 12 months of approval |

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## WHO IS ELIGIBLE

### INDIVIDUALS

Professional artists, emerging artists, arts workers, cultural workers, or project coordinators who are:

- based in the South Burnett region,
- or if based outside the area, can demonstrate how the project will directly benefit arts and culture in the region;
- a permanent resident or Australian citizen;
- aged 18 years or above
- if under 18 years old, have a legal guardian co-sign the application confirming financial responsibility for the funding
- registered with an Australian Business Number (ABN), or auspiced* by an incorporated organisation or individual with an ABN.
- Emerging Artist refers to an artist who is at an early stage in their career. Emerging artists will have a demonstrated some professional work in their art form and will have created a modest body of artistic work.

### GROUPS

Any of the following groups that:

- are arts, culture and heritage organisations based in the region or if based outside of the area, must be able to demonstrate how the project will directly benefit arts, culture and heritage in the region;
- deliver arts, culture and heritage projects for the region aligning with Program Objectives;
- are incorporated organisations, or if not incorporated, are auspiced by an incorporated organisation or individual with an ABN.
- hold public liability insurance.

## WHO IS NOT ELIGIBLE

### INELIGIBLE APPLICANTS

- Government agencies or departments of state or federal governments;
- Educational, religious or medical organisations, where the application is for the organisation's core business;
- Groups or individuals that have not satisfactorily acquitted a previous RADF grant.



** Auspiced means with the support, patronage, protection, or guidance of another individual or organisation for an event or project.*

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## WHAT IS ELIGIBLE

### ELIGIBLE PROJECTS

Projects that are eligible are those that address the Program Objectives.

### ELIGIBLE EXPENSES

Funding will only cover costs related directly to delivering the project or activity itself, in accordance with the key objectives.

Eligible expenses includes, but is not limited to:

- Artist/creative/tutor professional fees (preparation and delivery)
- Artist/creative/tutor travel and accommodation expenses
- venue hire
- consumable materials – items, parts, or supplies used during the event or project.
- registration fees for professional artists, emerging artists and arts practitioners to attend schools, conferences and workshops that forms part of your own professional development
- engage art/creative workers paid less than the commercial rates
- school arts and culture activities that form part of the school curriculum. Unless this activity forms part of the broader general community

## WHAT IS NOT ELIGIBLE

### INELIGIBLE PROJECTS

Projects that are not eligible include those projects that:

- have already commenced
- require 100% funding, or the applicant proposed to contribute a negligible proportion of the total project funding
- projects which will generate profit for the applicant
- professional development for staff

### INELIGIBLE EXPENSES

Expenses not eligible for funding include:

- operational expenses
- prize money
- framing or postage/freight
- catering costs
- openings, launches and parties, even if they are part of an exhibition or community project.
- entertainment costs unless there is a developmental aspect included e.g. musicians performing at a community event run a series of developmental workshops for community members
- publishing costs
- accredited study, training or university courses
- course materials not covered by registration/participation fees
- the purchase of capital items, e.g. equipment, buildings or vehicles
- accommodation, meals and travel associated with attendance at schools, conferences or workshops that form part of your own professional development

*Please Note- These expenses can form part of your project, but alternative funding must be sought.

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## ASSESSMENT CRITERIA

Project applications will be assessed against the Program Objectives and the RADF Key Performance Outcomes (KPOs).

**The Program Objectives are:**

- Local delivery and participation in the arts
- Technical and professional skills development
- Improving access to the arts and culture

**RADF Key Performance Outcomes (KPOs).**

IMPACT

- invest in a diversity of local arts and cultural projects
- engage local communities in arts and cultural activities
- support local employment and strengthening of local arts sector

QUALITY

- support quality arts and cultural initiatives based on local priorities

REACH

- support engagement with new and diverse artists, audiences, and communities
- contribute to diversity and inclusive communities; growing strong regions; and providing training, education, and employment

VIABILITY

- build strong partnerships between arts and non-arts sectors
- leverage additional investment
- funding is used effectively and appropriately

**OTHER ASSESSMENT CONSIDERATIONS**

- Financial sustainability of the applicant
- Project management capability
- Social and community impact
- Proportion of project budget funding applied. Projects requiring 100% grant funding are ineligible, but Council reserves the right to not fund projects that offer a negligible contribution from the applicant.

**Other considerations**

- Distribution of grant funding across the region and availability of funds.
- Eligibility requirements to ensure the applicant, project, amount requested, and timeframes are eligible.
- Applicants may be fully, partially or not funded.
- Project, budget and support material, statistical information and photographic or video evidence of the event is required.
- Outcome reports require high resolution images and/or video. These may be used by Council and/or Arts Queensland on their websites or through other media channels.



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## HOW TO APPLY

**Step 1** work out your project

**Step 2** read these guidelines

**Step 3** call the liaison officer

**Step 4** gather your information

**Step 5** form your budget

**Step 6** log on to the portal and submit your application

**Step 1 – Project Outline**

Decide on your basic project outline and how you might implement it.

**Step 2 – Read the guidelines**

You must read the guidelines carefully to determine if their project meets the requirements for grant funding.

**Step 3 – Speak to RADF Liaison Officer**

You must discuss their funding requirements with Council's RADF Liaison Officer before applying.

**Step 4 – Gather the information**

Prepare and gather the information needed to complete your application. Please ensure you have all your required attachments, and they are labelled clearly.

**Step 5 – Form a budget**

Prepare a budget considering all expenses and sources of income.

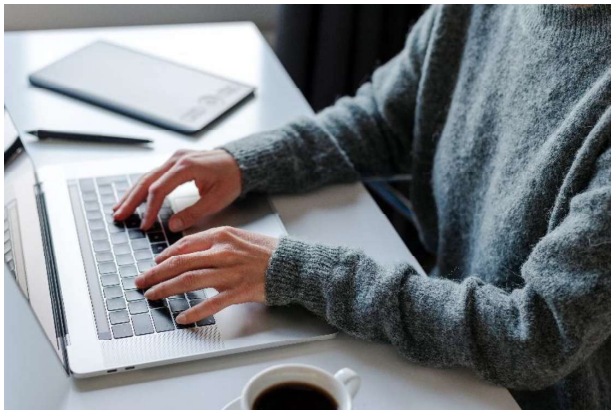
**Step 6 – Submit application**

You must lodge your application via Council's online grants platform, SmartyGrants. A link to the online application form and eligibility criteria can be found on Council's website https://sbrc.smartygrants.com.au/

The completed application, plus all supporting documents, must be lodged before midnight on the day of the advertised closing date.

*Please note*:

- no late, handwritten or incomplete applications will be accepted.
- the grant assessment and approval process can take up to two months from when the funding round closes, so this needs to be factored into your project planning.
- applicants will receive an automatic acknowledgement from Council upon submission of the application through the SmartyGrants online grants platform.



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# ASSESSMENT PROCESS

Applications are assessed against the assessment criteria by the SBRC Arts Culture and Heritage Advisory Committee (ACHAC).

All grant funding applications will be assessed for eligibility immediately after the application funding round closes and those deemed not eligible will be notified.

All eligible applications will be assessed within thirty (30) days after the funding round closing date (or date of submission for Quick Response Funding applications).

Applicants may be asked to provide additional information or support material for the project for the assessment process.

SBRC reserves the right to grant the full amount of funding applied for, or partial funding, with or without conditions.

### COUNCIL ENDORSEMENT

Once the assessment is complete, the ACHAC will make recommendations to Council for endorsement.

This process may take up to eight (8) weeks dependant on SBRC Council meeting dates.

### NOTIFICATION OF OUTCOME

Quick Response Funding applications are assessed within thirty (30) business days after the first business day of the application being received.

Minor and Major Funding applicants will be notified once Council has endorsed recommendations made by ACHAC. Applicants are advised by email of the outcome.

Unsuccessful applicants may be provided with feedback about their application from the SBRC RADF Liaison Officer if requested by the applicant.



## SUCCESSFUL APPLICATIONS

### PAYMENT OF FUNDING AGREEMENT

Successful applicants must enter into a Funding Agreement with Council within twenty (20) days of notification of outcome to receive funding.

If the applicant has an auspice arrangement, the Funding Agreement and payment will be made to the auspice incorporated organisation or individual.

### ACKNOWLEDGEMENT REQUIREMENTS

RADF funded activities must acknowledge the Queensland Government and Council in all promotional material and publications using the below acknowledgment text and logos. Copies will also be provided to you by Council.

SOUTH BURNETT REGIONAL COUNCIL

Queensland Government

*This project was funded by the Regional Arts Development Fund (RADF), a partnership between the South Burnett Regional Council and Queensland Government to support local arts and culture in regional Queensland.*

### REPORTING AND AQUITTAL

**Project Outcome Report**

Grant recipients must complete an online acquittal within six (6) weeks of the project being completed, unless an extension is provided in writing by Council.

The Project Outcome Report should include project outcomes and achievements, along with the acquittal of expenditure, and copies of relevant invoices and receipts.

The report must show that the grant was used for the purpose for which it was

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provided unless a change of project or variation was agreed to in writing. If the project has been completed under budget, or grant funding has been spent on ineligible items, unexpended funds will be requested to be returned.

## CASE STUDY OPPORTUNITY

Arts Queensland and Council select case studies each year to highlight successful grant recipients. Individuals or groups wishing to be involved in a case study may contact Council prior to project delivery.

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## FAQs

**Can RADF fund my entire project or do I need to make contribution?**

The RADF program provides financial assistance but is not intended to be relied upon as the sole source of funding. Applicants must demonstrate they have made an ample financial contribution to the project.

Council reserves the right to part fund a grant application. Funding may also be provided with conditions.

**What if I need to change my project?**

If for any reason the project is not able to proceed as approved, you must contact the RADF Liaison Officer immediately.

If an amendment is being proposed, this must be submitted in writing for approval and must be no more than a 12-month extension.

Cancelled projects are required to return all RADF funds to the Council.

**Goods and services tax and ABN**

Grant funding is paid exclusive of GST, regardless of the tax status of the applicant.

Applicants must have an Australian Business Number (ABN). If an application does not have an ABN, they can be auspiced by an individual or organisation that has a valid ABN.

**What is an Emerging Artist**

Refers to an artist who is at an early stage in their career. Emerging artists will have a demonstrated and recent track record of some professional work in their art form area and will have created a modest body of artistic work.

**What is an Established Artist?**

Refers to an artist who an established career, who has specialised training in the art form, who has created an extensive body of independent work, has garnered regional, state, national or international recognition from their peers as having reached an advanced level of achievement.

**Can I submit a grant application for my cultural or heritage project or event?**

Council supports applications that meet the Program Objectives whether they be art, musical, heritage or cultural pursuits.

All applications are assessed against the Key Performance Outcomes, so your project or event must meet all the requirements to be successful.

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## APPLICANT CHECKLIST

This is provided to check through your application.

| Item | checked |
|---|---|
| Read the Guidelines | |
| Contacted the SBRC RADF Liaison Officer | |
| Applicant details including ABN | |
| Public Liability Certificate of Currency (minimum $20million) | |
| Project description | |
| Does the project meet the objectives? | |
| Does the project meet the key performance outcomes? | |
| Project plan and milestones | |
| Project budget | |
| Project quotes | |
| A statement of professional experience or Bio/CV | |
| Letter of confirmation from artist/arts worker to deliver training | |
| Letter of confirmation from key venues, such as galleries, involved in the project where relevant | |
| Two letters of support - from creative professionals and collaborators, arts and cultural organisations, and/or members of your project's specific target groups | |

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## 13.4 COMMUNITY GRANTS ROUND 2 - 2025/2026 GRANT APPLICATIONS

**File Number:** **15.04.2026**

**Author:** **Executive Assistant Liveability**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Community Grants Round 2 – 2025/2026 grant applications.

### SUMMARY

Applications for the Community Grants Round 2 - 2025/2026 grant applications closed on 28 February 2026. Total funding allocation for 2025/26 for Community Grants is $65,000.

Twenty (20) applications were received, with submissions totalling $50,681.40. Applications were assessed by the assessment panel on Wednesday 11 March 2026 and recommendations for approval are provided below.

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### OFFICER'S RECOMMENDATION

That South Burnett Regional Council note the approved applications for the Community Grants Program Round 2 – 2025/26.

### FINANCIAL AND RESOURCE IMPLICATIONS

Total Funding for Community Grants Program – 2025/2026 is $65,000.00.

Grant approvals are within budget limitations.

### LINK TO CORPORATE/OPERATIONAL PLAN

ENHANCING LIVEABILITY AND LIFESTYLE

EC16 Partner with community to develop and promote events that have a positive impact on our region.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Applications were assessed by the Community Grants Program's assessment panel on 11 March 2026.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

N/A

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

Community Grants Program Policy – ID 2821840

Community Grants Program Agreement – Funding Agreement Form – ID3112168

### ASSET MANAGEMENT IMPLICATIONS

N/A

### REPORT

Applications for the Community Grants Program Round 2 – 2025/2026 grants closed on 28 February 2026 with total funding for 2025/2026 being $65,000.00.

Twenty (20) applications were assessed by the Community Grants Assessment Panel on 11 March 2026. Decisions were made as per the Community Grants Program Policy with a total of fifteen (15) funding applications having funding approved, for a total grant allocation of $18,958.45.

The below table provides information on the applications, the decision made on the application and the amount of funding that was approved for each application.

| **Organisation** | **Event** | **Amount Requested** | **Amount Approved** |
|---|---|---|---|
| Blackbutt RSL Sub Branch | Kellys Kitchen refurbishment | $2,400.00 | $1,690.00 |
| Blackbutt Singers | 35th Anniversary Gala Celebration | $2,360.00 | $1,760.00 |
| Bunya Mountains Community Assoc Inc | Discover the Bunya Nut a guide to cooking & enjoying it | $2,402.00 | $900.00 |
| Cancer Council Qld | South Burnett Relay for Life | $3,000.00 | $2,000.00 |
| Cornerstone Christian Ministries Inc | Highway Kids Swing & Play | $2,000.00 | Disallowed |
| Dingo Creek Endurance & Community Assoc Inc | Dingo Creek Bug Bash | $3,000.00 | $1,000.00 |
| Kingaroy Cricket & Sports Club | Removal of Trees | $1,925.00 | $1,925.00 |
| Kingaroy Bowls Club Inc | Laptop, Printer, Mouse & Bag | $2,904.32 | $1,084.45 |
| Kingaroy Senior Citizens Club Inc | Laptop, Mouse, Bag, Norton & set up costs | $2,583.95 | $1,000.00 |
| Kumbia & District Golf Club | Double Door Drinks Fridge | $3,000.00 | $1,500.00 |
| Kumbia & District Historical Society Inc | Tree Pruning | $2,722.50 | $500.00 |
| Mondure Public Hall Inc | Amplifier for sound system | $1,000.00 | $899.00 |
| Nanango Bowls Club | Laptop | $2,913.63 | $1,000.00 |
| Nanango Kennel Club | Repair Field Lights | $3,000.00 | Disallowed |
| Nanango RSL Sub-Branch Inc | Nanango State High School Dining Experience | $3,000.00 | Disallowed |

| | | | |
|---|---|---|---|
| National Council of Women Qld Inc | NCWQ Bursary Sponsorship | $1,200.00 | Disallowed |
| Qld Dairy & Heritage Museum Murgon Inc | Our Reading Room | $2,000.00 | Disallowed |
| Suncoast Spinners Wheelchair Basketball Inc | South Burnett Wheelchair Basketball apparel | $3,000.00 | $1,000.00 |
| Tingoora Primary P&C Association | Annual School Camp | $3,000.00 | $1,200.00 |
| Wondai A.P.& I. Show Society | 2026 Wondai Show | $3,000.00 | $1,500.00 |
| | **TOTAL** | **$50,681.40** | **$18,958.45** |

**ATTACHMENTS**

**Nil**

## 13.5 ADOPTION OF RADF ROUND 2 2025 GRANT APPLICATIONS

**File Number:** **15-10-2025**

**Author:** **Tourism and Culture Officer**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Update on RADF Round 2, February 2026 grant applications.

### SUMMARY

Applications for RADF Round 2, 2025/2026 grant applications closed on 28 February 2026. Total funding allocation for 2025/2026 RADF Minor Round Grants is $30,000.00.

Applications were assessed by the RADF Committee on 26 March 2026 and recommendations for approval for a total grant allocation of $13,394 are provided below for Councils information.

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### OFFICER'S RECOMMENDATION

That South Burnett Regional Council endorse the minutes of the Arts, Culture and Heritage Advisory Committee meeting of 26 March and approve RADF grant funding in accordance with the recommendations made.

### FINANCIAL AND RESOURCE IMPLICATIONS

Total funding for RADF Minor Round, 2025 /2026 is $30,000.00.

Grant allocation is within budget limitations.

### LINK TO CORPORATE/OPERATIONAL PLAN

ENHANCING LIVEABILITY AND LIFESTYLE

EC4 Foster and encourage vibrant arts, culture and heritage growth in our communities.

EC16 Partner with community to develop and promote events that have a positive impact on our region

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Applications were assessed by the RADF Committee on 26 March 2026.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

N/A

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

Community Grants Program Policy – ID Strategic005

Regional Art Development Fund Guidelines – ID 3047561

Regional Arts Development Fund - Funding Agreement – ID 3212555

### ASSET MANAGEMENT IMPLICATIONS

N/A

## REPORT

Applications for RADF Round 2, 2025/26 grant applications closed on February 28, 2026. Five (5) applications were received and three (3) were approved by the RADF Committee at the 26 March 2026 Committee meeting for a total grant allocation of $13,394. Recommendations made by the Committee are provided (see meeting minutes attached) for Council's adoption.

## ATTACHMENTS

**1. RADF Committee Meeting Minutes 26 March 2026**

# ACH Committee
# Meeting Minutes

| | |
|---|---|
| **Date:** | Thursday, 26th March 2026 |
| **Time:** | 9am – 10.30am |
| **Location:** | Warren Truss Chambers Kingaroy |
| **Invited:** | Cr. Danita Potter — Chair, SBRC<br>Cr. Jane Erkens — Deputy Chair, SBRC<br>Robyn Dower — South Burnett Arts Inc.<br>Craig Reiger — South Burnett Musical Comedy Society<br>Pam Kerr — Kingaroy Heritage Museum<br>Glenn Hatchett — Community Member<br>Andrew Maddern — South Burnett Community Orchestra<br>Elaine Madill — Wondai Art Gallery<br>Rebecca Bayntun — Manager Customer Solutions<br>Georgia Bennett — Tourism and Culture Officer |

| | |
|---|---|
| **1** | **Opening** |
| **1.2** | **Apologies**<br>Cr Erkens<br>Elaine Madill<br>Andrew Maddern<br>Craig Reiger<br>Tonita Penny |
| **2** | **Review of RADF Grant Applications** |
| **2.1** | There were no QR Applications |
| **2.2** | **Discussion of RADF Round 2, 2025-2026 Applications**<br>Overview: Council initially received 6 Round Two applications. Total funding amount applied for $15,661. However, RADF application RADF04R2 (Bunya Mountains Community Association) withdrew their application so that they could focus on submitting an application in the Major Round of RADF funding. The funding for the 5 applications total is **$13,394.** |
| **2.3** | **Application No:** **RADF02R2**<br>**Applicant:** Fran Van Vegchel / Jumping Ant Arts<br>**Project:** Expressive Drawing Workshop<br>**Funding Requested:** $966<br>**Total project cost:** $1699<br>**Overview of project:** Expressive drawing techniques workshop with artist Leonie Chinn. Participants will be introduced to gestural, contour and tonal drawing techniques.<br><br>**Discussion:** application was well received and approved by all present**.**<br><br>**Recommendation:** **Approved**<br><br>**Conditions of Funding:** **Nil** |

SOUTH BURNETT REGIONAL COUNCIL

| | |
|---|---|
| 2.4 | **Application No.:** **RADF03R2**<br>**Applicant:** Lyn Kenny (Auspiced by Kingaroy Art Gallery)<br>**Project:** Art Excursion with Denise Burkitt<br>**Funding Requested:** $3000<br>**Total project cost:** $5835<br>**Overview of project:** Three One Day workshops<br>1) Hand paint and print a design on fabric<br>2) Learn to hand paint voluminous vibrant floral designs on fabric<br>3) Beautiful abstract / contemporary landscapes on fabric<br><br>**Discussion:** Lyn did contact the RADF liaison officer as per the RADF guidelines. Question asked by the Committee was how much the participants would be paying to attend the workshop? The project expenditure table in the application shows $2400 under participant costs.<br><br>**Clarification on this provided by Lyn** - The participant cost to attend is $80/person per workshop (Total $240( This covers cost of fabric (2.5m/person per workshop) plus paints, plus paint kit – paint brush set, smooth tr palette and a sponge Roller.<br><br>**Recommendation:** **Approved**<br><br>**Conditions of Funding:** Nil |
| 2.5 | **Application No.:** **RADF04R2**<br>**Applicant:** Carol Weekes<br>**Project:** Gathered Under the Bunya Tree: Community Oral History Project<br>**Funding Requested:** $3000<br>**Total project cost:** $3500<br><br>**Application Withdrawn** |
| 2.6 | **Application No:** **RADF05R2**<br>**Applicant:** Lorraine Syratt / Creative Country Association<br>**Project:** Anzac Memories: We Will Remember Them<br>**Funding Requested:** $3000<br>**Total project cost:** $4284.20<br>**Overview of project:** Anzac portraits workshop facilitated by Susie Capewell. Final pieces to be permanently on display in 55 MY gallery.<br><br>**Discussion:** Application was confusing and lacked clarity on what the project was. Questions raised over the use funding money to pay for framing (this is an ineligible expense) and the purchase of materials (10 easels) to l retained at 55MY after the project. The idea of "Anzac Memories" was well received but the application was lacki in substance and detail. There was also discussion about the fact that there was a cost to enter 55 MY in order see the portraits. Georgia to provide feedback to Lorraine and will assist her in rewriting and re-submitting tl application in Round 1 RADF if required.<br><br>**Recommendation:** **Declined** |
| 2.7 | **Application No.:** **RADF08R2**<br>**Applicant:** Carmen Peddle / Kingaroy State School P&C<br>**Project:** Two Wheel Time Machine<br>**Funding Requested:** $3000<br>**Total project cost:** $3000.50<br>**Overview of project:** School wants to host a Musica Viva 2026 regional touring performance. Two-wheel time machine is a show that helps students discover that creating music is like riding a bike. Includes fre |

| | |
|---|---|
| | professional development webinar and resources<br><br>**Discussion:** Committee liked the idea but felt that it should be open to other teachers, students not just tl Kingaroy State School. 100% funding of applications is ineligible and the 50c contribution by the P&C was seen negligible. What is the end product of this project? The applicant did not contact the RADF liaison officer prior submitting the application (RADF guidelines stipulate contact to discuss before submitting).<br><br>**Recommendation:** **Declined** |
| 2.8 | **Application No.:** **RADF1102**<br>**Applicant:** Ruth Wagner (Auspiced by Kingaroy Art Gallery)<br>**Project:** Fabric2Dye4<br>**Funding Requested:** $2695<br>**Total project cost:** $3895<br>**Overview of project:** Lyn Kenny will hold a workshop on fabric dyeing using procion MX dyes. Participants will learn to mix dyes and associated solutions to create 16 coordinated pieces of coloured fabric. They will also learn how to use and embellish the dyed fabric by using thermofax screens to print on fabric, stencils, stamps and other techniques.<br><br>**Discussion:** Question about what happens to materials purchased for workshops? Materials ar consumables. No quote provided by artist for the amount of $1800 (Lyn Kenny). Also questioned what tl participant costs were ($1200).<br><br>**Recommendation:** **Approved**<br><br>**Conditions of Funding:** More information to be provided by Ruth, including artist quote and a breakdown ( *"Participant Payments - Earned Income / Sales - $1,200.00 workshop materials-fabric"*.<br><br>**Quote has been provided and participant cost breakdown is:**<br>8m fabric @ $15.00/m = $120<br>No of participants = 10<br>Total cost of Fabric / Participants Payments = $1200 |
| 2.9 | **Outcome Reports Received**<br>None. |
| 3 | **Other Business** |
| | • Smarty Grants and guidelines review to be finalized.<br>• Council Community Initiative - RADF funded. Ideas – sculpture, chain saw sculptures, murals, rail trail art.<br>• Panel wish to see all outcome reports submitted<br>• June – new committee. Conversation about keeping some of the existing committee members on. |
| | **Meeting Closed** |

SOUTH BURNETT REGIONAL COUNCIL

## 13.6 SBRC LEASE OF THE SHED BEHIND KINGAROY CHAMBER OF COMMERCE & INDUSTRY INC (KCCI) LEASED BUILDING AT 195 KINGAROY STREET, KINGAROY (DESCRIBED AS LOT 1 ON RP133329)

**File Number:** **LIC26/005.01**

**Author:** **Manager Customer Solutions**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Request from the Taabinga Lions to enter into a Lease for part of Lot 1 on RP133329 known as the shed located behind the Kingaroy Chamber of Commerce & Industry Inc (KCCI) leased office building.

### SUMMARY

Taabinga Lions approached Council to find a suitable area to lease and store some of their equipment in a location accessible by all members.

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### OFFICER'S RECOMMENDATION

That South Burnett Regional Council:

1. In accordance with *Local Government Regulation 2012* section 236(1)(b)(ii), disposes of a valuable non-current asset other than by way of tender or auction, to a community organisation, by entering into a lease with The Lions Club of Taabinga Inc for the shed located behind the Kingaroy Chamber of Commerce & Industry Inc (KCCI) leased office building, being part of Lot 1 on RP133329, for a term of ten (10) years with no options to renew.
2. Delegates to the Chief Executive Officer the power to negotiate, finalise and execute the lease on terms and conditions the Chief Executive Officer reasonably considers are satisfactory to Council.

### FINANCIAL AND RESOURCE IMPLICATIONS

The shed located behind KCCI leased office building is currently being used as storage for Council and KCCI. The shed doesn't form part of the lease with KCCI.

### LINK TO CORPORATE/OPERATIONAL PLAN

IN8: Investigate options for leasing opportunities to not-for-profit groups and organisations.

EC6: Appropriately support and encourage volunteers, advisory groups and community organisations to value add to Council's services and infrastructure.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Council received a request from the Taabinga Lions to find a suitable space for them to store some of the club's equipment and enter into a Lease.

Members of Taabinga Lions visited the site with a Council officer to look through the shed to determine its suitability. Subsequent to the visit, the members contacted Council requesting that Council proceed to making the recommendation to enter into a Lease.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

Offer of a lease is in accordance with s.236 of the *Local Government Regulation 2012*.

Council has the authority to decide this matter under the *Local Government Act 2009*.

## POLICY/LOCAL LAW DELEGATION IMPLICATIONS

Offer of a lease is in accordance with Council's Asset Disposal Policy.

## ASSET MANAGEMENT IMPLICATIONS

The Lease will require Taabinga Lions to maintain the building by keeping clean, tidy and free of pests. Council will retain the responsibility to undertake any capital works to the building.

## REPORT

**Property Details:**

| | |
|---|---|
| RPD | Lot 1 on RP133329 |
| Street Address | 195 Kingaroy Street, Kingaroy |
| Tenure | Estate in Fee Simple |
| Owner | South Burnett Regional Council |
| Type of agreement | Lease |
| Purpose | To lease the premises for the purpose of storing Taabinga Lions equipment. |
| Rental | Initially, $75.00 (plus GST) per annum reviewed annually as per fees and charges |
| Term of Lease | 10 years |
| Option | Nil |

*Figure 1 - Shed to be used by Taabinga Lions (refer to red line highlighting shed) – Image accessed from Street View (18 March 2026)*




## ATTACHMENTS

**Nil**

## 13.7 LIST OF CORRESPONDENCE PENDING COMPLETION OF ASSESSMENT REPORT

**File Number:** **15-04-2026**

**Author:** **Manager Planning & Development**

**Authoriser:** **Chief Executive Officer**

### PRECIS

This report provides a list of all planning and development applications currently under assessment and pending completion as of 7 April 2026.

### SUMMARY

This report comprises a listing of forty-four (44) planning and development applications currently under assessment and pending completion of assessment as of 7 April 2026. The information in this report is correct as of 7 April 2026. However, the status of the applications listed may have changed since this date. Additionally, the number of applications listed may have changed with any new applications lodged with Council and any of the listed applications being determined under delegation.

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### OFFICER'S RECOMMENDATION

That the List of Correspondence pending completion of Assessment Report as at 7 April 2026 be received and noted.

### REPORT

This report comprises a listing of forty-four (44) planning and development applications currently under assessment and pending completion of assessment as of 7 April 2026. The information in this report is correct as of 7 April 2026. However, the status of the applications listed may have changed since this date. Additionally, the number of applications listed may have changed with any new applications lodged with Council and any of the listed applications being determined under delegation.

### ATTACHMENTS

**1. List of Correspondence Pending Completion** ⇩

| Application No. | Description and Location | Properly Made Date | Stage | Process & Due Date | Responsible Stakeholder |
|---|---|---|---|---|---|
| **Division 1** | | | | | |
| MCU25/0017 | Material Change of Use - Extension to Existing Service Station at 17 Henry Street NANANGO | 07/08/2025 | Referral | Referral Agency response due 10/04/2026 | Referral Agency |
| MCU26/0002 & OPW26/0002 | Combined Application for a Material Change of Use - Transport Depot and Bulk Landscape Supplies & Operational Works - Earthworks at 60 King Street NANANGO | 16/02/2026 | Information Request | Information Request Response Due 05/06/2026 | Applicant |
| MCU26/0004 | Material Change of Use - High Impact Industry (Bio-fertiliser Facility) at Burnett Highway GLAN DEVON | 25/02/2026 | Referral | Respond to SARA's Information Request 01/07/2026 | Applicant |
| MCU26/0005 | Material Change of Use - Dual Occupancy at 15 Player Street NANANGO | 26/02/2026 | Decision | Decision Due 29/04/2026 | Council |
| RAL26/0005 | Reconfiguring a Lot - Subdivision (1 Lot into 2 Lots) at 80 Nanango Brooklands Road NANANGO | 27/01/2026 | Decision | Decision Due 09/04/2026 | Council |
| RAL26/0008 | Reconfiguring a Lot – Boundary Realignment (2 Lots into 2 Lots) at Lanigan Road & 211 Lanigan Road GLAN DEVON | 12/03/2026 | Decision | Decision Due 14/05/2026 | Council |
| RAL26/0013 | Reconfiguring a Lot – Subdivision (1 Lot into 2 Lots) at 90 Heights Road GLAN DEVON | 25/03/2026 | Information Request | Information Request Due 20/04/2026 | Council |
| RAL26/0014 | Reconfiguring a Lot – Subdivision (1 Lot into 2 Lots) at 79 Fitzroy Street NANANGO | Awaiting Payment | Confirmation | Confirmation Notice Due 16/04/2026 | Applicant |
| **Division 2** | | | | | |
| MCU25/0032 | Material Change of Use - High Impact Industry (Sawmill) at 256 & 258 Old Esk Road TAROMEO | 22/09/2025 | Decision | Decision Due 28/04/2026 | Council |
| MCU26/0007 & RAL26/0007 | Combined Application for Preliminary Approval for Variation Request and Development Permit for Reconfiguring a Lot – Subdivision (1 Lot into 8 Lots) over 2 stages and access easement at 46 Steven Street BENARKIN | 13/03/2026 | Information Request | Information Request Due 08/04/2026 | Council |
| MCU26/0010 | Material Change of Use – Warehouse at 11 Knowles Street NANANGO | 19/03/2026 | Information Request | Information Request Due 17/04/2026 | Council |

| | | | | | |
|---|---|---|---|---|---|
| RAL25/0049 | Reconfiguring a Lot - Subdivision (1 Lot into 2 Lots) at 12804 D'Aguilar Highway SOUTH NANANGO | 15/12/2025 | Decision | Decision Due 15/04/2026 | Council |
| RAL25/0050 | Reconfiguring a Lot - Long Term Lease and Access Easement at 1365 Ellesmere Road ELLESMERE | 14/01/2026 | Decision | Decision Due 29/04/2026 | Council |
| RAL26/0004 | Reconfiguring a Lot - Boundary Realignment (2 Lots into 2 Lots) at Hart Street & 2 Hart Street BLACKBUTT | 22/01/2026 | Decision | Decision Due 10/04/2026 | Council |
| RAL26/0009 | Reconfiguring a Lot – Subdivision (1 Lot into 13 Lots) at 241 Izzards Road SOUTH NANANGO | 11/03/2026 | Decision | Decision Due 10/04/2026 | Council |
| RAL26/0012 | Reconfiguring a Lot – Subdivision (1 Lot into 2 Lots) at 192 Franks Road TAROMEO | 23/03/2026 | Information Request | Information Request Due 15/04/2026 | Council |
| OPW26/0004 | Operational Works - Road Works at Ellesmere Road ELLESMERE | Not Properly Made | Confirmation | Action Notice Due 16/04/2026 | Applicant |
| OPW26/0005 | Operational Works – Road Works, Stormwater, Earthworks, Drainage Work and Water Infrastructure McGinley Road NANANGO | 23/03/2026 | Information Request | Information Request Due 07/04/2026 | Council |
| OPW26/0006 | Operational Works - Road Works, Drainage Works, Stormwater and Earthworks at 162 Bowman Road BLACKBUTT NORTH | 12/03/2026 | Decision | Decision Due 07/05/2026 | Council |
| **Division 3** | | | | | |
| MCU25/0026 | Material Change of Use - Motel Extension (24 to 48 Rooms) at 27-31 Pound Street KINGAROY | 28/08/2025 | Lapsed | Application to be revived by 22/04/2026 | Applicant |
| MCU25/0041, RAL25/0048 & OPW25/0020 | Combined Application for a Material Change of Use - Shopping Centre, Reconfiguring a Lot - Subdivision (1 Lot into 2 Lots) and Operational Works - Earthworks at 1 Pound Street KINGAROY | 25/11/2025 | Decision | Decision Due 01/05/2026 | Council |
| MCU25/0043 | Material Change of Use - Multiple Dwelling Units (14) at 298 Haly Street KINGAROY | 03/12/2025 | Information Request | Information Request Response Due 23/04/2026 | Applicant |
| MCU25/0044 & RAL25/0051 | Combined Application for a Preliminary Approval for Variation Request for Material Change of Use (Dwelling Houses, Multiple Dwellings, Health Care Services, Shop, Agricultural Supplies Store, Warehouse, Community Use, Food & Drink Outlet, Child Care Centre, Service Industry, Educational Establishment, Aquaculture, Cropping, | 22/12/2025 | Information Request | Information Request Response Due 30/04/2026 | Applicant |

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|---|---|---|---|---|---|
| | Intensive Horticulture, Renewable Energy Facility and Undefined Land Uses – Community Housing, Specialist Disability Accommodation (SDA), Non-resident Workforce Accommodation, Food and Beverage Processing and Agri-technology & Innovation; Preliminary Approval for a Variation Request for Reconfiguring a Lot; and Development Permit for Reconfiguring a Lot – Subdivision (1 Lot into 70 Lots plus Common Property and Balance Land) at Kelvyn Street and Buchanan Street KINGAROY | | | | |
| MCU26/0001 & RAL26/0001 | Combined Application for a Material Change of Use - Workforce Accommodation and Reconfiguring a Lot - Lease Exceeding 10 years at Warren Truss Drive KINGAROY | 06/01/2026 | Information Request | Information Request Response Due 23/04/2026 | Applicant |
| MCU26/0003 | Material Change of Use - Dual Occupancy at 37 Gladys Street KINGAROY | 17/02/2026 | Decision | Decision Due 16/04/2026 | Council |
| MCU26/0009 | Material Change of Use – Multiple Dwellings (5 units) at 58 Kingaroy Street KINGAROY | 23/03/2026 | Information Request | Information Request Due 17/04/2026 | Council |
| MCU20/0011.01 | Minor Change Request for Material Change of Use – Multiple Dwellings (44 Units) at 1-5 Banksia Drive KINGAROY | Not Properly Made | Waiting Payment | Incomplete Lodgement Notice Issued, awaiting payment to proceed with application. | Applicant |
| RAL26/0011 | Reconfiguring a Lot – Subdivision (1 Lot into 2 Lots) at 204 Harris Road KINGAROY | 19/03/2026 | Information Request | Information Request Due 15/04/2026 | Council |
| OPW25/0022 | Operational Works associated with MCU24/0002 & RAL24/0001 at 22-30 Bridgett Carrol Road KINGAROY | 11/12/2025 | Information request | Information Request Response Due 08/04/2026 | Applicant |
| **Division 4** | | | | | |
| MCU21/0019 | Other Change to Existing Approval – Material Change of Use (Master Planned Community and Development Permit for Reconfiguration of a lot (1 lot into 6 lots plus parkland dedication) at Corner Bunya Highway & Taylors Road KINGAROY | 02/11/2021 | Decision | Decision Pending (IA and Terms under Negotiation) | Applicant |
| MCU25/0025 | Material Change of Use - Battery Energy Storage System at 397 Kingaroy Barkers Creek Road KINGAROY | 26/09/2025 | Decision | Decision Due 22/04/2026 | Council |

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|---|---|---|---|---|---|
| MCU26/0008 | Minor Change Request for a Material Change of Use – Dual Occupancy at 6 Moonya Street KINGAROY | 12/03/2026 | Decision | Decision Due 08/04/2026 | Council |
| **Division 5** | | | | | |
| MCU24/0025 | Preliminary Approval (including Variation Request) for Material Change of Use – Multiple Dwellings (15 x 2-bedroom units – Veteran Housing) at 44 Stephens Street West MURGON | 02/09/2024 | Decision | Decision Due 15/05/2026 | Applicant |
| MCU25/0033 | Material Change of Use – Music and Arts Festival with Associated Camping at Stonelands Road STONELANDS | 14/10/2025 | Information Request | Information Request Response Due 24/04/2026 | Applicant |
| MCU25/0040 | Material Change of Use – Residential Care Facility (12 x 2 bedroom units) plus Caretakers Accommodation & Ancillary Function Facility at 70 Perkins Street MURGON | 21/11/2025 | Public Notification | Consideration of Submissions ends on 15/04/2026 | Council |
| RAL25/0044 | Reconfiguring a Lot – Subdivision (1 Lot into 40 Lots) at Lysdale Road WONDAI | 16/10/2025 | Decision | Decision Due 24/04/2026 | Council |
| RAL26/0010 | Reconfiguring a Lot – Subdivision (1 Lot into 2 Lots) at 105 Proston Boondooma Road PROSTON | 16/03/2026 | Information Request | Information Request Due 10/04/2026 | Council |
| **Division 6** | | | | | |
| MCU25/0014 | Material Change of Use - Extractive Industry and Environmentally Relevant Activity ERA 16(2)(B) & 16(3)(B) at 1304 Wattlegrove Road GORDONBROOK | 18/06/2025 | Information Request | Information Request Response Due 16/06/2026 | Applicant |
| MCU25/0038 | Material Change of Use – Extractive Industry (Sand & Deco Granite Gravel Quarry) at Pedersens Road DANGORE | 04/11/2025 | Decision | Decision Due 05/05/2026 | Council |
| MCU25/0039 | Material Change of Use – Dwelling House (Secondary Dwelling) at 117 Pedersons Road CUSHNIE | 04/11/2025 | Information Request | Information Request Response Due 22/05/2026 | Applicant |
| MCU26/0011 | Material Change of Use – Dwelling House (Secondary Dwelling) at 1018 River Road GORDONBROOK | 19/03/2026 | Information Request | Information Request Due 17/04/2026 | Council |
| MCU26/0012 | Material Change of Use – Dwelling House at 45 Navy Bean Road MEMERAMBI | Awaiting Payment | Confirmation | Confirmation Notice Due 10/04/2026 | Applicant |
| RAL26/0006 | Reconfiguring a Lot for a Boundary Realignment (2 Lots into 2 Lots) at River Road INVERLAW & 65 Smiths Road GORDONBROOK | 19/02/2026 | Decision | Decision Due 16/04/2026 | Council |

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|---|---|---|---|---|---|
| OPW26/0003 | Operational Works for Earthworks, Road Works, Water & Sewerage Infrastructure 102 Scott Street WONDAI | 18/02/2026 | Decision | Decision Due 07/05/2026 | Council |

## 13.8 DELEGATED AUTHORITY REPORTS (1 MARCH 2026 TO 31 MARCH 2026)

**File Number:** **15-4-2026**

**Author:** **Manager Planning & Development**

**Authoriser:** **Chief Executive Officer**

### PRECIS

This report provides a list of all planning and development related reports signed by the Chief Executive Officer (or approved delegate) under delegated authority from 1 March 2026 to 31 March 2026.

### SUMMARY

This report comprises a listing of three (3) reports approved by delegated authority from 1 March 2026 to 31 March 2026.

### OFFICER'S RECOMMENDATION

That South Burnett Regional Council note and receive the Delegated Authority Report, for the month of March 2026.

### BACKGROUND

| Application No. | Description and Location | Approval Date |
|---|---|---|
| **Division 1** | | |
| RAL18/0001.01 | Extension to currency period request to Development Permit RAL18/0001 for Reconfiguring a lot – Subdivision (1 lot into 49 lots) at 130 Taylors Road KINGAROY. | 19/03/2026 |
| RAL25/0019 | Reconfiguring a Lot – Subdivision (2 lot into 29 lots) at 6 Munro Street & 35 Arthur Street West NANANGO | 26/03/2026 |
| **Division 2** | | |
| RAL25/0046 | Reconfiguring a Lot – Subdivision (1 lot into 4 lots) at Anita Road BLACKBUTT NORTH | 03/03/2026 |
| **Division 3** | | |
| **NIL** | | |
| **Division 4** | | |
| **NIL** | | |
| **Division 5** | | |
| **NIL** | | |
| **Division 6** | | |
| **NIL** | | |

To view the full decision notices please visit Council's website: Current Development Applications | South Burnett Regional Council

### ATTACHMENTS

**Nil**

## 13.9 DEVELOPMENT PERMIT FOR MATERIAL CHANGE OF USE FOR AN UNDEFINED USE (BATTERY ENERGY STORAGE SYSTEM) AND RECONFIGURING A LOT - LEASE EXCEEDING 10 YEARS AT 397 KINGAROY BARKERS CREEK ROAD, KINGAROY (AND DESCRIBED AS LOT 5 ON SP219361). THE APPLICANT IS M RENEWABLES AUSTRALIA DEVELOPMENTS PTY LTD C/- RPS AAP CONSULTING PTY LTD

**File Number:** **MCU25/0025**

**Author:** **Manager Planning & Development**

**Authoriser:** **Chief Executive Officer**

### PRECIS

This is a report for a development application for a Development Permit for Material Change of Use for an Undefined Use (Battery Energy Storage System) and Reconfiguring a Lot – Lease Exceeding 10 Years at 397 Kingaroy Barkers Creek Road, Kingaroy (and described as Lot 5 on SP219361). The applicant is M Renewables Australia Developments Pty Ltd c/- RPS AAP Consulting Pty Ltd.

### SUMMARY

- The proposal involves the establishment of a Battery Energy Storage System (BESS) and a lease area within the existing Kingaroy Solar Farm at 397 Kingaroy Barkers Creek Road, Kingaroy.
- The subject site is 60.96Ha in area and is located in the Rural Zone under the South Burnett Regional Council Planning Scheme 2017 v2.0.
- The proposal triggered Impact Assessment as the Material Change of Use for an Undefined Use and the Reconfiguring a Lot for a lease exceeding 10 years (less than the minimum lot size) are impact assessable under the Planning Scheme.
- Whilst the development application was assessed against the entire Planning Scheme, particular consideration was given to following provisions and Codes:
  - Strategic Framework.
  - Rural Zone Code.
  - Reconfiguring a Lot Code.
  - Services and Works Code.
- The development proposed a Material Change of Use and Reconfiguring a Lot near a State transport corridor. Referral to SARA was triggered under Schedule 10 of the Planning Regulation 2017. SARA's response is included as **Attachment D**.
- Council issued an Action Notice dated 10 September 2025 and a Confirmation Notice dated 1 October 2025 identifying information and referral requirements for the application.
- Public Notification was undertaken between 16 January 2026 and 9 February 2026. Fourteen (14) properly made submissions and one (1) not properly made submission were received for the proposed development. Properly made submissions are included as **Attachment E.**
- The development application has been assessed and the proposal generally meets the requirements of the relevant Code/s of the SBRC Planning Scheme 2017 v2.0 or has been conditioned to comply.
- Attachments:
  A – Statement of Reasons.
  B – Infrastructure Charges Notice.
  C – Approved Plan/s.
  D – Referral Agency Response.
  E – Submission/s Received.
  F – Stormwater Management Plan
  G – Noise Impact Assessment
  H – Traffic Impact Assessment
  I – Preliminary Hazard Analysis

- The development application is recommended for approval subject to reasonable and relevant conditions.

**OFFICER'S RECOMMENDATION**
That Council approve the Development Permit for Material Change of Use for an Undefined Use (Battery Energy Storage System) and Reconfiguring a Lot – Lease Exceeding 10 Years at 397 Kingaroy Barkers Creek Road, Kingaroy (and described as Lot 5 on SP219361), subject to the following conditions.

## ASSESSMENT MANAGER CONDITIONS

**GENERAL**

GEN1. The development must be completed and maintained generally in accordance with the approved plans and documents and any amendments arising through conditions to this development approval:

| Drawing Title | Prepared by | Ref No. | Rev. | Date |
|---|---|---|---|---|
| BESS Overall Site Plan | Metlen | AUS-KNG(BESS)-006-11 | R01 | 28.11.2024 |
| BESS Layout | Metlen | AUS-KNG(BESS)-006-11 | R01 | 28.11.2024 |
| Proposed Lease | RPS | TLX15510-1 | - | 3 Mar 25 |
| Stormwater Management Plan | TOPO | 4-0270/R3694 | B | 31-1-2025 |
| Noise Impact Assessment | SLR | 620.041563.00001 | 0.2 | 4 March 2025 |
| Traffic Impact Assessment | SLR | 620.041577.00001 | 3.0 | 18 February 2025 |
| Preliminary Hazard Analysis | Riskcon | RCE-24331 | Rev 1 | 10/03/2025 |

Where there is a conflict between the conditions of this approval and the details shown on the approved plans and documents, the conditions of approval prevail.

**Timing:** At all times.

GEN2. The approved development is a Battery Energy Storage System (BESS) and associated infrastructure ancillary to the existing approved solar farm, as shown on the approved plans. The approval does not authorise any other use on the site.

**COMMENCEMENT OF USE**

GEN3. Submit to Council a Notice of Intention to Commence the Approved Use at least ten (10) business days prior to commencement of BESS operations. The notice must:
   a. Nominate the day the approved use is intended to commence.
   b. Include evidence (e.g. photographs, certificates, as-constructed information and statements of compliance) demonstrating that all relevant conditions of this approval have been complied with.

**LEASE**

GEN4. The approved BESS use and associated works must be confined to the lease area approved under the Reconfiguring a Lot component of the application.

**DECOMMISSIONING AND SITE REHABILITATION**

GEN5. Prepare and submit to Council for approval a Decommissioning and Site Rehabilitation Plan that, as a minimum, addresses:
a. Timing and staging of removal of all BESS infrastructure within the lease area.
b. Methods for removal, transport and lawful disposal of BESS infrastructure.
c. Extent and sequence of rehabilitation works.

GEN6. Decommissioning and rehabilitation must occur in accordance with the approved Decommissioning and Site Rehabilitation Plan.

**Timing:** Plan to be approved prior to commencement of use.

**COMPLIANCE, TIMING, AND COSTS**

GEN7. All conditions of the approval shall be complied with before the change occurs (prior to the commencement of the use) and while the use continues, unless otherwise noted within these conditions.

GEN8. The development shall be maintained in accordance with the Approved Plans, subject to and modified conditions of this approval.

GEN9. Maintain the site in a clean and orderly state at all times.

GEN10. All works, including the repair or relocation of services is to be completed at no cost to Council.

**LANDSCAPING AND VISUAL AMENITY**

GEN11. Existing landscaping established for the solar farm along Kingaroy Barkers Creek Road must be retained and maintained, except where removal is necessary for access, safety or infrastructure installation, in which case replacement planting of similar scale and function must be provided.

**HAZARD, SAFETY AND EMERGENCY MANAGEMENT**

GEN12. Implement the recommendations of the Preliminary Hazard Analysis prepared by Riskcon, including but not limited to:
a. Use of lithium iron phosphate (LFP) battery technology and container design standards.
b. Separation distances between containers and between BESS and other infrastructure.
c. Dangerous goods classification and limits on quantities of stored materials.

GEN13. Prior to commencement of use, prepare and implement an Emergency Management Plan for the BESS which must address at a minimum:
a. Fire detection and suppression systems (including any internal water/gas systems within containers).
b. Emergency response procedures for fire, thermal runaway and gas release events.
c. Site access and water supply arrangements for firefighting, including any static water storage and hydrant/standpipe locations.
d. Communication protocols with nearby residents and emergency services.
e. Evacuation arrangements and exclusion areas during an incident.

GEN14. Dangerous goods, fuels and chemicals stored on site must be limited to quantities and classes consistent with the Preliminary Hazard Analysis and be stored and handled in accordance with relevant Australian Standards and regulatory requirements.

**NOISE**

GEN15. Implement the recommendations of the Noise Impact Assessment prepared by SLR, including selection of low-noise equipment, orientation and shielding of plant, and operational controls (including inverter loading limits during night-time periods).

GEN16. Operational noise emissions from the BESS, when measured at any existing dwelling, must not exceed the applicable intrusive and acoustic quality objectives identified in the Environmental Protection (Noise) Policy 2019 for the relevant time of day.

**ENGINEERING WORKS**

ENG1. Complete all works approved and works required by conditions of this development approval and/or any related approvals at no cost to Council, prior to commencement of the use unless stated otherwise.

ENG2. Undertake Engineering designs and construction in accordance with the Planning Scheme, Council's standards, relevant design guides, and Australian Standards.

ENG3. Be responsible for the full cost of any alterations necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

**LOCATION, PROTECTION AND REPAIR OF DAMAGE TO COUNCIL AND PUBLIC UTILITY SERVICES INFRASTRUCTURE AND ASSETS**

ENG4. Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG5. Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damages immediately upon completion of works associated with the development

**STORMWATER MANAGEMENT**

ENG6. Provide stormwater management generally in accordance with the approved Stormwater Management Plan – Kingaroy BESS prepared by TOPO, Revision B, dated 31-1-2025.

ENG7. Provide overland flow paths that do not adversely alter the characteristics of existing overland flows on other properties or that create an increase in flood damage on other properties.

ENG8. Discharge all minor storm flows that fall or pass onto the site to the lawful point of discharge in accordance with the Queensland Urban Drainage Manual (QUDM).

ENG9. Ensure that adjoining properties and roadways are protected from ponding or nuisance from stormwater as a result of any site works undertaken as part of the proposed development.

**WATER SUPPLY**

ENG10. Provide a potable water supply for the development independent of the Council's water reticulation system. Monitor water quality continuously to ensure compliance with Australian Drinking Water Guidelines - current edition 2011 and enHealth Guidance of use of Rainwater standards for potable water.

**ON-SITE WASTEWATER DISPOSAL**

ENG11. Connect the development to an on-site wastewater disposal system, in accordance with the AS1547:2012 *On-site domestic wastewater management* and the Queensland Plumbing and Wastewater Code - 2019.

ENG12. Obtain a Development Permit for Plumbing Works for the on-site sewerage treatment system.

**PARKING AND ACCESS - GENERAL**

ENG13. Provide a sufficient car parking space to meet the need of the development.

ENG14. Provide vehicle bollards or tyre stops to control vehicular access and to protect landscaping or pedestrian areas where appropriate.

ENG15. Ensure access to car parking spaces, vehicle loading and manoeuvring areas and driveways remain unobstructed and available for their intended purpose during the hours of operation.

ENG16. Maintain dust suppression treatment to all internal roadways, and vehicle manoeuvring areas ensuring not to have an adverse impact on adjoining properties.

**PARKING AND ACCESS - SERVICING**

ENG17. Ensure loading and unloading operations are conducted wholly within the site and vehicles enter and exit the site in a forward direction.

**TELECOMMUNICATION**

ENG18. Provide telecommunication services to each lot in accordance with the standards and requirements of the relevant service provider.

**ELECTRICITY**

ENG19. Provide electricity supply to all lots within the development to comply with Ergon Energy's requirements.

ENG20. Submit to Council, written confirmation from an electricity provider that an agreement has been made for the supply of electricity.

**EARTHWORKS - GENERAL**

ENG21. Earthworks per site involving cut or fill with a net quantity of material greater than $50m^3$, requires an Operational Work application.

ENG22. Undertake earthworks in accordance with the provisions of AS3798 Guidelines on Earthworks for Commercial and Residential Developments.

**EROSION AND SEDIMENT CONTROL - GENERAL**

ENG23. Ensure that all reasonable actions are taken to prevent sediment or sediment laden water from being transported to adjoining properties, roads and/or stormwater drainage systems.

ENG24. Remove and clean-up sediment or other pollutants in the event that sediment or other pollutants are tracked/released onto adjoining streets or stormwater systems, at no cost to Council.

**STANDARD ADVICE**

ADV1. Section 85(1)(b) of the *Planning Act 2016* provides that if this approval is not acted upon within a period of six (6) years the approval will lapse.

ADV2. This development approval does not authorise any activity that may harm Aboriginal Cultural Heritage. Under the Aboriginal Cultural Heritage Act 2003 you have a duty of care in relation to such heritage. Section 23(1) provides that "A person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage." Council does not warrant that the approved development avoids affecting Aboriginal Cultural Heritage. It may therefore be prudent for you to carry out searches, consultation, or a Cultural Heritage assessment to ascertain the presence or otherwise of Aboriginal Cultural Heritage. The Act and the associated duty of care guidelines explain your obligations in more detail and should be consulted before proceeding. A search can be arranged by visiting https://www.datsip.qld.gov.au and filling out the Aboriginal and Torres Strait Islander Cultural Heritage Search Request Form.

ADV3. Attached for your information is a copy of Chapter 6 of the *Planning Act 2016* as regards Appeal Rights.

ADV4. Council is offering a reduction in infrastructure charges payable through the development incentive scheme which is available between 1 December 2020 and 31 December 2027. Eligible development under this scheme is required to be completed by 31 December 2027. For further information or application form please refer to the rules and procedures available on Council's website.

ADV5. Infrastructure charges are now levied by way of an infrastructure charges notice, issued pursuant to section 119 of the *Planning Act 2016*.

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**FINANCIAL AND RESOURCE IMPLICATIONS**

No implication can be identified.

**LINK TO CORPORATE/OPERATIONAL PLAN**

Growing our Region's Economy and Prosperity

- GR8 Support and advocate for appropriate growth and development with responsive planning schemes, process, customer service and other initiatives.

**COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)**

Refer to CONSULTATION in this report.

**LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)**

No implication identified.

**POLICY/LOCAL LAW/DELEGATION IMPLICATIONS**

No implication can be identified.

**ASSET MANAGEMENT IMPLICATIONS**

No implication can be identified.

**REPORT**

**BACKGROUND**

| **SITE DETAILS** | | | | |
|---|---|---|---|---|
| **Site address** | 397 Kingaroy Barkers Creek Road, Kingaroy | | | |
| **Real property description** | Lot 5 on SP219361 | | | |
| **Site area** | 60.96ha | | | |
| **Owner** | Fogg Group Pty Ltd | | | |
| **SITE CHARACTERISTICS** | | | | |
| **Current land use/s** | Existing solar farm and associated infrastructure | | | |
| **Site Frontage/s** | Kingaroy Barkers Creek Road | | | |
| **Roads** | **Order of Road** | **Width of Road Reserve** | **Width of Pavement** | **Road Material** |
| Kingaroy Barkers Creek Road | State controlled road | 30m | 6m | Sealed |
| **Easements or encumbrances on title** | Existing approved lease and easement arrangements associated with solar farm approval | | | |
| **Existing structures** | Solar farm infrastructure, internal roads and fencing | | | |
| **Environmental Management Register or Contaminated Land Register** | Not identified on the EMR or CLR. | | | |
| **Infrastructure** | Electricity infrastructure. No reticulated water or sewer. | | | |
| **Topography** | Previously cleared and levelled with natural fall toward drainage lines. | | | |
| **Street trees** | Nil. | | | |
| **Other features** | Existing solar farm, flood-prone areas and rural residential development in locality. | | | |
| **PLANNING SCHEME DETAILS** | | | | |
| **Current planning scheme** | **South Burnett Regional Council Planning Scheme 2017 v2.0** | | **Adopted: 16 October 2024 Commenced: 28 October 2024** | |
| **Zone** | Rural Zone | | | |
| **Precinct** | Nil. | | | |
| **Overlay/s** | Agricultural Land Overlay.<br>Airport Environs Overlay.<br>Biodiversity Areas Overlay.<br>Flood Hazard Overlay. | | | |
| **Infrastructure charges resolution** | Charges Resolution No. 3 | | Effective: 1 July 2019 | |
| **SURROUNDS:** | | | | |
| **Direction** | **Land use** | | **Zone/Precinct** | |
| **North** | Rural land / dwellings | | Rural Zone | |
| **South** | Rural land / dwellings | | Rural Zone | |
| **East** | Rural land / dwellings | | Rural Zone | |
| **West** | Rural land / Kingaroy | | Rural Zone | |
| **Other features** | Existing Kingaroy Solar Farm. | | | |

| **APPLICATION HISTORY** |
|---|
| Judgment No. 4261 of 2018 and Judgment No. 4374 of 2019 approved the existing solar farm and associated lease arrangements on the subject land. |

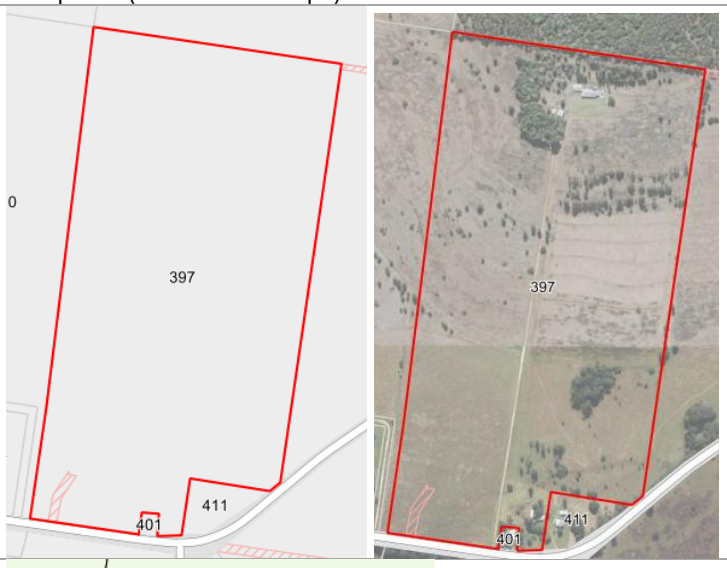
| PRE-LODGEMENT/CONSULTATION HISTORY |
| --- |
| Pre-lodgement consultation undertaken prior to lodgement of the application. |

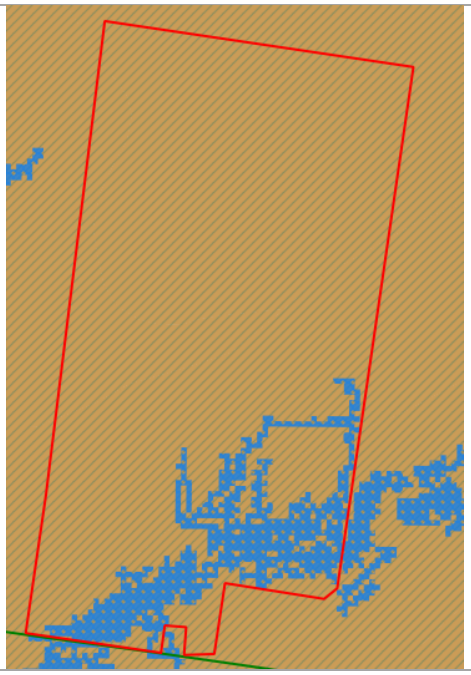
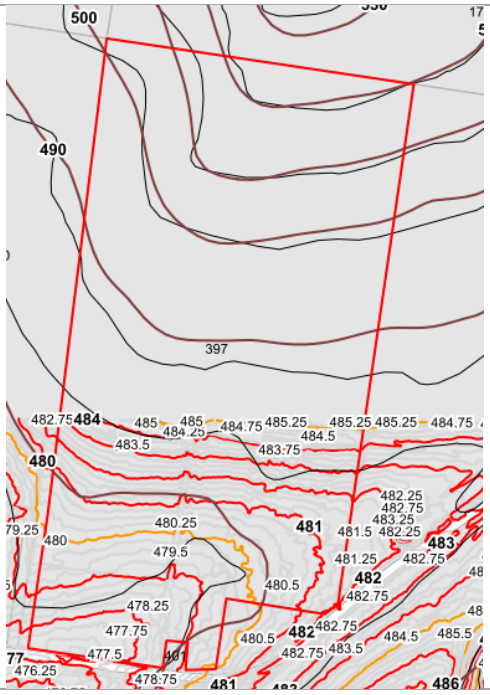
## THE SITE

This section of the report provides a mapping of the site, notable characteristics of the site, the standard of servicing, and the form of development in the immediately locality (refer to Table 1).

### SITE DESCRIPTION & EXISTING USE

Table 1 - Maps & Descriptions (Source: IntraMaps)

| | |
| --- | --- |
| Site |  |
| Zoning |  |

| | |
|---|---|
| Overlays |  |
| Services | Nil |
| Topography |  |

## PROPOSAL DETAILS

The proposal plans are shown in Attachment C of this report and the proposal details are set out in Table 2 below.

### SUMMARY DETAILS

Table 2 - Summary Details

| | | | |
|---|---|---|---|
| **Name of applicant** | M Renewables Australia Developments Pty Ltd c/- RPS AAP Consulting Pty Ltd | | |
| **Application type** | Aspects of Development | Type of Approval Requested | |
| | | Preliminary Approval | Development Permit |
| | Material Change of Use (MCU) | | **X** |
| | Reconfiguration of a Lot (RAL) | | **X** |
| | Building Work (BW) | | |
| | Operational Work (OPW) | | |
| **Proposed development** | Material Change of Use for an Undefined Use being a Battery Energy Storage System and Reconfiguring a Lot for a lease exceeding 10 years | | |
| **Variations sought** | Nil | | |
| **Level of assessment** | Impact | | |
| **MATERIAL CHANGE OF USE – DEVELOPMENT PERMIT** | | | |
| **Gross Floor Area + Outdoor Storage Area** | Battery Energy Storage System with nominal capacity up to approximately 100MWh within applicant technical material. | | |
| **Storeys (height)** | Ancillary containerised / utility scale infrastructure | | |
| **Site Cover** | Within existing developed solar farm footprint | | |
| **Landscape** | Existing landscape screening retained | | |
| **Parking** | Existing solar farm access / operational arrangements | | |
| **Access** | Existing approved access to Kingaroy Barkers Creek Road | | |
| **Setbacks** | Within existing solar farm land and separated from adjoining dwellings by existing site layout | | |
| **RECONFIGURING A LOT – DEVELOPMENT PERMIT** | | | |
| **Number of existing lots** | 1 | | |
| **Easements or leases proposed** | Lease area exceeding 10 years (Lease A) | | |
| **Number of proposed lots** | 1 lease area (no additional freehold lots) | | |
| **Lot areas** | Lease A approximately 1.47ha. | | |
| **Access** | Via existing solar farm access to Kingaroy Barkers Creek Road. | | |

The proposal is co-located within the existing Kingaroy Solar Farm and is intended to support the operation of the facility and broader electricity network.

## CONSULTATION UNDERTAKEN

### Referral Agencies

To determine whether the development application requires referral to the State Assessment and Referral Agency (SARA) or 'another entity', an assessment of the proposal against Schedule 10 of the Regulation has been undertaken.

| | |
|---|---|
| **State Assessment and Referral Agency** | The application triggered referral under Schedule 10 for development near a State transport corridor. Refer to Attachment D. |
| **Other** | Nil |

### Council Referrals

| ***Internal Referral Specialist*** | ***Referral / Response*** |
|---|---|
| Development Engineer | Council's Development Engineer provided standard engineering conditions and calculated the Infrastructure Charges. Refer to Attachment B. |
| Infrastructure Charges Unit | Council adopted the LGIP on 14 June 2019 which commenced on 1 July 2019. The types of developments that may trigger the issuing of an infrastructure charges notice are:<br><br>• Reconfiguring a lot;<br>• Making a material change of use; and<br>• Carrying out building work.<br><br>Refer to Attachment B for the Infrastructure Charges Notice. |

### Public Notification

| | |
|---|---|
| **Date Notification Commenced** | 16 January 2026 |
| **Date Notification Completed** | 9 February 2026 |
| **Date notice of compliance received** | 10 February 2026 |

| **Submission Summary** | |
|---|---|
| **Submitter Issue** | **Response** |
| Concerns were raised regarding noise emissions from the BESS, including cumulative noise with the existing solar farm and night-time operations. | Reasonable and relevant conditions have been imposed requiring compliance with acoustic quality objectives. |
| Concerns were raised regarding stormwater and flooding impacts, including the potential worsening of flooding on Kingaroy Barkers Creek Road and downstream areas. | The proposal has been supported by a Stormwater Management Report and conditions have been imposed requiring a no worsening outcome and certification. |
| Concerns were raised regarding fire, toxic smoke, hazardous events and the adequacy of risk assessment. | The proposal has been assessed against a Preliminary Hazard Analysis and conditions require a Fire Safety and Emergency Management Plan and compliance with the approved hazard measures. |
| Concerns were raised regarding construction traffic, dust, amenity and cumulative impacts with the existing solar farm. | Construction management, access, dust and traffic conditions have been imposed to mitigate impacts to a reasonable extent. |
| Concerns were raised regarding decommissioning, recycling, end-of-life management and property impacts. | A decommissioning plan is required as a condition of approval. Further, property value is not a relevant planning matter. |

## FRAMEWORK FOR ASSESSMENT

Categorising Instruments for Statutory Assessment

For the *Planning Act 2016*, the following Categorising Instruments may contain Assessment Benchmarks applicable to development applications:

- the *Planning Regulation 2017*
- the Planning Scheme for the local government area
- any Temporary Local Planning Instrument
- any Variation Approval

Of these, the planning instruments relevant to this application are discussed in this report.

The following sections of the *Planning Act 2016* are relevant to this application:

*45(5) An impact assessment is an assessment that –*
*(a) must be carried out –*
*(i) against the assessment benchmarks in a categorising instrument for the development; and*
*(ii) having regard to any matters prescribed by regulation for this subparagraph; and*
*(b) may be carried out against, or having regard to, any other relevant matter, other than a person's personal circumstances, financial or otherwise.*

In regard to the prescribed regulation, being the *Planning Regulation 2017,* the following sections apply in the assessment of this application:

*Section 30 – Assessment Benchmarks generally*
*(1) For section 45(5)(i) of the Act, the impact assessment must be carried out against the assessment benchmarks for the development stated in schedules 9 and 10.*
*(2) Also, if the prescribed assessment manager is the local government, the impact assessment must be carried out against the following assessment benchmarks—*
*(a) the assessment benchmarks stated in—*
*(i) the regional plan for a region, to the extent the regional plan is not identified in the planning scheme as being appropriately integrated in the planning scheme; and*
*(ii) the State Planning Policy, part E, to the extent part E is not identified in the planning scheme as being appropriately integrated in the planning scheme; and*
*(iii) a temporary State planning policy applying to the premises;*
*(b) if the development is not in a local government area-any local planning instrument for a local government area that may be materially affected by the development;*
*(c) if the local government is an infrastructure provider—the local government's LGIP.*
*(3) However, an assessment manager may, in assessing development requiring impact assessment, consider an assessment benchmark only to the extent the assessment benchmark is relevant to the development.*

**PLANNING REGULATION 2017**
The Planning Regulation 2017 forms the mechanism by which the provisions of the Act are administered. In particular, the Regulation has the ability to regulate and prohibit development and determines the assessment manager and the matters that trigger State interests.

| **PLANNING REGULATION 2017** | |
|---|---|
| Prohibited development | The proposed development is not prohibited development in accordance with the *Planning Regulation 2017.* |
| Infrastructure charges | The *Planning Regulation 2017* provides for the levying of infrastructure charges on development approvals. Charges apply to this development. |

| | |
|---|---|
| Schedules 9, 10 and 12A | Schedule 10 identifies referral matters relevant to this application, including referral associated with development near a State transport corridor. |

| **REGIONAL PLAN** | |
|---|---|
| Wide Bay Burnett Regional Plan (WBBRP) Designation | The Wide Bay Burnett Regional Plan 2023 identifies the land within a Priority Agricultural Area. The proposal is co-located within an existing approved solar farm footprint and does not further expand development across new rural land. |

**STATE PLANNING POLICY**

The State Planning Policy (July 2017) (SPP) commenced on the 3 July 2017 and is effective at the time of writing this report. The Planning Regulation 2017 (PR 2017) states the assessment must be carried out against the assessment benchmarks stated in Part E of the State Planning Policy to the extent Part E is not appropriately integrated into the planning scheme.

In accordance with section (8)(4)(a) of the Act, the State Planning Policy applies to the extent of any inconsistency with the Planning Scheme.

| **STATE PLANNING POLICY PART E - JULY 2017** | |
|---|---|
| **Interests** | **Assessment comments** |
| Liveable communities and housing | No applicable assessment benchmarks. |
| Economic growth<br>• Agriculture.<br>• Development and construction.<br>• Mining and extractive resources.<br>• Tourism. | No applicable assessment benchmarks.<br><br>The agricultural values associated with the land have been considered against the relevant codes of the Planning Scheme. |
| Planning for the environment and heritage.<br>• Biodiversity.<br>• Coastal environment.<br>• Cultural heritage.<br>• Water quality | BIODIVERSITY<br>• MSES - Regulated vegetation<br>An assessment against the relevant codes of the Planning Scheme has been undertaken for the identified biodiversity values. |
| Safety and resilience to hazards<br>• Emissions and hazardous activities.<br>• Natural hazards, risk, and resilience. | NATURAL HAZARDS RISK AND RESILIENCE<br>• Flood hazard area - local government flood mapping area<br>The site is affected by the Flood Hazard Overlay under the Planning Scheme. An assessment against the relevant codes of the Planning Scheme has been undertaken for the identified hazards. |
| Infrastructure<br>• Energy and water supply.<br>• Infrastructure integration.<br>• Transport infrastructure.<br>• Strategic airports and aviation facilities.<br>• Strategic ports. | Appropriate infrastructure to be established in accordance with Council standards. |

**DEVELOPMENT CODES**

The application is assessable against the following assessment benchmarks of the SBRC Planning Scheme 2017 v2.0:

- Strategic Framework
- Rural Zone Code

- Services and Works Code

The development was assessed against all of the assessment benchmarks listed above and is considered to comply *except* as follows:

| **Rural Zone Code** | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |
| **Section 1 General** | |
| **PO24**<br>A renewable energy facility does not compromise the value of productive rural land. | **AO24**<br>A Renewable energy facility is not located on agricultural land as identified on SPP Interactive Mapping Plan Making. |
| **Applicant's Alternative Outcome** | |
| The applicant submits:<br><br>The proposed BESS is taking place on the site of an existing Renewable energy facility Solar Farm and thus does not result in any loss of value of agricultural land. | |
| **Officer's Comment** | |
| The proposal relies on the existing approved Solar Farm use and the co-location of the BESS within that established footprint. That approach is reasonable, as the proposal does not expand the disturbance footprint into additional rural land and does not create a new rural lot. | |

| **Rural Zone Code** | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |
| **Section 1 General** | |
| **PO25**<br>A renewable energy facility a. is conveniently located with regard to the electricity distribution network b. is on a site that requires minimal operational work to facilitate the use c. does not cause significant off site adverse impacts with regard to noise, glare or visual amenity. | No acceptable outcome provided. |
| **Applicant's Alternative Outcome** | |
| The applicant submits:<br><br>The proposed BESS is located within an existing Renewable energy facility, which allows for convenient access to the distribution network. The BESS does not require any additional personnel for operation. Noise mitigation measures have been nominated to ensure nearby sensitive uses are not impacted by the operation of the BESS. Refer to Appendix G. | |
| **Officer's Comment** | |
| The proposal is well located with respect to the electricity distribution network due to its physical integration with the existing Solar Farm infrastructure. The applicant also identifies that the use will require minimal operational work and limited staffing. The primary concern under PO25 is whether off-site impacts, especially noise, are acceptable. That issue is considered to be satisfied through reasonable and relevant conditions requiring compliance with recommendations of the acoustic assessment. | |

| **Rural Zone Code** | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |

| Section 1 General | |
|---|---|
| **PO26**<br>The productive capacity and utility of agricultural land for rural activities is maintained. | **AO26.1**<br>The proposal is not located on agricultural land as identified on SPP Interactive Mapping Plan Making. or<br><br>**AO26.2**<br>The proposal is necessary for the efficient production and processing of a crop grown in the area. or<br><br>**AO26.3**<br>The proposal provides an alternate productive rural activity that supports regionally significant industry. or<br><br>**AO26.4**<br>An agricultural sustainability report prepared by a suitably qualified agronomist demonstrates that the lot is suitability sized for the proposed activity. Including a dwelling house including yard and b There is sufficient water for the proposed activity and c The allotment is capable of being connected to reticulated electricity and d The proposed activity is financially viable, requiring a viability assessment that includes capital costs, operational costs, sustainable yields to support a family, climate, soils and geological factors affecting crop growth, nutrients, salinity, topography, susceptibility to flooding and erosion and an assessment of market robustness both recent and projected and alternative practices in the event of failure.<br><br>**AO26.5**<br>Development is consistent with any Soil Conservation Plan that applies to the locality, as approved by the relevant State agency. |
| **Applicant's Alternative Outcome** | |
| The applicant submits:<br><br>The proposed BESS is taking place on the site of an existing Renewable energy facility Solar Farm and thus does not result in any loss of value of agricultural land. It is anticipated that the land will be available for agricultural use once the Renewable energy facility ceases use. | |
| **Officer's Comment** | |
| While the site is mapped agricultural land, the land is already committed to an existing major utility use. The additional BESS footprint is limited and does not further fragment or sterilise surrounding rural land. | |

| Reconfiguring a Lot Code | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |
| **Section 1 General** | |
| **PO16** | **AO16.1** |

| | |
|---|---|
| The productive capacity and utility of agricultural land for rural activities is maintained. | In the Rural zone only, no additional allotments are created in the area identified as agricultural land on SPP Interactive Mapping Plan Making or<br><br>**AO16.2**<br>In the Rural zone only, a Farm management plan prepared by a suitably qualified agronomist demonstrates that the existing productivity of the land area is not reduced. |
| **Applicant's Alternative Outcome** | |
| The applicant submits:<br><br>The proposed development seeks to create a temporary Lease area, and thus does not create any freehold allotments within agricultural land. Being temporary in nature, the proposed Lease will not diminish the utility of the agricultural land for rural activities. Notably, the development is taking place on a site containing an existing approved Solar Farm, and thus there are currently no agricultural activities occurring within the site. | |
| **Officer's Comment** | |
| The lease does not create a new freehold allotment and does not further divide the land in a conventional rural subdivision sense. | |

**Other Relevant Matters**

The consideration of other relevant matters applies to the assessment and decision-making process for this impact assessable development application. The below summarises the matters considered by the planning assessment.

| | |
|---|---|
| **Applicant submitted reports** | • Town Planning Report<br>• Planning Scheme Code Responses.<br>• Traffic Impact Assessment.<br>• Stormwater Management Report.<br>• Noise Impact Assessment.<br>• Preliminary Hazard Analysis / Risk and Hazard Assessment.<br>• Proposal Plans |
| **Assessment considerations of merits** | Impact assessment under the Planning Act is an 'unbounded' assessment, meaning relevant matters other than those prescribed can also be considered, and weighing and balancing 'inside the box' as well as with factors 'outside the box' can take place in reaching a decision.'<br><br>A relevant matter is the existing Planning and Environment Court approval for the Solar Farm on the subject land. That approval establishes the site as an existing major utility location and provides important planning context for assessing the BESS and lease as an intensification within an already approved infrastructure use rather than as a new land use or lease over rural land. |

## CONCLUSION

The proposed development has been assessed with regard to the applicable assessment benchmarks as identified within the report and the attached Statement of Reasons (refer to Attachment A). The proposed development generally complies with the assessment benchmarks, or it can be conditioned to comply. Where the applicant has not provided sufficient information,

conditions have been imposed to ensure compliance. It is therefore recommended that the development application be approved subject to the above conditions.

**ATTACHMENTS**

1. **Attachment A - Statement of Reasons**
2. **Attachment B - Infrastructure Charges Notice**
3. **Attachment C - Approved Plan/s**
4. **Attachment D - Referral Agency Response**
5. **Attachment E - Submission/s Received**
6. **Attachment F - Stormwater Management Plan**
7. **Attachment G - Noise Impact Assessment**
8. **Attachment H - Traffic Impact Assessment**
9. **Attachment I - Preliminary Hazard Analysis**

# NOTICE ABOUT DECISION – STATEMENT OF REASONS

*The following information is provided in accordance with Section 63(4) & (5) of the Planning Act 2016*

| | |
|---|---|
| **Applicant:** | M Renewables Australia Developments Pty Ltd<br>c/- RPS AAP Consulting Pty Ltd |
| **Application No:** | MCU25/0025 |
| **Proposal:** | Material Change of Use for Undefined Use (Battery Energy Storage System) and Reconfiguring a Lot (Lease Exceeding 10 Years) |
| **Street Address:** | 397 Kingaroy Barkers Creek Road, Kingaroy |
| **RP Description:** | Lot 5 on SP219361 |
| **Assessment Type:** | Impact Assessment |
| **Number of Submissions:** | Fourteen (14) properly made submissions |

On DATE the above development was recommended for:

☒ Approval
☐ Refusal

**1. Reasons for the Decision**

The reasons for this decision are:

- The proposed Battery Energy Storage System is located within the footprint of the existing approved Kingaroy Solar Farm and is functionally associated with the established renewable energy facility.
- The proposal was assessed against the Rural Zone Code, Reconfiguring a Lot Code and the Services and Works Code and was found to comply with the applicable acceptable outcomes or to otherwise achieve the corresponding performance outcomes. The proposal was also considered to advance the intent set out in the Strategic Framework.
- The proposal maintains the utility of the site for the approved renewable energy use, does not create additional freehold fragmentation of rural land and is appropriately located with regard to the electricity distribution network.
- The proposal is located within an existing disturbed and developed part of the site, outside mapped biodiversity constraints and outside overland flow paths and natural drainage features.
- The proposal is capable of compliance with stormwater, flooding and drainage matters where subject to conditions requiring detailed design, certification and implementation of stormwater measures to ensure no unacceptable worsening of flood behaviour or stormwater impacts.
- Noise and amenity impacts were considered having regard to off-site impacts on nearby sensitive uses. The proposal is capable of compliance, subject to conditions requiring compliance with the recommendations of the acoustic assessment.
- Hazard and safety matters were considered having regard to the applicant's Preliminary Hazard Analysis. The proposal is capable of compliance subject to conditions requiring a

Fire Safety and Emergency Management Plan, compliance with relevant safety standards and management of dangerous goods and emergency response procedures.

- Subject to reasonable and relevant conditions, the proposal is considered to represent an appropriate outcome on the subject land.

**2. Assessment Benchmarks**

The following are the benchmarks applicable to this development:

- Strategic Framework
- Rural Zone Code
- Reconfiguring a Lot Code
- Services and Works Code

**3. Compliance with Benchmarks**

The development was assessed against all the assessment benchmarks listed above and complies with all of these or can be conditioned to comply.

**Note**: Each application submitted to Council is assessed individually on its own merit.

# INFRASTRUCTURE CHARGES NOTICE

*(Section 119 of the Planning Act 2016)*

| | |
|---|---|
| **APPLICANT:** | M Renewables Australia Developments Pty Ltd<br>C/-RPS AAP Consulting Pty Ltd<br>Level 8<br>31 Duncan Street<br>FORTITUDE VALLEY QLD 4006 |
| **APPLICATION:** | Material Change of Use - Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years). |
| **DATE:** | [insert date] |
| **FILE REFERENCE:** | MCU25/0025 |

**AMOUNT OF THE LEVIED CHARGE:**
*(Details of how these charges were calculated are shown overleaf)*

| | |
|---|---|
| **$0.00** | **Total** |
| $0.00 | Water Supply Network |
| $0.00 | Sewerage Network |
| $0.00 | Transport Network |
| $0.00 | Parks and Land for Community Facilities Network |
| $0.00 | Stormwater Network |

| | |
|---|---|
| **AUTOMATIC INCREASE OF LEVIED CHARGE:** | The amount of the levied charge is subject to an automatic increase. Refer to the Information Notice attached to this notice for more information on how the increase is worked out. |
| **LAND TO WHICH CHARGE APPLIES:** | Lot 5 On SP219361 |
| **SITE ADDRESS**: | 397 Kingaroy Barkers Creek Road, Kingaroy |
| **PAYABLE TO:** | **South Burnett Regional Council** |
| **WHEN PAYABLE:**<br>*(In accordance with the timing stated in Section 122 of the Planning Act 2016)* | Material Change of Use – When the change happens. |
| **OFFSET OR REFUND:** | Not Applicable. |

This charge is made in accordance with South Burnett Regional Council's ***Charges Resolution (No. 3) 2019***

# DETAILS OF CALCULATION

## Water Supply

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Sewerage

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Transport

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Parks and Land for Community Facilities

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Stormwater

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Levied Charges

| Development Description | Water Supply | Sewerage | Transport | Parks & Land for Community Facilities | Stormwater | Total |
|---|---|---|---|---|---|---|
| BESS Solar Farm | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |
| **Total** | **$0.00** | **$0.00** | **$0.00** | **$0.00** | **$0.00** | **$0.00** |

** In accordance with Section 3.3 of the Charges Resolution, the discount may not exceed the adopted charge. Any surplus discounts will not be refunded, except at South Burnett Regional Council's discretion.*

# INFORMATION NOTICE

| | |
|---|---|
| **Authority and Reasons for Charge** | This Infrastructure Charges Notice has been given in accordance with section 119 of the *Planning Act 2016* to support the Local government's long-term infrastructure planning and financial sustainability. |
| **Appeals** | Pursuant to section 229 and Schedule 1 of the *Planning Act 2016* a person may appeal an Infrastructure Charges Notice. Attached is an extract from the *Planning Act 2016* that details your appeal rights. |
| **Automatic Increase Provision of charge rate ($)** | An infrastructure charge levied by South Burnett Regional Council is to be increased by the difference between the Producer Price Index (PPI) applicable at the time the infrastructure charge was levied, and PPI applicable at the time of payment of the levied charge , adjusted by reference to the 3-yearly PPI average[1]. If the levied charge is increased using the method described above, the charge payable is the amount equal to the sum of the charge as levied and the amount of the increase.<br><br>However, the sum of the charge as levied and the amount of the increase is not to exceed the maximum adopted charge the Authority could have levied for the development at the time the charge is paid. |
| **GST** | The Federal Government has determined that contributions made by developers to Government for infrastructure and services under the *Planning Act* 2016 are GST exempt. |
| **Making a Payment** | This Infrastructure Charges Notice cannot be used to pay your infrastructure charges.<br><br>To pay the levied charge, you must request an Itemised Breakdown showing the total levied charge payable at the time of payment. An Itemised Breakdown must be presented at the time of payment.<br><br>An Itemised Breakdown may be requested by emailing info@southburnett.qld.gov.au |

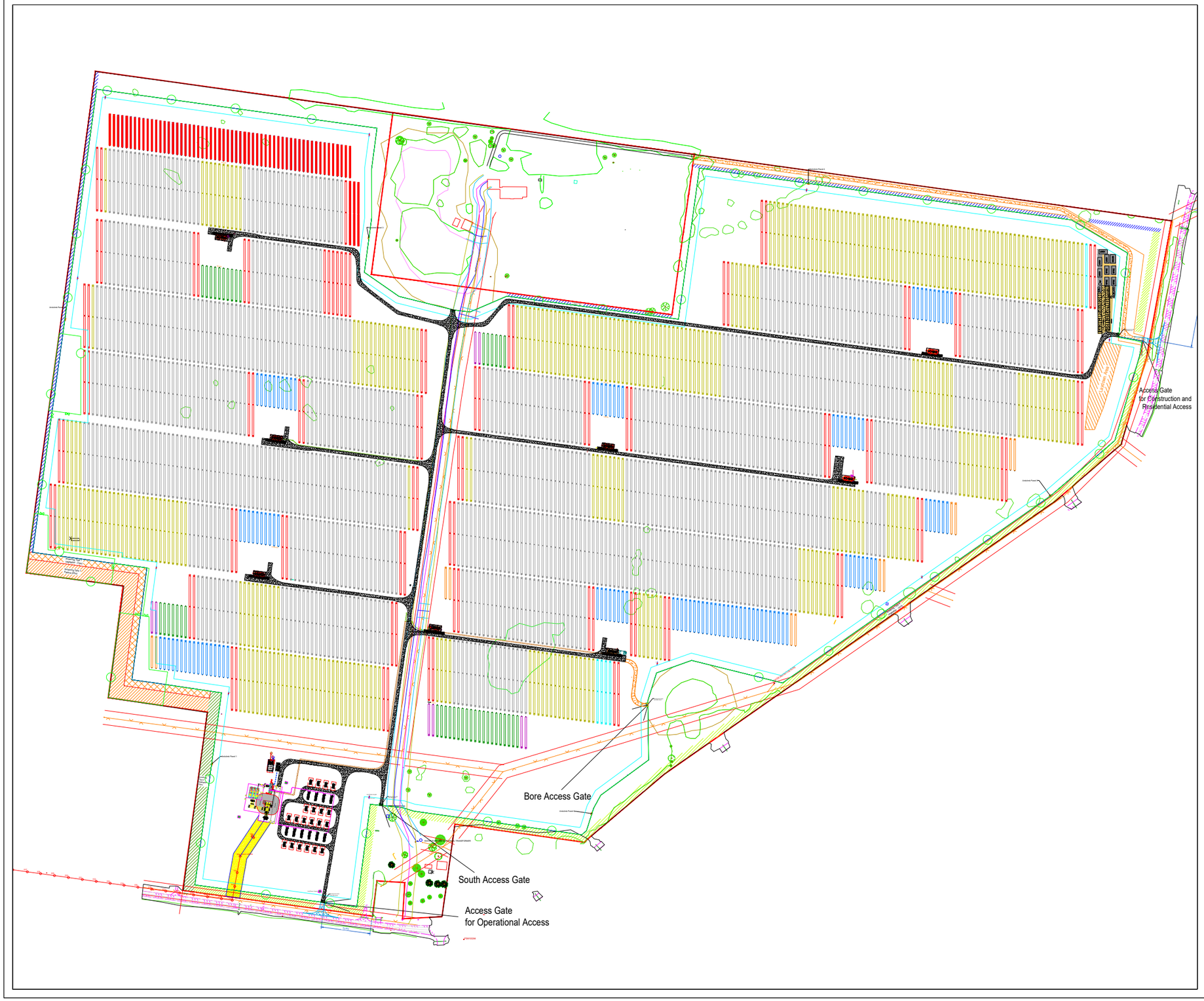
[1] 3-yearly PPI average is defined in section 114 of the *Planning Act 2016* and means the PPI adjusted according to the 3-year moving average quarterly percentage change between financial quarters. PPI Index is the producer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics.

Payment can be made at any of the following South Burnett Regional Council Offices:

- 69 Hart Street, Blackbutt, 4314;
- 45 Glendon Street, Kingaroy, 4610;
- 42 Stephens Street West, Murgon, 4605;
- 48 Drayton Street, Nanango, 4615;
- McKenzie Street, Wondai, 4606; or
- via other methods identified on the Itemised Breakdown.

**Enquiries**

Enquiries regarding this Infrastructure Charges Notice should be directed to the SOUTH BURNETT REGIONAL COUNCIL, Department of Finance & Liveability, during office hours, Monday to Friday by phoning (07) 4189 9100 or email at info@sbrc.qld.gov.au




## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | |
|---|---|
| Battery Type | JINKO JKE-5015K-2H-LAA |
| **Power Convertion Group 1 - 10: MV Twin Skid Ingeteam** | |
| Inverters | 2 x INGECON SUN STORAGE 3930TL HV C630 |
| PCS | 1 x INGECON 7860 FSK HV C Series |
| Battery Capacity | 5.015 MWh |
| Capacity per PCS | 2 containers per PCS x 5.015 = 10.03 MWh |
| TOTALS | |
| Battery Containers | 20 |
| Total Capacity | 20 x 5.015 MWh = 100.3 MWh |
| ACmax @30°C | 58.92 MVA |

| Voltage Level | Frequency | PF |
|---|---|---|
| 22 kV | 50 Hz | |

Metlen Energy & Metals

**MYTILINEOS RSD TECHNICAL & PROCUREMENT DPT**

Tower Four, Level 17,
727 Collins St,
Docklands
VIC 3008, Australia

| Version | Date | Revised By | Reviewed By | Approved By | Description and Notes |
|---|---|---|---|---|---|
| r01 | 21.11.2024 | I.AVG | T.KAR | M.VAS | Battery Container changed to Jinko |
| r00 | 14.05.2024 | S.KAN | T.KAR | M.VAS | BESS Preliminary Layout |

Project Name:
Kingaroy BESS,
South Burnett, Australia

PRELIMINARY

Drawing Name:
BESS Overall Site Plan

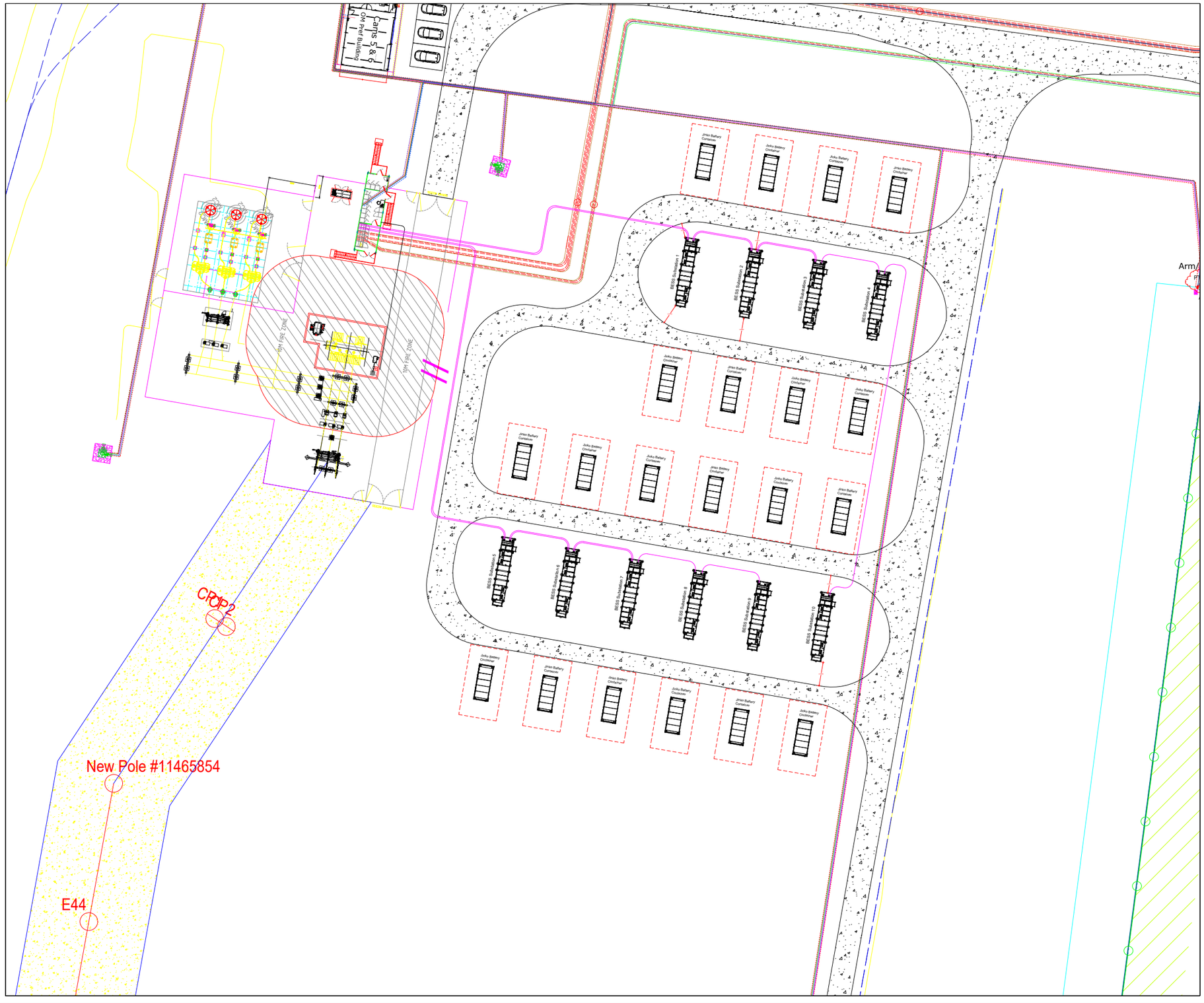
Drawing Revision
r01

Scale:
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Drawing Number:
AUS-KNG(BESS)-006-11

Date:
28.11.2024

Sheet No:
2/2




## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | | |
|---|---|---|
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| **Power Convertion Group 1 - 10: MV Twin Skid Ingeteam** | | |
| Inverters | 2 x INGECON SUN STORAGE 3930TL HV C630 | |
| PCS | 1 x INGECON 7860 FSK HV C Series | |
| Battery Capacity | 5.015 MWh | |
| Capacity per PCS | 2 containers per PCS x 5.015 = 10.03 MWh | |
| TOTALS | | |
| Battery Containers | 20 | |
| Total Capacity | 20 x 5.015 MWh = 100.3 MWh | |
| ACmax @30$^0$C | 58.92 MVA | |
| Voltage Level | Frequency | PF |
| 22 kV | 50 Hz | |

Metlen Energy & Metals

**MYTILINEOS RSD TECHNICAL & PROCUREMENT DPT**

Tower Four, Level 17,
727 Collins St,
Docklands
VIC 3008, Australia

| Version | Date | Revised By | Reviewed By | Approved By | Description and Notes |
|---|---|---|---|---|---|
| r01 | 21.11.2024 | I.AVG | T.KAR | M.VAS | Battery Container changed to Jinko |
| r00 | 14.05.2024 | S.KAN | T.KAR | M.VAS | BESS Preliminary Layout |

Project Name:
Kingaroy BESS,
South Burnett, Australia

PRELIMINARY

Drawing Name:
BESS Layout

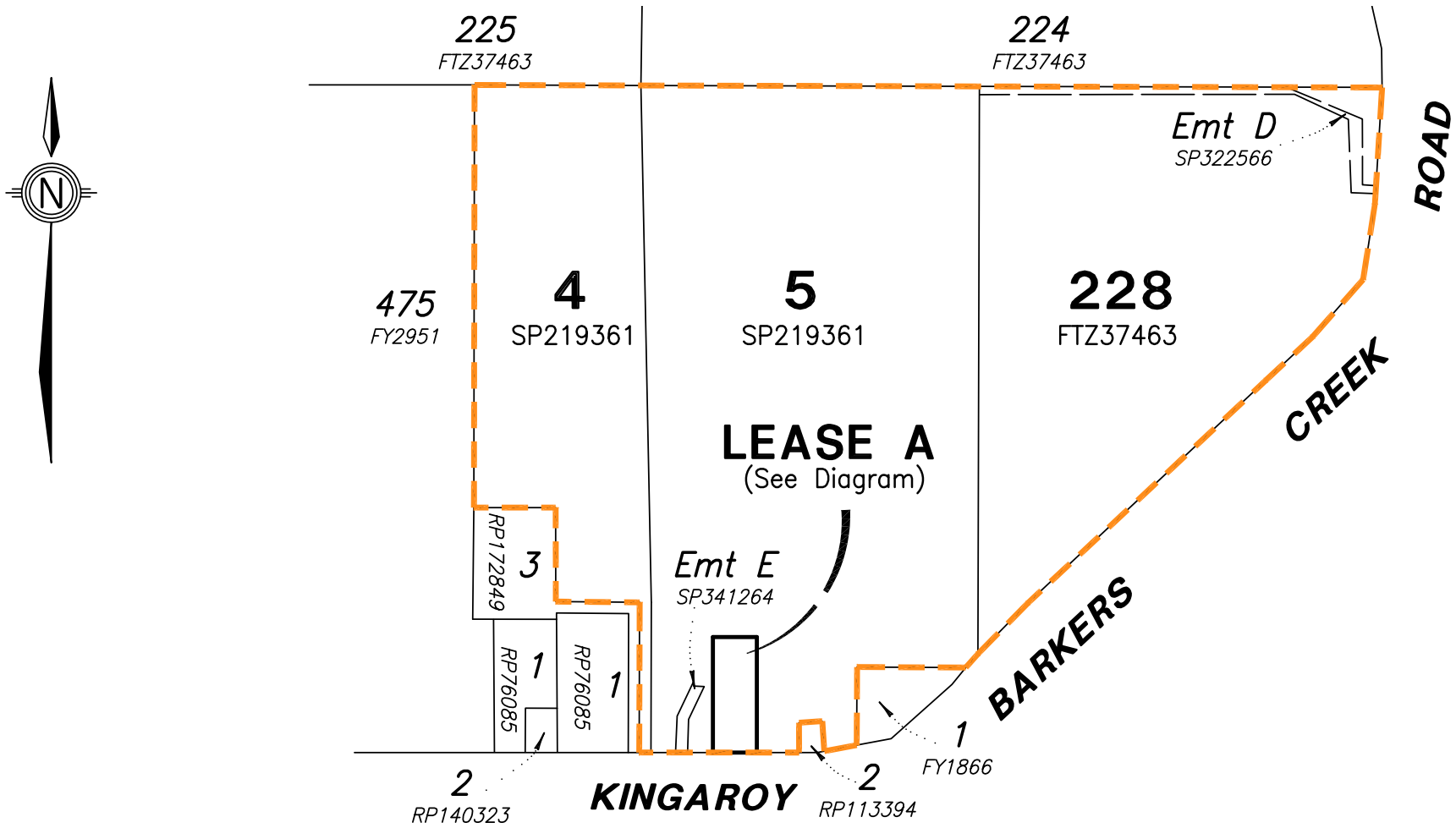
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AUS-KNG(BESS)-006-11

Drawing Revision
r01

Date:
28.11.2024

Sheet No:
1/2

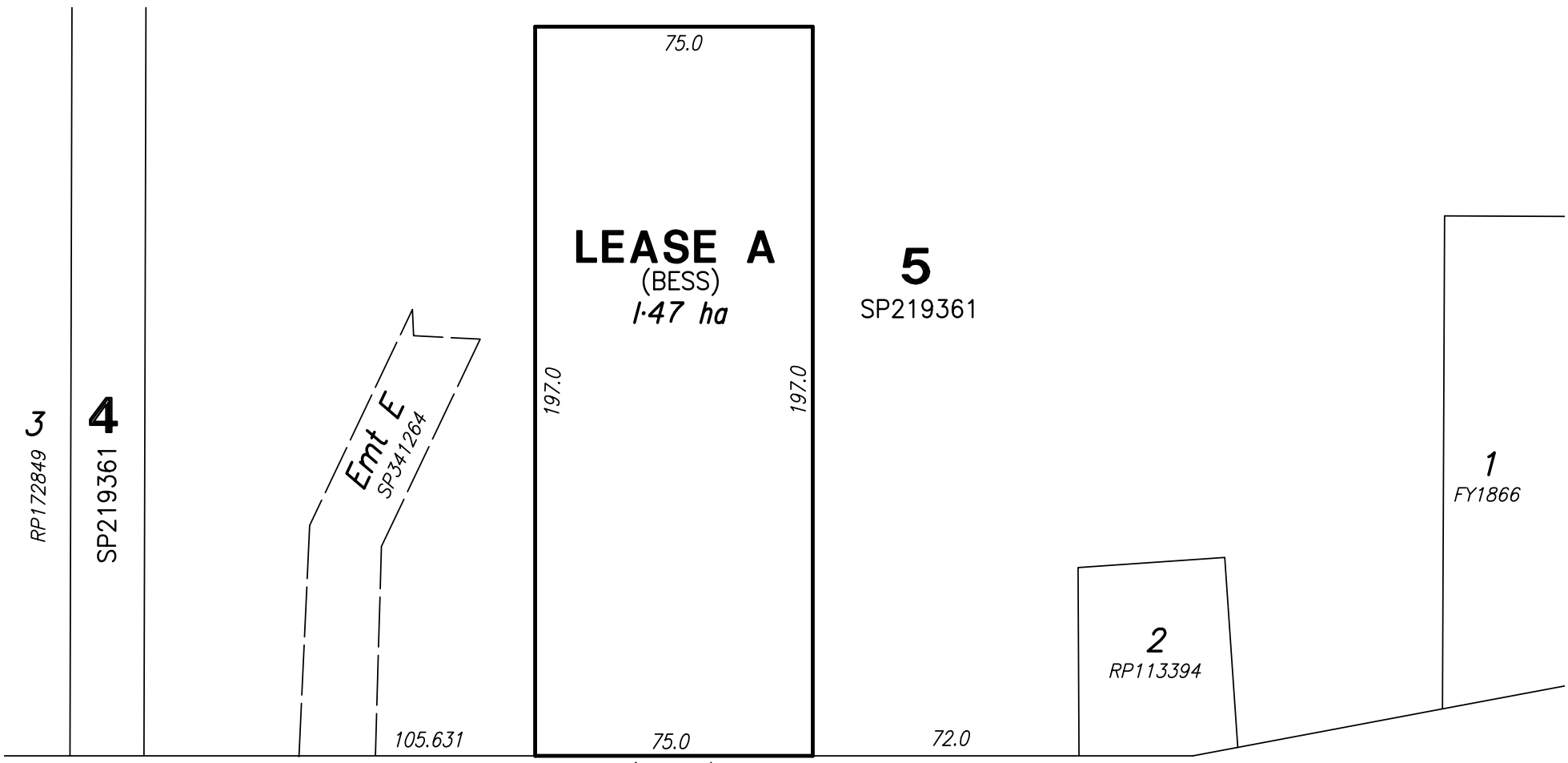



EXTENT OF SCHEME LAND

100 0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400m

## DIAGRAM

*Scale 1 : 1500*




## KINGAROY BARKERS CREEK ROAD

Note
The boundaries shown on this plan depict a conceptual layout only and should not be used for final detailed engineers design.

All dimensions and areas are approximate only, and are subject to survey and Council approval.

Dimensions have been rounded to the nearest 0.1 metres.

20 0 20 40 60 80 100 120 140 160 180 200 220m

| | | | |
|---|---|---|---|
| PROJECT **PROPOSED LEASE** | | CLIENT **M RENEWABLES AUSTRALIA DEVELOPMENTS PTY LTD** | |
| Job Ref TLX15510 | Date 3-Mar-25 | *KINGAROY SOLAR FARM BESS PROPOSED BESS LEASE* | RPS AAP Consulting Pty Ltd<br>ACN 117 883 173<br>ABN 97 117 883 173<br>Level 8<br>31 Duncan Street<br>PO Box 1559<br>Fortitude Valley QLD 4006<br>T +61 7 3539 9500<br>W rpsgroup.com |
| Level Datum | Comp By GBF | | A TETRA TECH COMPANY |
| Origin | Checked By - | | ©COPYRIGHT PROTECTS THIS PLAN Unauthorised reproduction or amendment not permitted. Please contact the author. |
| | Dwg Name TLX15510-1-LEASE | | |
| | Locality KINGAROY | Local Authority SOUTH BURNETT REGIONAL COUNCIL | Scale 1:10000 · Sheet A3 · Plan Ref **TLX15510-1** · Rev |

420 Flinders Street, Townsville QLD 4810
PO Box 1090, Townsville QLD 4810
ergon.com.au

29 October 2025

Chief Executive Officer
South Burnett Regional Council

*Attention: David Hursthouse*
*Via email: info@southburnett.qld.gov.au*

cc M Renewables Australia Developments Pty Ltd
c/- RPS AAP Consulting Pty Ltd

*Attention: Stewart Owen*
*Via email: Stewart.Owen@rpsconsulting.com*

Dear Sir/Madam,

**Ergon Advice Agency Response**
**Our Ref: ECM 28291878 - 28349538**

This Referral Agency response is given under section 56 of the *Planning Act 2016.*

| **Response** | |
|---|---|
| Outcome | Approved in full – No objection |
| Referral assessment capacity | Advice |
| Matters referral assessment made against (S55(2)) | The purpose of the *Electricity Act 1994* and *Electricity Safety Act* 2002 |
| Reasons for decision (S56(7)(b)) | The works do not conflict with:<br>▪ the objectives set out within Part 2, Section 3 of the Electricity Act 1994<br>▪ the purpose of the Electricity Safety Act 2002 as set out within Part 1 Division 2 Section 4 & 5. |

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

| | |
|---|---|
| | The works do not adversely impact on the safe, efficient, and economically viable operation of the supply network. |

| **Development Details** | |
|---|---|
| Applicant | M Renewables Australia Developments Pty Ltd c/- RPS AAP Consulting Pty Ltd |
| Assessment Manager | South Burnett Regional Council |
| Council Application No. | MCU25/0025 |
| Street Address | 397 Kingaroy Barkers Creek Road, Kingaroy |
| RPD | Pt A Lot 5 SP219361 |
| Development Type | Material Change of Use (Development Permit) – Undefined Use (BESS)<br>Reconfiguration of a Lot (Development Permit) – Lease exceeding 10 years |
| Referral Trigger | ☒ Schedule 10, Part 9, Division 2, Table 1, Item 1 (10.9.2.1.1) – Reconfiguring a lot subject to an easement for the benefit of a distribution entity under the Electricity Act for a supply network.<br>☒ Schedule 10, Part 9, Division 2, Table 2, Item 1 (10.9.2.2.1) – Material Change of use of premises subject to an easement for the benefit of a distribution entity under the Electricity Act and the easement is for a supply network. |
| Impacted Electrical Infrastructure | Easement E on SP341264 (Overhead 33kV Feeder) |

Ergon provides the following response to the application in accordance with Section 56(1) of the *Planning Act 2016:*

| **Component of Development** | **Advice Agency direction** |
|---|---|
| MCU & ROL | ☒ S56(1)(b)(i) – approval subject to stated development conditions |

In accordance with Section 56(1)(b)(i) should the Assessment Manager decide to approve the proposed Development Application, as an Advice Agency, Ergon requires that the assessment manager impose the below conditions. These conditions have been imposed in response to the matters prescribed under Section 55 (2) of the *Planning Act 2016.*

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

| ***Table 1*** | | | |
|---|---|---|---|
| ***Plans forming part of this Approval*** | | | |
| ***Title*** | ***Plan No.*** | ***Issue*** | ***Date*** |
| *BESS Overall Site Plan* | *AUS-KNG(BESS)-006-11* | *R01* | *28/11/2024* |
| *BESS Layout* | *AUS-KNG(BESS)-006-11* | *R01* | *28/11/2024* |
| *TLX15510-1-Lease* | *TLX15510-1* | *-* | *03/03/2025* |

| **Table 2** | | |
|---|---|---|
| **Documents forming part of this Approval** | | |
| *Plan Name* | *Document No* | *Date* |
| *Stormwater Management Plan Kingaroy Battery Energy Storage System (BESS) Project* | *24-0270.R3694 Version B* | *31.01.2025* |

| **Table 3** | | | |
|---|---|---|---|
| Condition | | Timing | Purpose/Reason |
| 1 | Carry out the approved development generally in accordance with the approved plans and documents outlined within Table 1 and 2 of this approval and the following:<br>▪ The specifications, facts and circumstances as set out in the development application submitted to Ergon; and<br>▪ Where a discrepancy or conflict exists between the written conditions of the approval and the approved plans, the requirements of the written conditions prevail | At all times | To ensure the development is carried out generally in accordance with the plans of development submitted within the application |
| 2 | Any alterations to the plans and document(s) identified within Table 1 and 2 of this response are to be resubmitted to Ergon for comment. | At all times | To ensure the development is carried out generally in accordance with the plans of development |

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

| | | | |
|---|---|---|---|
| | | | submitted within the application |
| 3 | The installation of stormwater infrastructure within Easement E on SP341264, as outlined within the approved stormwater management plan listed in table 2 of this approval is supported in principle.<br><br>Submit to Ergon for review and approval detailed civil design plans for works proposed within Easement E on SP341264.<br><br>*Note –*<br>*The detailed design of stormwater infrastructure is to have regard to the requirements detailed within Ergon's conditions package*. | Prior to the commencement of works within Easement E on SP341264. | To ensure the continued safe and efficient operation of the Electricity network. |
| 4 | Stormwater management works are to ensure Easement E on SP341264 is left free from the pooling of water. | At all times | To ensure the continued safe and efficient operation of the Electricity network |
| 5 | Change in ground levels within Easement E on SP341264 are not approved.<br><br>Submit to Ergon for review and approval detailed civil design plans relevant to proposed ground level changes within Easement E on SP341264. | | |
| 6 | No excavation works are approved within 5 metres of any supply network pole or stay.<br><br>Note - Changes in ground levels within proximity to an electricity pole or stay has the potential to alter the structural integrity of the structure. Where changes in ground levels are proposed within 5 meters of an Ergon structure or within an electricity easement submit detailed civil design plans to Energex/ Ergon for review and | At all times unless otherwise approved by Ergon | To ensure the continued safe and efficient operation of the Electricity network |

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

Ergon Energy Corporation Limited ABN 50 087 646 062

| | | | |
|---|---|---|---|
| | approval prior to the commencement of works. | | |
| 7 | 10 metres clear access must be provided around all poles and stays after the completion of works to ensure maintenance access to infrastructure. Finished surface levels within the maintenance zone are not to exceed a grade of 1 in 5.5 or non-worsening of existing established grades.<br><br>*Note -*<br>*Access to areas adjoining electrical infrastructure may be restricted for extended periods of time during network inspections, maintenance and or construction works.* | At all times | To ensure the continued safe and efficient operation of the Electricity network |
| 8 | Existing access tracks are to be re-instated or repaired where they are damaged due to construction or other activities. The following minimum access standards are to be met where reinstatement is required:<br>• a minimum width of 4 metres<br>minimum vertical clearance of 5 metres (i.e. vegetation overhand / structure clearance)<br>• Designed to accommodate the manoeuvring of a heavy vehicle (HV) with a maximum allowable RGVM of 36 Tonnes (6T Steer axle / 17T rear axles)<br>• Maximum access grade of 15%<br>• Graded to be free from the pooling of water. | At all times | To ensure the continued safe and efficient operation of the Electricity network |
| 9 | Access to and along Easement E on SP341264 must be made available to Ergon personnel and heavy equipment for construction, maintenance and emergency purposes. | At all times | To ensure the continued safe and efficient operation of the Electricity network |

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

Ergon Energy Corporation Limited ABN 50 087 646 062

| | | | |
|---|---|---|---|
| | Where fencing prohibits access to and through Easement E on SP341264 the developer is to install gates which comply with or are comparable in nature to Ergon's standard gate detail (Ref. LOSSTD -CV019-07, Version A1). To enable travel along the easement at any time the gates must be series locked with an Energex/ Ergon padlock.<br><br>*Note -*<br>*Both a padlock and design drawing (Ref. LOSSTD -CV019-07, Version A1) will be made available by Ergon upon request. An alternative access arrangement (i.e. locking system) may be considered where deemed acceptable by Ergon's Asset management team.*<br><br>*No structures or associated foundations are approved within Easement E on SP341264.* | | |
| 10 | Services located within Easement E on SP341264 are to be designed to comply with the following:<br><br>• services are to be aligned to the outer extremity of the easement;<br>• where services cross the easement, they are to be done so at 90 degrees to the overhead conductor(s);<br>• services are not to be located within 10 metres of a pole or stay;<br>• services are not to be located within 10 metres of a pole base or stay;<br>• services are to be designed and constructed to support the movements of a 36 tonne vehicle;<br>• service alignments crossing the easement are to be clearly marked. | At all times | To ensure the continued safe and efficient operation of the Electricity network. |

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

| | | | |
|---|---|---|---|
| | Submit to Ergon for final review and approval detailed civil design plans detailing all proposed service alignments relevant to Easement E on SP341264. | Prior to the commencement of works | |
| 11 | No landscaping works are approved within Easement E on SP341264. | At all times | To ensure the continued safe and efficient operation of the Electricity network |

Ergon notes that Easement E on SP341264 contains both overhead and underground electrical infrastructure. The overhead infrastructure transitions to underground cables south of Pole No. 11465854. Any changes in ground levels will need to demonstrate compliance with statutory design clearances for overhead infrastructure and minimum cover requirements and acceptable derating tolerances for underground infrastructure.

General Advice:

- Compliance with the Electrical Safety Act 2002, including any Code of Practice under the Act and the Electrical safety Regulation 2013 including any safety exclusion zones defined in the Regulation is mandatory

  Should any doubt exist in maintaining the prescribed clearance to the overhead conductors and electrical infrastructure then the applicant is obliged under the Act to seek advice from Ergon.

- Any costs incurred by Ergon because of the works on the easement are to be met by the property Developer / owner.

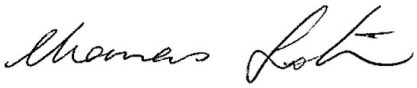
- This response does not constitute an approval to commence any works within the easement. Consent to commence works relevant to the conditions of the easement is required. All works on easement (including but not limited to earthworks, drainage and detention basins, road construction, underground and overhead services installation) require detailed submissions, assessment, and consent (or otherwise) by Ergon.

- All works proposed to be undertaken in close proximity to overhead or underground electrical lines are to be undertaken in accordance with Ergons' Works Practice Manual WP1323. This document refers to various standards, guidelines, calculations, legal requirements, technical details, and other information relevant to working near high voltage infrastructure. A copy of WP1323 can be found online via Ergon's document library (Document library | Ergon).

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

Should you require any further information on the above matter, please contact Tom Sexton on 0429 443 778 or via email at townplanning@ergon.com.au.

Yours faithfully,



Tom Sexton
Town Planner

**Have you seen our fact sheets?**
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

Ergon Energy Corporation Limited ABN 50 087 646 062

DELIVERING FOR QUEENSLAND | Queensland Government

Department of
State Development,
Infrastructure and Planning

SARA reference: 2510-48781 SRA
Council reference: MCU25/0025
Applicant reference: 15510

25 November 2025

Chief Executive Officer
South Burnett Regional Council
PO Box 336
KINGAROY QLD 4610
info@sbrc.qld.gov.au

Attention: David Hursthouse

Dear Mr Hursthouse,

# SARA Referral Agency Response—397 Kingaroy Barkers Creek Road, Kingaroy

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the State Assessment and Referral Agency (SARA) on 21 October 2025.

## Response

| | |
|---|---|
| Outcome: | Referral agency response – with conditions |
| Date of response: | 25 November 2025 |
| Conditions: | The conditions in **Attachment 1** must be attached to any development approval |
| Advice: | Advice to the applicant is in **Attachment 2** |
| Reasons: | The reasons for the referral agency response are in **Attachment 3** |

## Development details

| | |
|---|---|
| Description: | Development Permit for Material Change of use undefined use – Battery energy storage facility<br><br>Development Permit for Development Permit for Reconfiguring a lot – access easement and lease exceeding 10 years |



Wide Bay Burnett regional office
Level 1, 7 Takalvan Street, Bundaberg
PO Box 979, Bundaberg QLD 4670

| | |
|---|---|
| SARA role: | Referral agency |
| SARA trigger: | • Schedule 10, Part 9, Division 4, Subdivision 2, Table 1, Item 1 (10.9.4.2.1.1) – Reconfiguring a lot near a state transport corridor (Planning Regulation 2017)<br>• Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 1 (10.9.4.2.4.1) – Material change of use of premises near a state transport corridor (Planning Regulation 2017) |
| SARA reference: | 2510-48781 SRA |
| Assessment manager: | South Burnett Regional Council |
| Street address: | 397 Kingaroy Barkers Creek Road, Kingaroy |
| Real property description: | Lot 5 on SP219361 |
| Applicant name: | M Renewables Australia Developments Pty Ltd<br>C/- RPS AAP Consulting Pty Ltd |
| Applicant contact details: | PO BOX 1559<br>Fortitude Valley QLD 4006<br>stewart.owen@rpsconsulting.com |
| *Human Rights Act 2019* considerations: | A consideration of the 23 fundamental human rights protected under the *Human Rights Act 2019* has been undertaken as part of this decision. It has been determined that this decision does not limit human rights. |

## Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules). Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Faith Duffy, A/Senior Planning Officer, on (07) 3882 8464 or via email WBBSARA@dsdilgp.qld.gov.au who will be pleased to assist.

Yours sincerely



Luke Lankowski
Manager, Planning Services

cc M Renewables Australia Developments Pty Ltd, stewart.owen@rpsconsulting.com

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 - Representations about a referral agency response provisions
Attachment 5 - Documents referenced in conditions

2510-48781 SRA

## Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the documents referenced below are found at Attachment 5)

| No. | Conditions | Condition timing |
|---|---|---|
| **Material change of use** | | |
| 10.9.4.2.4.1 – Material change of use of premises near a state transport corridor—The chief executive administering the *Planning Act 2016* nominates the Director-General of the Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s): | | |
| 1. | a) Prepare a Construction Management Plan (CMP) by a suitably qualified person who has professional qualifications, training, skills and / or experience relevant to area of expertise (construction and environmental management). The CMP must:<br>i) demonstrate that there will be no disruption to the Kingaroy Barkers Creek Road during the course of construction.<br>ii) demonstrate that any oversize vehicles entering the site do not pose a risk to other vehicles as they turn in.<br>iii) include pre-construction pavement assessment. A post-construction report will also be required.<br>iv) demonstrate that sediment control measures used will prevent sediment leaving the site during construction.<br>v) provide a list of sizes, type and number of vehicles using the site during the construction period.<br>b) Submit the CMP required in part (a) of this condition to the Wide Bay Burnett District Office via email to WBB.IDAS@tmr.qld.gov.au within the Department of Transport and Main Roads.<br>c) Carry out the construction of the development in accordance with the CMP. | (a) and (b) Prior to obtaining development approval for building work or operational work, whichever occurs first.<br>(c) At all times during the construction of the development. |
| 2. | a) Carry out the stormwater management of the development generally in accordance with the Stormwater Management Plan prepared by Topo dated 31-1-2025, reference 24-0270/R3694, revision B.<br>b) Submit RPEQ certification with supporting documentation to the Wide Bay Burnett District Office via email to WBB.IDAS@tmr.qld.gov.au within the Department of Transport and Main Roads, confirming that the development has been constructed in accordance with part (a) of this condition. | (a) At all times.<br>(b) Within 20 business days of the completion of works. |

## Attachment 2—Advice to the applicant

| | |
|---|---|
| **General advice** | |
| 1. | Terms and phrases used in this document are defined in the *Planning Act 2016*, its regulation or the State Development Assessment Provisions (SDAP) (version 3.3). If a word remains undefined it has its ordinary meaning. |
| **Use of B-double and other over mass vehicles** | |
| 2. | The Department of Transport and Main Roads have advised that Kingaroy Barkers Creek Road past the site is a general access road. That is, heavy vehicle combinations that exceed general access specifications are not permitted to use general access roads without prior approval from the National Heavy Vehicle Regulator (NHVR).<br><br>Please be aware that a response given by the SARA under the *Planning Act 2016* does not constitute an approval for certain vehicles to use the Kingaroy Barkers Creek Road on an as-of-right basis.<br><br>Such matters fall under the jurisdiction under the NHVR and are assessed on a case-by-case basis to ensure the safety and efficiency of the State-controlled road is not compromised. For further information about this matter, please visit the NHVR website at www.nhvr.gov.au. |

## Attachment 3—Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

**The reasons for the SARA's decision are:**

- The proposed development complies with the outcomes sought by State code 1: Development in a state-controlled road environment.
- The development is not anticipated to impact the safety or efficiency of the State-controlled road.

**Material used in the assessment of the application:**

- the development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- the SDAP (version 3.3), as published by SARA
- the Development Assessment Rules
- SARA DA Mapping system
- section 58 of the *Human Rights Act 2019*

## Attachment 4—Representations about a referral agency response provisions

(page left intentionally blank)

## Attachment 5—Documents referenced in conditions

(page left intentionally blank)

# Development Assessment Rules—Representations about a referral agency response

The following provisions are those set out in sections 28 and 30 of the Development Assessment Rules[1] regarding **representations about a referral agency response**

## Part 6: Changes to the application and referral agency responses

### 28 Concurrence agency changes its response or gives a late response

28.1. Despite part 2, a concurrence agency may, after its referral agency assessment period and any further period agreed ends, change its referral agency response or give a late referral agency response before the application is decided, subject to section 28.2 and 28.3.

28.2. A concurrence agency may change its referral agency response at any time before the application is decided if—

(a) the change is in response to a change which the assessment manager is satisfied is a change under section 26.1; or

(b) the Minister has given the concurrence agency a direction under section 99 of the Act; or

(c) the applicant has given written agreement to the change to the referral agency response.[2]

28.3. A concurrence agency may give a late referral agency response before the application is decided, if the applicant has given written agreement to the late referral agency response.

28.4. If a concurrence agency proposes to change its referral agency response under section 28.2(a), the concurrence agency must—

(a) give notice of its intention to change its referral agency response to the assessment manager and a copy to the applicant within 5 days of receiving notice of the change under section 25.1; and

(b) the concurrence agency has 10 days from the day of giving notice under paragraph (a), or a further period agreed between the applicant and the concurrence agency, to give an amended referral agency response to the assessment manager and a copy to the applicant.

1 Pursuant to Section 68 of the *Planning Act 2016*

2 In the instance an applicant has made representations to the concurrence agency under section 30, and the concurrence agency agrees to make the change included in the representations, section 28.2(c) is taken to have been satisfied.

# Part 7: Miscellaneous

### 30 Representations about a referral agency response

30.1. An applicant may make representations to a concurrence agency at any time before the application is decided, about changing a matter in the referral agency response.[3]

[3] An applicant may elect, under section 32, to stop the assessment manager's decision period in which to take this action. If a concurrence agency wishes to amend their response in relation to representations made under this section, they must do so in accordance with section 28.

**To:** Chief Executive Officer
South Burnett Regional Council

**Re:** Properly Made Submission – Development Application MCU25/0025
**Site:** 397 Kingaroy Barkers Creek Road, Kingaroy
**Proposal:** Material Change of Use (Undefined Use – Battery Energy Storage System), Reconfiguring a Lot, Lease Exceeding 10 Years

---

**1. Submitter Details and Standing**

I am the owner and occupier of [redacted]
My property is lawfully used for **agricultural purposes, specifically year-round cattle grazing**.

This submission is made during the public notification period and constitutes a **properly made submission** under the *Planning Act 2016*.

The impacts identified below **cannot be adequately avoided or mitigated through conditions of approval and therefore constitute a fundamental land-use conflict**.

---

**2. Overview of Objection**

I object to Development Application MCU25/0025 on the grounds that the proposal:

- Conflicts with the **intent and outcomes of the South Burnett Regional Planning Scheme**, particularly those relating to rural land use, agricultural protection, and amenity;
- Represents an **incompatible and high-risk industrial use** adjoining active agricultural land;
- Fails to adequately address **noise, risk, hazard, emergency management, livestock welfare, and rural traffic impacts**;
- Fails to adequately consider **cumulative impacts** when combined with existing and approved energy infrastructure in the locality;
- Relies on assumptions, future management measures, and conditions rather than demonstrating compliance with applicable assessment benchmarks.

For these reasons, the application should be **refused**.

---

**3. Conflict with Zone Intent and Rural Land Use Outcomes**

The South Burnett Regional Planning Scheme seeks to:

- Protect agricultural land and existing rural uses;
- Avoid encroachment by incompatible non-rural development;
- Maintain rural amenity and the operational viability of agricultural enterprises.

The proposed “Undefined Use” is, in substance, **industrial-scale energy infrastructure**, including battery containers, inverters, transformers, security fencing, lighting, and 24-hour operational capability.

This form of development:

- Is not rural or agricultural in nature;
- Introduces industrial activity into an agricultural setting;
- Is incompatible with the reasonable expectations of adjoining rural landholders engaged in primary production.

Accordingly, the proposal conflicts with the **overall outcomes and intent of the applicable zone code**, which prioritises agricultural use and protection from incompatible development.

---

**4. Amenity and Noise Impacts on Year-Round Cattle Grazing**

Cattle graze **year-round** on my property. Livestock are continuously exposed to the receiving environment and cannot be relocated or shielded from impacts.

The Planning Scheme requires development to protect amenity and avoid unreasonable environmental impacts, including noise.

The submitted **Noise Impact Assessment (Appendix G)** is inadequately justified and has fundamental weaknesses, including:

- The assessment applies noise criteria based primarily on **human dwelling receivers**, which does not appropriately address **extended rural exposure** or **livestock sensitivity** to continuous, tonal, and low-frequency noise.
- It does not demonstrate compliance at **property boundaries or within active grazing areas**, and fails to provide comprehensive noise contour mapping for all affected agricultural land.
- Worst-case operating scenarios (including night-time operation, temperature inversion conditions, and still wind conditions) are not robustly demonstrated.
- Tonal and low-frequency noise characteristics associated with inverters, transformers, and cooling systems are not adequately assessed, despite being recognised sources of livestock disturbance.
- Cumulative noise impacts associated with existing and approved energy infrastructure in the locality are not adequately considered.

Noise impacts on livestock are a legitimate planning consideration in rural areas and directly affect animal welfare, behaviour, and productivity. These impacts have not been properly assessed or mitigated.

---

**5. Risk, Hazard and Livestock Welfare**

Battery Energy Storage Systems present well-documented risks, including:

- Thermal runaway;
- Fire and explosion;
- Toxic smoke and airborne contaminants;
- Extended emergency incidents requiring exclusion zones.

These risks are fundamentally **incompatible with adjoining agricultural land** where cattle graze continuously and **cannot be practically evacuated** during an incident.

The submitted **Risk and Hazard Assessment (Appendix H)** is deficient because:

- It relies on **generic risk matrices** rather than site-specific modelling of worst-case thermal runaway, smoke dispersion, and failure scenarios.
- It does not demonstrate that local emergency services have the capacity to safely respond to a BESS fire event in a rural setting with limited access and water supply.
- It fails to adequately assess the **consequences to livestock and agricultural operations**, despite their continuous presence adjacent to the site.
- It does not demonstrate appropriate **separation distances or buffers** to adjoining grazing land.
- The proposal fails to demonstrate that **livestock welfare obligations and duty-of-care principles** associated with adjoining agricultural land have been appropriately considered.

The proposal therefore fails to meet Planning Scheme expectations relating to risk avoidance and land use compatibility.

---

**6. Bushfire and Emergency Management**

The subject land and surrounding area are rural in nature and subject to bushfire risk, longer emergency response times, and constrained access.

The combination of:

- High-energy electrical infrastructure,
- Rural vegetation,
- Adjoining agricultural land with livestock,

creates an **unacceptable compound risk**.

The application does not demonstrate:

- Safe and effective emergency response arrangements;
- How adjoining landholders and livestock would be protected during a fire or hazardous incident;
- That the proposal will not increase risk to surrounding rural land uses.

**7. Traffic and Construction Impacts on Agricultural Operations**

The Planning Scheme requires transport impacts to be managed so that rural road safety is maintained and existing lawful uses are not adversely affected.

The **Traffic Impact Assessment (Appendix E)** is inadequate because:

- It does not address impacts on **agricultural vehicle movements**, including farm machinery and livestock transport.
- It does not assess risks associated with **slow-moving agricultural equipment** interacting with construction and operational traffic.
- It does not adequately justify the suitability of rural roads for heavy vehicle movements associated with construction and maintenance.
- It fails to address safety impacts at local rural intersections and property access points.

These deficiencies present unacceptable risks to agricultural operations and rural road users.

---

**8. Planning Scheme Code Response Deficiencies**

The **Planning Scheme Code Responses (Appendix I)** are insufficient because:

- They rely on generalised statements rather than detailed demonstration of compliance with applicable performance outcomes;
- They do not adequately address land use compatibility with adjoining agricultural land;
- They fail to meaningfully consider impacts on livestock, rural amenity, emergency management, and long-term agricultural viability.

---

**9. Over-Reliance on Conditions and Future Management**

The application relies heavily on future management plans and conditions to address key impacts.

The Planning Scheme requires that development **demonstrate compliance at the application stage**, particularly for high-risk and incompatible uses.

Conditions cannot remedy fundamental land-use conflicts or unresolved risk and amenity impacts.

---

**10. Request for Independent Peer Review**

Given the scale and nature of the proposal, I formally request that Council require:

- An **independent peer review of the Noise Impact Assessment**, including specific consideration of livestock impacts;

- An **independent fire and hazard risk assessment** for BESS infrastructure in a rural agricultural context;
- Further assessment of land use compatibility with adjoining grazing land.

---

**11. Conclusion**

For the reasons outlined above, the proposed development results in **unacceptable impacts that conflict with the South Burnett Regional Planning Scheme and cannot be resolved through conditions of approval**.

The proposal is incompatible with adjoining year-round cattle grazing, introduces unacceptable amenity, safety, and risk impacts, and fails to demonstrate compliance with applicable assessment benchmarks.

Accordingly, I respectfully request that **Development Application MCU25/0025 be refused**.

Should Council be minded to approve the application, I request that this submission be fully considered and that my rights be preserved.

---

**Yours faithfully,**

Michael Ott

16/1/26

SOUTH BURNETT REGIONAL COUNCIL

**CEO APPROVED FORM:** 3047594
**Version 2 – June 2023**
**Liveability – Environment & Planning**

# Public Submission

**PRIVACY COLLECTION NOTICE:** South Burnett Regional Council collects your personal information for the purpose of processing this form and for use in any Council matters. Your personal information is handled in accordance with the *Information Privacy Act 2009* and will only be disclosed to a third party as per the South Burnett Regional Council Information Privacy Policy. **A hard copy of the electronic document is considered uncontrolled when printed.**

This form has been provided to assist in lodging a submission with respect to a development application. The *Planning Act 2016* (Qld) states that only a 'properly made submission's will be considered. A 'properly made submission' **MUST: -**

- Be signed by each person (the submission makers) making the submission;
- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | Carleigh Hansen |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 6/2/2026 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
    We would like to refute this statement as currently, a constant "hum" emitted from the substation at the Solar Farm is audible from our premises and surrounds. This humming changes in intensity depending on climatic conditions, the time of day or night and prevailing wind direction. If the BESS were to be constructed, then there would likely be additional audible noise being emitted, particularly at night.

  - Page 14, 5.2 "Noise Impacts" **- "the proposed BESS will achieve compliance at all times <u>on the condition</u> that the inverters run at maximum 50% load during night time hours"** based on SLR Consulting's assessment methodology.
    Obviously, an inverter is designed to operate at 100%, and it will during the day and early evening. What level of noise will be emitted when the inverters run at the higher percentage and who / what will monitor the noise output?

  - Page 14 5.2 "Noise Impacts" **– "Five (5) sensitive uses were noted around the existing Solar Farm and proposed BESS location"** We would like to suggest that either M Renewables Australia Developments or SLR Consulting have not done due diligence in identifying the number of close residences to the proposed site. Local knowledge identifies that there are at least 10 residences (all occupied with families) within a 1kilometre radius or closer to the site. All will have to deal with the effects of emitted noise.

  - Page 13 figure 8 – Does not accurately reflect all the close residences. Some not identified on the plan, can certainly hear the 'humming' emitted from the Solar Farm now, so we suggest that we are also likely to be 'sensitive receivers' for additional noise emitted from the proposed BESS. Why have not all residents been identified as "sensitive receivers"?

- **Noise and Amenity Impacts During Construction**
  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
    We object to the start time of 6:00am every morning, six days a week for up to six months.

Most of the residents in close proximity are older and retired or have young families and will not appreciate being woken early, to construction noise, six days a week. Ultimately this affects our physical and mental health and well-being . We don't see anywhere that this has been taken into consideration.

- During the construction of the solar farm, we were forced to endure noise from the constant movement of heavy machinery, beeping of reversing machinery & trucks and sonic noise and vibrations from compacting rollers. All of this occurred around the substation area. Some of us even experienced vibrations to our roofs and windows. We do not want a recurrence of this cumulative noise pushing us to the limits of maintaining our mental health and wellbeing.
- As 'sensitive receivers' who spend a lot of our recreational time outdoors in our gardens and amenities, we will be exposed to constant construction noise. Our pets too, have displayed signs of severe stress when exposed to loud machinery movements and beepings. The enjoyment of our amenities will be reduced and with no recompense or consideration from the BESS construction and management Company.

- **Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy**

  - We have concerns that the volume of water and the rate of discharge of water onto Kingaroy Barkers Creek Road outside the solar farm will increase with the construction of the BESS, making flooding worse across the floodway.

    - The majority of us have lived here for over forty years and have local knowledge of the results of storms and rain events. We have noticed that there has been an increased flow and volume of floodwater across the floodway since the construction of the solar farm. Historically, we were always able to use the road, travelling east as an access out after storms or rain events. Now since the solar farm construction, water across the floodway rises quickly, cutting off the road. It is extremely dangerous as cars travelling west towards town come around the corner and unexpectantly hit the water filling the floodway or need to turn around and find an alternate way to town.
      Attached are photos from two rain events since the building of the solar farm showing flooding of the floodway to the extent that we had not seen prior to its construction.

    - The Town Planning Report, p 15, 5.4 Flood and Stormwater states that the BESS footprint is within a Council's flagged flood overlay area. It assumes that because the area has been previously cleared and levelled to accommodate the solar farm and its infrastructure, that no further adverse flood impacts will occur. We all remember the damage caused by storm rain of 80mm over two consecutive days in Nov 2023 when water broke through the Solar Farm's boundary fence on the western side, eroding soil, uprooting the recently planted trees and dumping plastic corflutes and wooden stakes through cultivation and along the watercourse on Kingaroy Barkers Creek Road.
      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

    - On the roadway inside the solar farm property, there is a large sign warning:
      "Road Subject To Flooding.
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      This is in the proposed site and place where the BESS will be constructed.







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Outside Kingaroy Solar Farm. 35mm had fallen the previous day.







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Outside Solar Farm. 0.4m of water across floodway.
Main streets of Kingaroy flooded. (Photos taken from gateway at 367 K'roy Barkers Crk Rd.)

We refute The Proponent's statement that The Storm Management Plan has identified that no adverse impacts are anticipated. (*Town Planning Report, p15, 5.4)*

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        - It is reassuring that the Council requires a pre-lodgement advice in the form of a Preliminary Hazard Analysis. "Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community." (opening section of Executive Summary p1). This infers that there may be potential for hazards and risks to the general community from a failure with the BESS.
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          Riskcon Engineering's conclusion states: "The project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site." It then goes on with eight recommendations to be met. This offers us no reassurance at all. What is meant by "Potentially Hazardous?"

        - It is alarming that there is no comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government & Planning and hence a risk assessment approach published by NSW Dept of Planning, Housing & Infrastructure has to be used for their report.

        - Sensitive Receptors – Appendix H, p7 figure 3-4 (attached)
          The Sensitive Receptor Diagram indicates the close neighbourhood residences plus the township of Kingaroy to the west of the solar farm could be affected. However, Riskcon has determined that there is "no significant intensification of population around the proposed site," hence the residents near the BESS site and Kingaroy have not been considered in the hazard assessment.

        - Potential release of toxic flammable gas or battery explosion

- **Recycling and End of Life Management**

Referring to Document 3 ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

- Operational Life p 11, 4.1.2
  No details re decommissioning, recycling and disposal of components of the BESS have been provided, nor with whom the responsibility lies.
  "the site will be decommissioned and returned to its pre-development state"

During and after the construction of the solar farm, we (sensitive receivers) had many negative dealings with various personnel from Mytilineous, the company responsible for the solar farm. Changes that were promised and ways to deal with our concerns were not dealt with to our satisfaction. We believe M Renewables Australia Developments Pty Ltd and Metlan are part of this larger company. It is unfortunate that we already distrust the integrity of the company and it will continue to be a concern unless the social and industrial impacts for 'sensitive receivers' are addressed.

Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

Yours Faithfully, The Attached Submitters using the Public Submission form

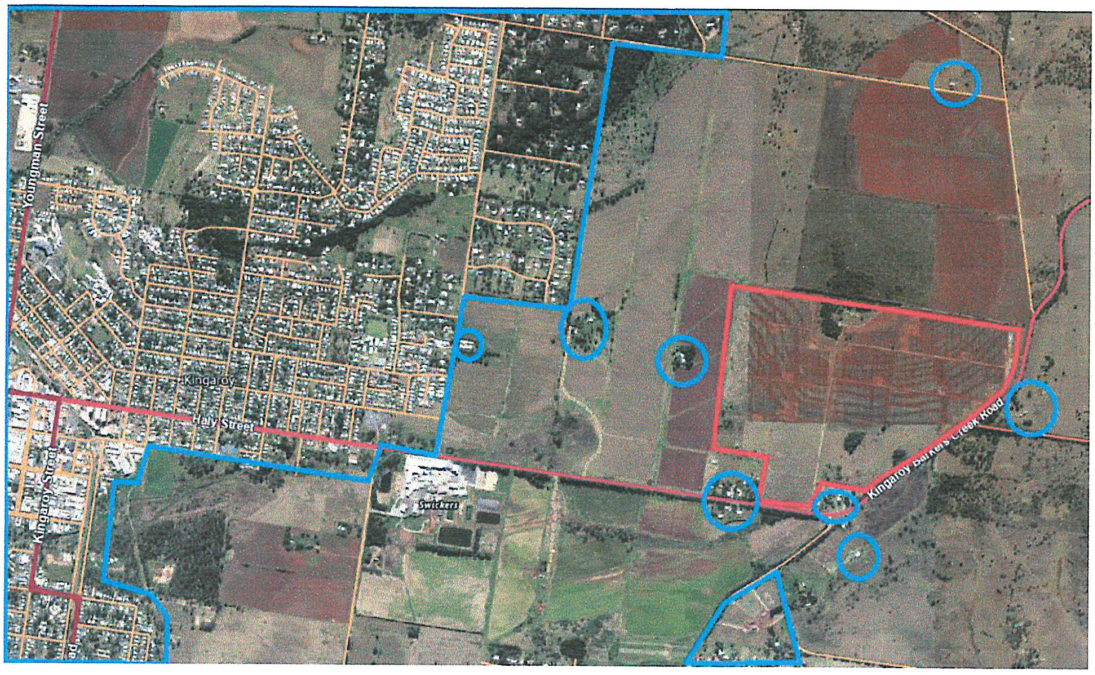



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

The containers conform to IEC 62619, IEC 62477-1, IEC 61000, UL 1973, UL 9540A, NFPA 855, and UN 38.3 standards in addition to others (**Appendix B**) which govern the safety and performance of the included batteries. This includes the installation of an active fire protection system using both gas and water within each container (**Appendix B**).

## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
|---|---|---|---|
| BESS | 9 | Lithium Batteries | 804 t |
| Transformer oil | C1 | Combustible liquid | 30 kL |

SOUTH BURNETT REGIONAL COUNCIL

**CEO APPROVED FORM: 3047594**
**Version 2 – June 2023**
**Liveability – Environment & Planning**

# Public Submission

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- Be signed by each person (the submission makers) making the submission;
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| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | CLIFF & GLADY HOOD |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 5/2/26 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
    We would like to refute this statement as currently, a constant "hum" emitted from the substation at the Solar Farm is audible from our premises and surrounds. This humming changes in intensity depending on climatic conditions, the time of day or night and prevailing wind direction. If the BESS were to be constructed, then there would likely be additional audible noise being emitted, particularly at night.

  - Page 14, 5.2 "Noise Impacts" **- "the proposed BESS will achieve compliance at all times <u>on the condition</u> that the inverters run at maximum 50% load during night time hours"** based on SLR Consulting's assessment methodology.
    Obviously, an inverter is designed to operate at 100%, and it will during the day and early evening. What level of noise will be emitted when the inverters run at the higher percentage and who / what will monitor the noise output?

  - Page 14 5.2 "Noise Impacts" **– "Five (5) sensitive uses were noted around the existing Solar Farm and proposed BESS location"** We would like to suggest that either M Renewables Australia Developments or SLR Consulting have not done due diligence in identifying the number of close residences to the proposed site. Local knowledge identifies that there are at least 10 residences (all occupied with families) within a 1kilometre radius or closer to the site. All will have to deal with the effects of emitted noise.

  - Page 13 figure 8 – Does not accurately reflect all the close residences. Some not identified on the plan, can certainly hear the 'humming' emitted from the Solar Farm now, so we suggest that we are also likely to be 'sensitive receivers' for additional noise emitted from the proposed BESS. Why have not all residents been identified as "sensitive receivers"?

- **Noise and Amenity Impacts During Construction**
  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
    We object to the start time of 6:00am every morning, six days a week for up to six months.

Most of the residents in close proximity are older and retired or have young families and will not appreciate being woken early, to construction noise, six days a week. Ultimately this affects our physical and mental health and well-being . We don't see anywhere that this has been taken into consideration.

- During the construction of the solar farm, we were forced to endure noise from the constant movement of heavy machinery, beeping of reversing machinery & trucks and sonic noise and vibrations from compacting rollers. All of this occurred around the substation area. Some of us even experienced vibrations to our roofs and windows. We do not want a recurrence of this cumulative noise pushing us to the limits of maintaining our mental health and wellbeing.
- As 'sensitive receivers' who spend a lot of our recreational time outdoors in our gardens and amenities, we will be exposed to constant construction noise. Our pets too, have displayed signs of severe stress when exposed to loud machinery movements and beepings. The enjoyment of our amenities will be reduced and with no recompense or consideration from the BESS construction and management Company.

- **Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy**

  - We have concerns that the volume of water and the rate of discharge of water onto Kingaroy Barkers Creek Road outside the solar farm will increase with the construction of the BESS, making flooding worse across the floodway.

    - The majority of us have lived here for over forty years and have local knowledge of the results of storms and rain events. We have noticed that there has been an increased flow and volume of floodwater across the floodway since the construction of the solar farm. Historically, we were always able to use the road, travelling east as an access out after storms or rain events. Now since the solar farm construction, water across the floodway rises quickly, cutting off the road. It is extremely dangerous as cars travelling west towards town come around the corner and unexpectantly hit the water filling the floodway or need to turn around and find an alternate way to town.
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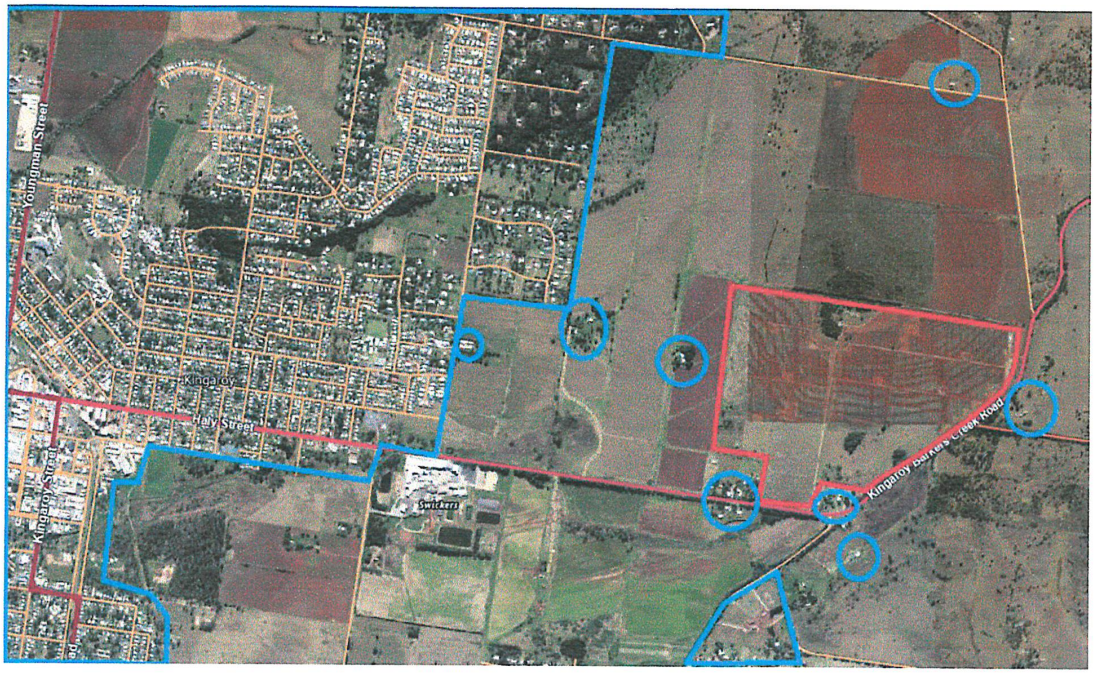



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

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## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

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**Version 2 – June 2023**
**Liveability – Environment & Planning**

# Public Submission

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| **Section 1 – Application details** | |
|---|---|
| Proposal description | Submission against – MCU25/0025 - 397 Kingaroy Barkers Creek Road KINGARC |
| Applicant/s full name | M Renewables Australia Developments Pty Ltd |
| Application number | MCU25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road KINGAROY |

**Section 2 – Grounds for submission (Attach more pages if required)**

Grounds for submission are detailed in the attached letter and summarised as follows;

The proposed BESS is incompatible with the existing rural character of the area and will adversely impact residential amenity and nearby property values.

Cumulative construction impacts, including noise, dust, traffic disruption and extended construction periods, particularly given prior impacts from the existing solar farm.

Operational noise impacts from battery infrastructure (cooling systems, inverters and transformers) which are likely

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | |
| [redacted] | |
| | |
| | |
| Date | |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

**Public Submission – Objection**

**Application No:** MCU25/0025
**Proposed Development:** Battery Energy Storage System (BESS)
**Location:** 397 Kingaroy Barkers Creek Road, QLD
**Submitter Address:** [redacted], within 1 km of the proposed BESS

I am writing to formally lodge a submission **objecting** to Development Application MCU25/0025 for the proposed Battery Energy Storage System (BESS) at 397 Kingaroy Barkers Creek Road.

I reside at [redacted], located within approximately 1 kilometre of the proposed battery storage facility. I am also a local civil engineer with first-hand professional experience in the planning, construction, and operation of infrastructure projects similar to this nature. While I am not opposed to battery energy storage in principle, I am of the view that this site and its immediate surroundings are not suitable for this type of development due to the cumulative and site-specific impacts outlined below.

---

**1. Impact on Rural Character and Property Values**

The subject area is characterised by a rural and semi-rural landscape, which is a key factor underpinning both amenity and residential property values in the locality.

The introduction of large-scale battery infrastructure—including containerised units, concrete hardstands, security fencing, lighting, and associated plant—will materially alter the existing rural aesthetic. This represents an intensification of industrial infrastructure beyond what residents reasonably expected when the original solar farm was approved.

The change in visual character, combined with perceived safety and amenity concerns associated with battery storage, is likely to have a negative impact on nearby residential property values, including my own.

---

**2. Construction Impacts and Ongoing Disturbance**

Residents have already experienced extended construction impacts associated with the existing solar farm, including noise, dust, and traffic disruption.

The proposed BESS will introduce additional construction periods, further extending disruption to nearby residents. Concerns include:Q

- Construction noise outside normal residential expectations
- Heavy vehicle movements on local rural roads
- Construction timing and lack of adequate notice to residents

Given the cumulative nature of development at this site, construction impacts can no longer be viewed in isolation.

---

**3. Noise Impacts During Operation**

Battery storage facilities generate **ongoing operational noise**, including from:

- Cooling systems
- Inverters
- Transformers

While these systems may comply with nominal noise limits on paper, **low-frequency and tonal noise** can still be perceptible over long distances, particularly in quiet rural environments and during night-time hours.

This has the potential to **unreasonably impact residential amenity**, especially given the proximity of dwellings within 1 km of the site.

---

**4. Electromagnetic Fields (EMF) and Community Concern**

Although regulatory guidance may indicate that EMF emissions are "within acceptable limits," there remains **community concern and uncertainty** regarding the **long-term health impacts** of prolonged exposure to EMF from large-scale battery installations.

At a minimum, the application has not adequately demonstrated:

- Clear EMF modelling at nearby residences
- Consideration of cumulative EMF impacts from existing solar infrastructure

This lack of clarity contributes to reasonable concern for residents living in close proximity.

---

**5. Construction Traffic and Road Safety**

The local road network, including **Kingaroy Barkers Creek Road**, has already been significantly impacted during the construction of the solar farm.

Additional construction traffic associated with the battery storage will:

- Increase heavy vehicle movements
- Exacerbate safety risks for local residents and road users
- Further degrade rural road conditions not designed for sustained industrial traffic

This impact is particularly concerning given the cumulative nature of development at the site.

---

**6. Stormwater Management and Flooding Impacts**

There are **existing stormwater and flooding issues** in the area, including flooding impacts along **Kingaroy Barkers Creek Road**, which it is obvious - were exacerbated by the construction of the solar farm.

The proposed BESS will introduce:

- Additional **impervious surfaces**, including concrete slabs and access roads
- Further modification of site drainage patterns

Based on my professional experience, this development is likely to **worsen downstream stormwater impacts** unless significant mitigation measures are implemented. The current Stormwater Management Proposal (SWMP) does not provide sufficient confidence that:

- Pre-development flow regimes will be maintained
- Flooding risks will not increase for downstream properties and roads

---

**7. Site Suitability and Cumulative Impact**

While battery storage plays an important role in energy infrastructure, **site selection is critical**.

Given:

- Proximity to residential dwellings
- Existing cumulative impacts from the solar farm
- Known stormwater and flooding constraints
- Amenity, noise, traffic, and visual impacts

This location is **not suitable** for the proposed BESS development.

---

**Conclusion**

For the reasons outlined above, I respectfully submit that Development Application **MCU25/0025 should be refused**, or at the very least subject to significantly more rigorous assessment and community consultation.

This submission is made in good faith by a local resident and engineer with practical experience in similar developments, and reflects genuine concerns about the long-term impacts on amenity, safety, infrastructure, and property values in the area.



concerned resident and property owner.

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Attachments provided

☑ More pages attached

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|---|---|
| Submitter/s name/s | HELEN WAKEHAM, BELINDA WILSON and LISA MILES |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 06/02/2026 |

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Public Submission Form

Page 1 of 1

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

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- **Noise and Amenity Impacts During Construction**
  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
    We object to the start time of 6:00am every morning, six days a week for up to six months.

Most of the residents in close proximity are older and retired or have young families and will not appreciate being woken early, to construction noise, six days a week. Ultimately this affects our physical and mental health and well-being . We don't see anywhere that this has been taken into consideration.

- During the construction of the solar farm, we were forced to endure noise from the constant movement of heavy machinery, beeping of reversing machinery & trucks and sonic noise and vibrations from compacting rollers. All of this occurred around the substation area. Some of us even experienced vibrations to our roofs and windows. We do not want a recurrence of this cumulative noise pushing us to the limits of maintaining our mental health and wellbeing.
- As 'sensitive receivers' who spend a lot of our recreational time outdoors in our gardens and amenities, we will be exposed to constant construction noise. Our pets too, have displayed signs of severe stress when exposed to loud machinery movements and beepings. The enjoyment of our amenities will be reduced and with no recompense or consideration from the BESS construction and management Company.

- **Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy**

  - We have concerns that the volume of water and the rate of discharge of water onto Kingaroy Barkers Creek Road outside the solar farm will increase with the construction of the BESS, making flooding worse across the floodway.

    - The majority of us have lived here for over forty years and have local knowledge of the results of storms and rain events. We have noticed that there has been an increased flow and volume of floodwater across the floodway since the construction of the solar farm. Historically, we were always able to use the road, travelling east as an access out after storms or rain events. Now since the solar farm construction, water across the floodway rises quickly, cutting off the road. It is extremely dangerous as cars travelling west towards town come around the corner and unexpectantly hit the water filling the floodway or need to turn around and find an alternate way to town.
      Attached are photos from two rain events since the building of the solar farm showing flooding of the floodway to the extent that we had not seen prior to its construction.

    - The Town Planning Report, p 15, 5.4 Flood and Stormwater states that the BESS footprint is within a Council's flagged flood overlay area. It assumes that because the area has been previously cleared and levelled to accommodate the solar farm and its infrastructure, that no further adverse flood impacts will occur. We all remember the damage caused by storm rain of 80mm over two consecutive days in Nov 2023 when water broke through the Solar Farm's boundary fence on the western side, eroding soil, uprooting the recently planted trees and dumping plastic corflutes and wooden stakes through cultivation and along the watercourse on Kingaroy Barkers Creek Road.
      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

    - On the roadway inside the solar farm property, there is a large sign warning:
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28.11.2023 after 45mm storm rain. Kingaroy Barkers Creek Road - Eas
Outside Kingaroy Solar Farm. 35mm had fallen the previous day.







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Outside Solar Farm. 0.4m of water across floodway.
Main streets of Kingaroy flooded. (Photos taken from gateway at 367 K'roy Barkers Crk Rd.)

We refute The Proponent's statement that The Storm Management Plan has identified that no adverse impacts are anticipated. (*Town Planning Report, p15, 5.4)*

- **Potential for Hazards: Impacts from Fire / Toxic Gas dispersion / Battery Faults, Rupture / Equipment Failure**
    - With reference to Appendix H, "Risk Hazard Assessment" of the Town Planning Report, prepared by Riskcon Engineering
        - It is reassuring that the Council requires a pre-lodgement advice in the form of a Preliminary Hazard Analysis. "Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community." (opening section of Executive Summary p1). This infers that there may be potential for hazards and risks to the general community from a failure with the BESS.
          The lodging of the Risk Hazard Assessment has not allayed our concerns for potential mishaps or failures of equipment.
          Riskcon Engineering's conclusion states: "The project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site." It then goes on with eight recommendations to be met. This offers us no reassurance at all. What is meant by "Potentially Hazardous?"

        - It is alarming that there is no comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government & Planning and hence a risk assessment approach published by NSW Dept of Planning, Housing & Infrastructure has to be used for their report.

        - Sensitive Receptors – Appendix H, p7 figure 3-4 (attached)
          The Sensitive Receptor Diagram indicates the close neighbourhood residences plus the township of Kingaroy to the west of the solar farm could be affected. However, Riskcon has determined that there is "no significant intensification of population around the proposed site," hence the residents near the BESS site and Kingaroy have not been considered in the hazard assessment.

        - Potential release of toxic flammable gas or battery explosion

- **Recycling and End of Life Management**

Referring to Document 3 ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

- Operational Life p 11, 4.1.2
  No details re decommissioning, recycling and disposal of components of the BESS have been provided, nor with whom the responsibility lies.
  "the site will be decommissioned and returned to its pre-development state"

During and after the construction of the solar farm, we (sensitive receivers) had many negative dealings with various personnel from Mytilineous, the company responsible for the solar farm. Changes that were promised and ways to deal with our concerns were not dealt with to our satisfaction. We believe M Renewables Australia Developments Pty Ltd and Metlan are part of this larger company. It is unfortunate that we already distrust the integrity of the company and it will continue to be a concern unless the social and industrial impacts for 'sensitive receivers' are addressed.

Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

Yours Faithfully, The Attached Submitters using the Public Submission form

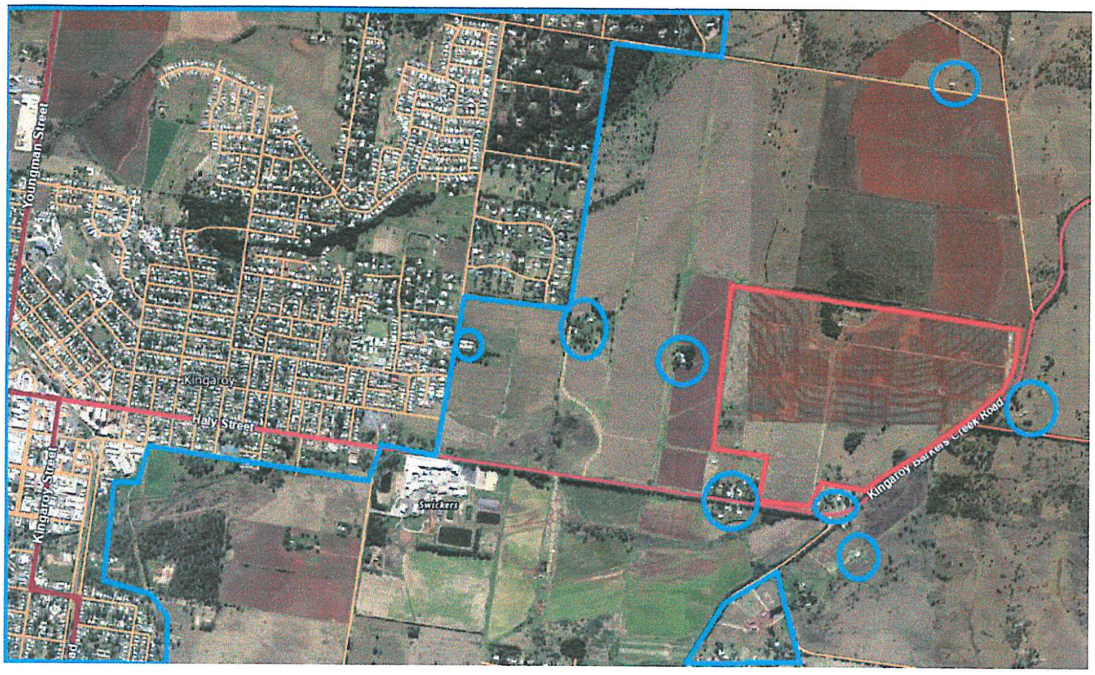



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

The containers conform to IEC 62619, IEC 62477-1, IEC 61000, UL 1973, UL 9540A, NFPA 855, and UN 38.3 standards in addition to others (**Appendix B**) which govern the safety and performance of the included batteries. This includes the installation of an active fire protection system using both gas and water within each container (**Appendix B**).

## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
|---|---|---|---|
| BESS | 9 | Lithium Batteries | 804 t |
| Transformer oil | C1 | Combustible liquid | 30 kL |

SOUTH BURNETT REGIONAL COUNCIL

CEO APPROVED FORM: 3047594
Version 2 – June 2023
Liveability – Environment & Planning

# Public Submission

**PRIVACY COLLECTION NOTICE:** South Burnett Regional Council collects your personal information for the purpose of processing this form and for use in any Council matters. Your personal information is handled in accordance with the *Information Privacy Act 2009* and will only be disclosed to a third party as per the South Burnett Regional Council Information Privacy Policy. **A hard copy of the electronic document is considered uncontrolled when printed.**

This form has been provided to assist in lodging a submission with respect to a development application. The *Planning Act 2016* (Qld) states that only a 'properly made submission's will be considered. A 'properly made submission' **MUST: -**

- Be signed by each person (the submission makers) making the submission;
- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | Jessica Hansen |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 5th Feb 2026. |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
    We would like to refute this statement as currently, a constant "hum" emitted from the substation at the Solar Farm is audible from our premises and surrounds. This humming changes in intensity depending on climatic conditions, the time of day or night and prevailing wind direction. If the BESS were to be constructed, then there would likely be additional audible noise being emitted, particularly at night.

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- **Noise and Amenity Impacts During Construction**
  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
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Most of the residents in close proximity are older and retired or have young families and will not appreciate being woken early, to construction noise, six days a week. Ultimately this affects our physical and mental health and well-being . We don't see anywhere that this has been taken into consideration.

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      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

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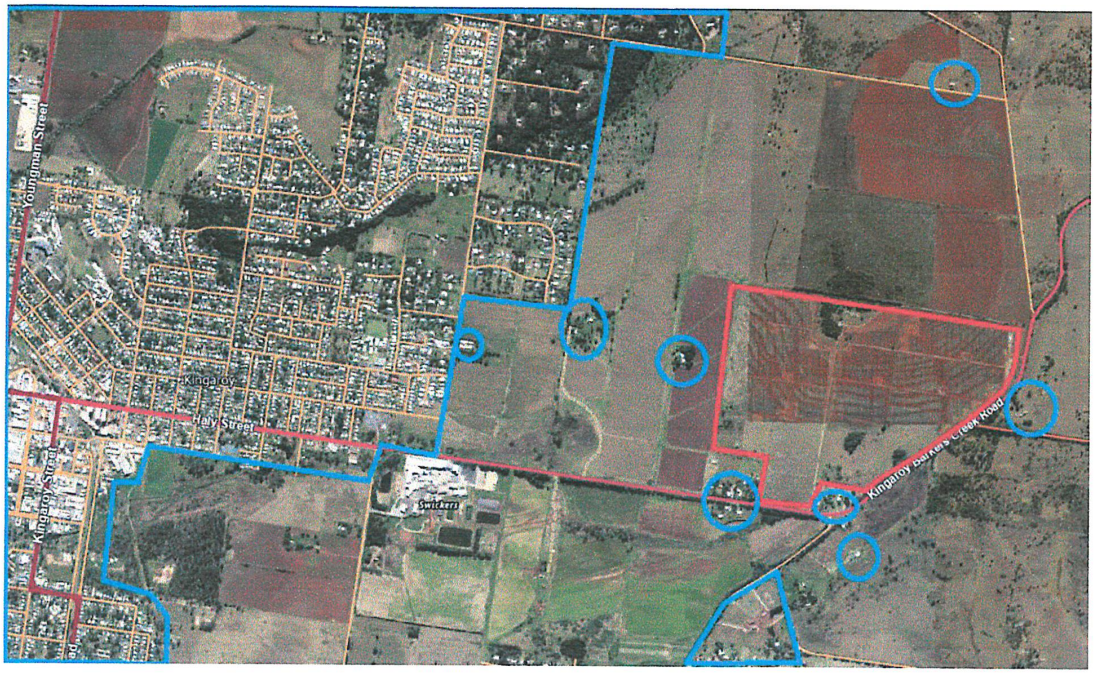



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

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The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

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SOUTH BURNETT REGIONAL COUNCIL

CEO APPROVED FORM: 3047594
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# Public Submission

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| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

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Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | JOHN & DENISE O'NEILL |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 5th February 2026 |

Note: Submissions are not confidential and may be made available through the public scrutiny process

Public Submission Form

Page 1 of 1

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

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      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

    - On the roadway inside the solar farm property, there is a large sign warning:
      "Road Subject To Flooding.
      Indicators Show Depth"
      This is in the proposed site and place where the BESS will be constructed.







28.11.2023 after 45mm storm rain. Kingaroy Barkers Creek Road - Eas
Outside Kingaroy Solar Farm. 35mm had fallen the previous day.







30.12.2024 after 126mm rain (storm) Kingaroy Barkers Creek Road - East
Outside Solar Farm. 0.4m of water across floodway.
Main streets of Kingaroy flooded. (Photos taken from gateway at 367 K'roy Barkers Crk Rd.)

We refute The Proponent's statement that The Storm Management Plan has identified that no adverse impacts are anticipated. (*Town Planning Report, p15, 5.4)*

- **Potential for Hazards: Impacts from Fire / Toxic Gas dispersion / Battery Faults, Rupture / Equipment Failure**
    - With reference to Appendix H, "Risk Hazard Assessment" of the Town Planning Report, prepared by Riskcon Engineering
        - It is reassuring that the Council requires a pre-lodgement advice in the form of a Preliminary Hazard Analysis. "Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community." (opening section of Executive Summary p1). This infers that there may be potential for hazards and risks to the general community from a failure with the BESS.
          The lodging of the Risk Hazard Assessment has not allayed our concerns for potential mishaps or failures of equipment.
          Riskcon Engineering's conclusion states: "The project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site." It then goes on with eight recommendations to be met. This offers us no reassurance at all. What is meant by "Potentially Hazardous?"

        - It is alarming that there is no comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government & Planning and hence a risk assessment approach published by NSW Dept of Planning, Housing & Infrastructure has to be used for their report.

        - Sensitive Receptors – Appendix H, p7 figure 3-4 (attached)
          The Sensitive Receptor Diagram indicates the close neighbourhood residences plus the township of Kingaroy to the west of the solar farm could be affected. However, Riskcon has determined that there is "no significant intensification of population around the proposed site," hence the residents near the BESS site and Kingaroy have not been considered in the hazard assessment.

        - Potential release of toxic flammable gas or battery explosion

- **Recycling and End of Life Management**

Referring to Document 3 ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

- Operational Life p 11, 4.1.2
  No details re decommissioning, recycling and disposal of components of the BESS have been provided, nor with whom the responsibility lies.
  "the site will be decommissioned and returned to its pre-development state"

During and after the construction of the solar farm, we (sensitive receivers) had many negative dealings with various personnel from Mytilineous, the company responsible for the solar farm. Changes that were promised and ways to deal with our concerns were not dealt with to our satisfaction. We believe M Renewables Australia Developments Pty Ltd and Metlan are part of this larger company. It is unfortunate that we already distrust the integrity of the company and it will continue to be a concern unless the social and industrial impacts for 'sensitive receivers' are addressed.

Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

Yours Faithfully, The Attached Submitters using the Public Submission form

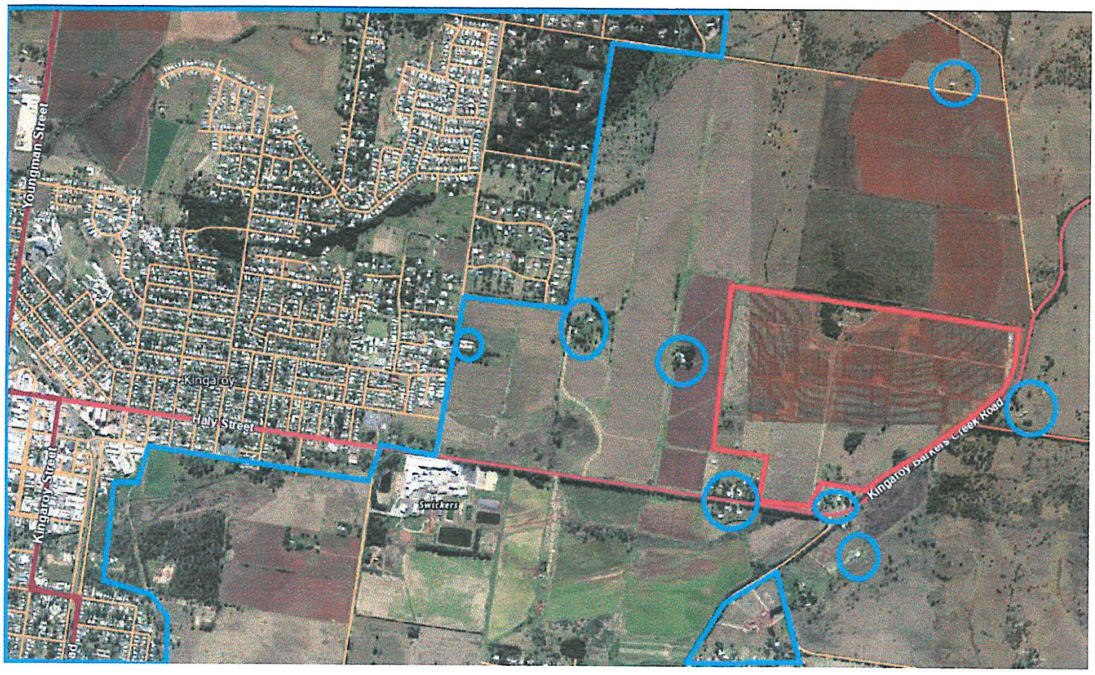



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

The containers conform to IEC 62619, IEC 62477-1, IEC 61000, UL 1973, UL 9540A, NFPA 855, and UN 38.3 standards in addition to others (**Appendix B**) which govern the safety and performance of the included batteries. This includes the installation of an active fire protection system using both gas and water within each container (**Appendix B**).

## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
|---|---|---|---|
| BESS | 9 | Lithium Batteries | 804 t |
| Transformer oil | C1 | Combustible liquid | 30 kL |

SOUTH BURNETT REGIONAL COUNCIL

**CEO APPROVED FORM:** 3047594
**Version 2 – June 2023**
**Liveability – Environment & Planning**

# Public Submission

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- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Material Change of Use Battery Energy Storage System (BESS) |
| Applicant/s full name | Stewart Owen (M. Renewables Aust. Dev. P/L) |
| Application number | 15510 |
| Address of application | PO Box 1559 Fortitude Valley QLD 4006 |

**Section 2 – Grounds for submission** (Attach more pages if required)

See Attachments (6 pages)

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | JONATHAN HOLDEN |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 8th Feb. 2026 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

Public Submission Form

Page 1 of 1

8th February 2026

# PUBLIC SUBMISSION

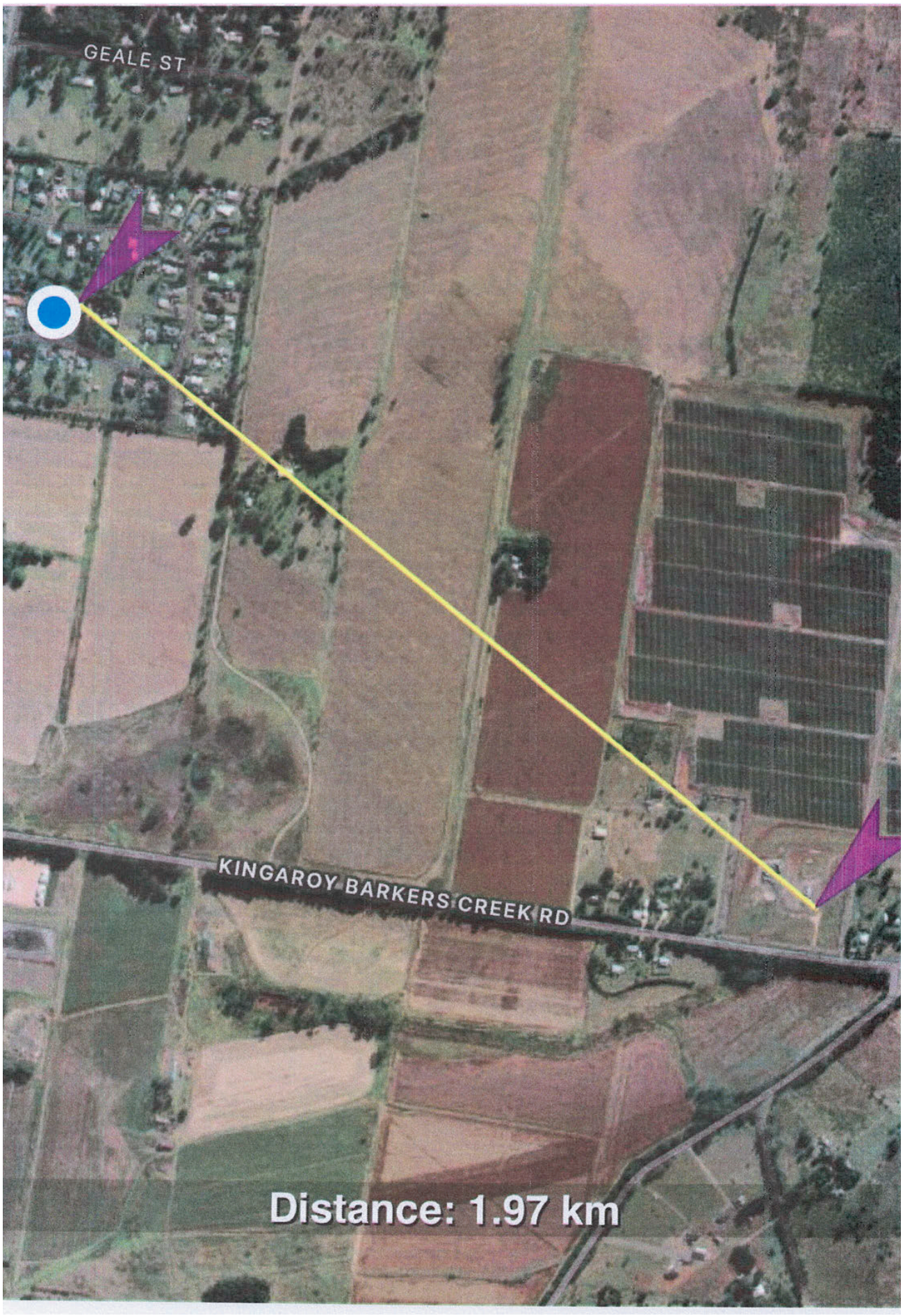
## APPLICATION: MCU 25/0025

SECTION 2 – GROUNDS FOR SUBMISSION

1. The proposed location for the Battery Energy Storage System (BESS) is less than two kilometres in a South-easterly direction **from my place of residence.**
2. The prevailing wind direction for Kingaroy is from a *South-easterly direction*.
3. The BESS poses a **hazardous smoke threat** to the residents of Kingaroy should a fire emerge from the proposed battery storage facility.
4. I would approve the installation of the battery storage facility on the proposed easement ON THE CONDITION that a smoke suppression water-spray system be installed near the BESS, with a capacity to prevent smoke drifting towards the township area.
5. The smoke suppression system will need to be located in a place where it would not be in danger of fire damage emanating from the BESS.
6. Water storage will need to be sufficient to ensure that **all** storage batteries would be be fully consumed by fire and/or chemical reaction before exhaustion of the water supply.
7. I believe that this request is NOT unreasonable given that smoke from a burning lithium storage battery facility IS TOXIC and that lithium type battery storage facilities **have ignited in the past** with devastating results to the environment.
8. May I remind the Council that it is their responsibility to ensure that the citizens of the South Burnett Regional Council should expect protection from such an event as a toxic smoke hazard, **even if statistically**, it is deemed unlikely to occur. The fact remains; lithium battery fires CAN HAPPEN and DO HAPPEN.

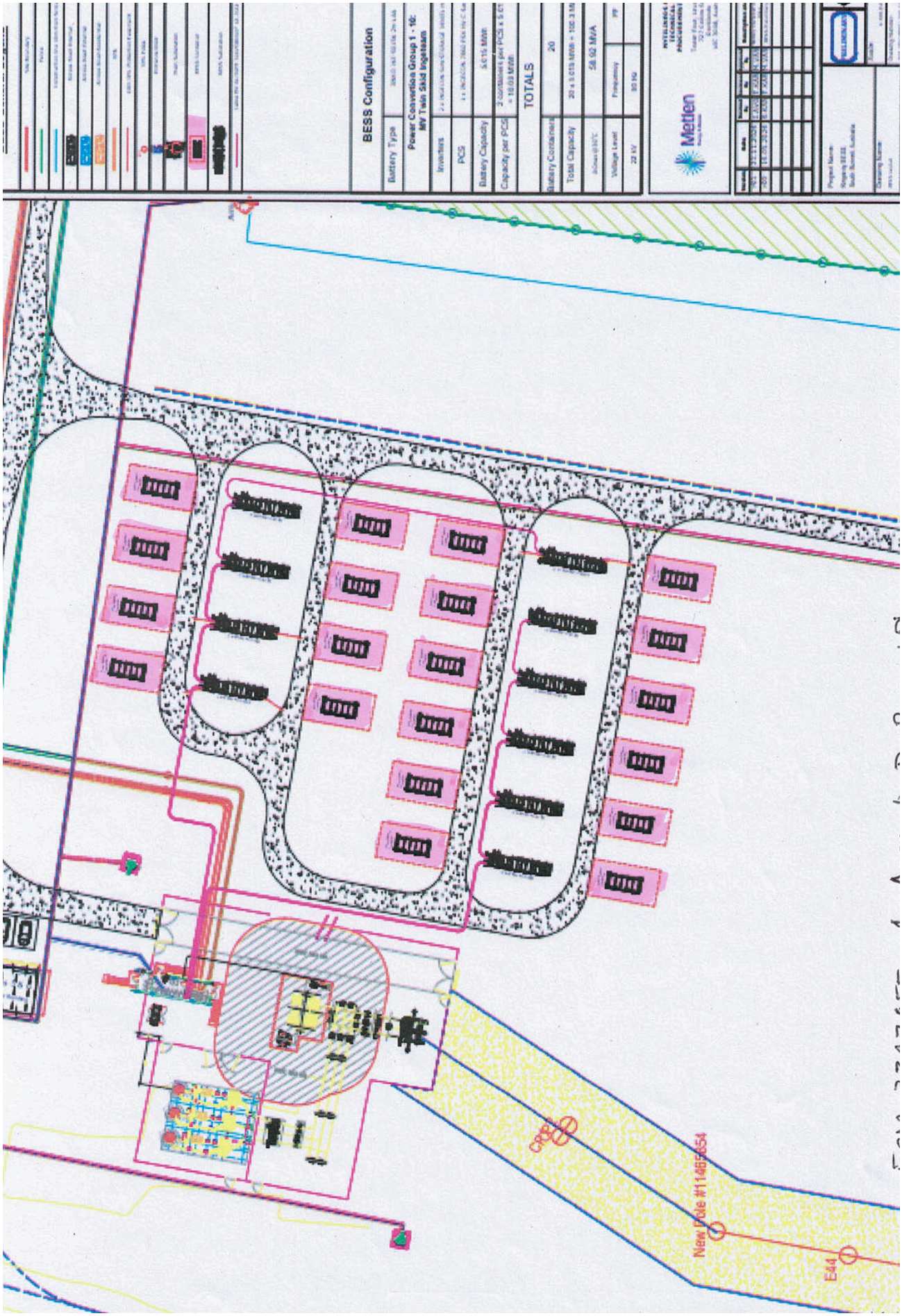
[redacted]

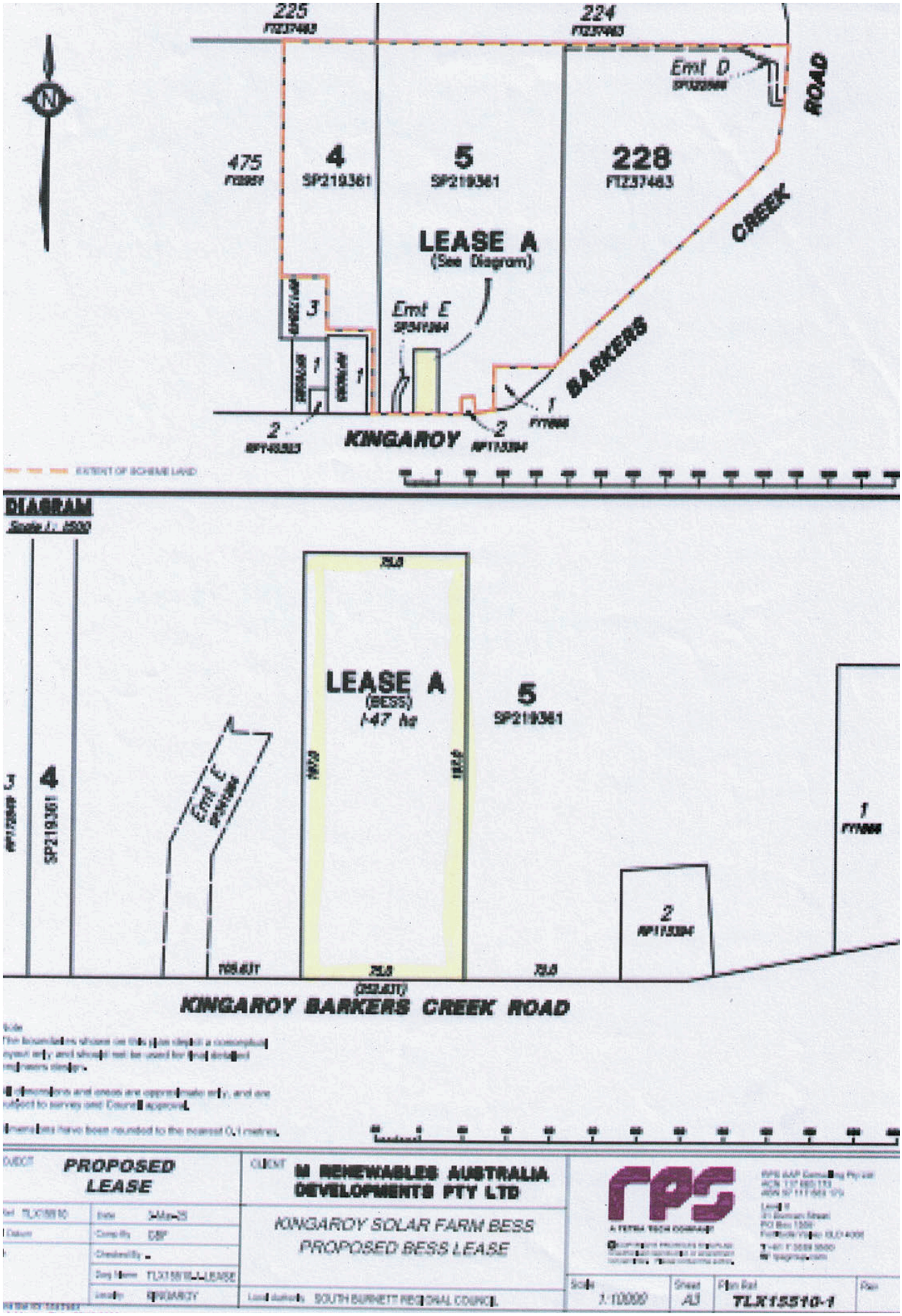
Kingaroy resident.
8th February 2026


GEALE ST
KINGAROY BARKERS CREEK RD
Distance: 1.97 km

PROPOSED DEVELOPMENT
HAVE YOUR SAY
UNDEFINED USE (BESS) AND
RECONFIGURING A LOT (LEASE EXCEEDING 10 YEARS)
397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610
Lot 5 on SP219361
Approval sought: Development Permits for Material Change of Use - Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years)
Application reference: MCU25/0025
Make a submission: 16 January to 9 February 2026
Building heights
- 3.0m
Setbacks
- South: 75m approximately
- West: 131m approximately
- East: 177m approximately
Site cover
- 1.05%
- 6,380m²
For further information and to view a copy of the application, contact:
- South Burnett Regional Council
- www.southburnett.qld.gov.au
- 1300 789 279
Submissions can be made to:
- South Burnett Regional Council
- PO Box 336, Kingaroy Qld 4610
- info@sbrc.qld.gov.au
Written submissions may be made electronically, and electronic submissions are to be sent to info@sbrc.qld.gov.au and all submissions, including individual submitter's particulars, will be published on Council's website and therefore will be accessible to internet search engines.
To be eligible for appeal rights under the Planning Act 2016 submissions must be received within the period to make a submission stated above.
Public notification requirements are in accordance with the Planning Act 2016
BESS Layout Plan
Proposed BESS Lease Area


BESS Configuration
Power Conversion Group 1 - 10:
MV Twin Skid Ingeteam
TOTALS
Metten
Bess Access Gate
South Access Gate
Access Gate for Operational Access


BESS Configuration
Battery Type
Power Conversion Group 1 - 10:
MV Twin Skid Ingeteam
Inverters
PCS
Battery Capacity
Capacity per PCS
TOTALS
Battery Containers
20
Total Capacity
28.92 MVA
Voltage Level
Frequency
22 kV
50 Hz
Metten
New Pole #11465854
E44


225
224
Emt D
ROAD
475
4
SP219361
5
SP219361
228
FTZ37463
LEASE A
(See Diagram)
CREEK
Emt E
3
1
1
BARKERS
1
2
2
KINGAROY
DIAGRAM
LEASE A
(BESS)
1·47 ha
5
SP219361
4
SP219361
Emt E
1
2
KINGAROY BARKERS CREEK ROAD
PROPOSED
LEASE
M RENEWABLES AUSTRALIA
DEVELOPMENTS PTY LTD
KINGAROY SOLAR FARM BESS
PROPOSED BESS LEASE
rps
Scale
1:10000
Sheet
A3
Plan Ref
TLX15510-1

SOUTH BURNETT REGIONAL COUNCIL

CEO APPROVED FORM: 3047594
Version 2 – June 2023
Liveability – Environment & Planning

# Public Submission

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| **Section 1 – Application details** | |
|---|---|
| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | LORRAINE SEDLICK |
| [redacted] | |
| Date | 5.2.26. |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
    We would like to refute this statement as currently, a constant "hum" emitted from the substation at the Solar Farm is audible from our premises and surrounds. This humming changes in intensity depending on climatic conditions, the time of day or night and prevailing wind direction. If the BESS were to be constructed, then there would likely be additional audible noise being emitted, particularly at night.

  - Page 14, 5.2 "Noise Impacts" **- "the proposed BESS will achieve compliance at all times <u>on the condition</u> that the inverters run at maximum 50% load during night time hours"** based on SLR Consulting's assessment methodology.
    Obviously, an inverter is designed to operate at 100%, and it will during the day and early evening. What level of noise will be emitted when the inverters run at the higher percentage and who / what will monitor the noise output?

  - Page 14 5.2 "Noise Impacts" **– "Five (5) sensitive uses were noted around the existing Solar Farm and proposed BESS location"** We would like to suggest that either M Renewables Australia Developments or SLR Consulting have not done due diligence in identifying the number of close residences to the proposed site. Local knowledge identifies that there are at least 10 residences (all occupied with families) within a 1kilometre radius or closer to the site. All will have to deal with the effects of emitted noise.

  - Page 13 figure 8 – Does not accurately reflect all the close residences. Some not identified on the plan, can certainly hear the 'humming' emitted from the Solar Farm now, so we suggest that we are also likely to be 'sensitive receivers' for additional noise emitted from the proposed BESS. Why have not all residents been identified as "sensitive receivers"?

- **Noise and Amenity Impacts During Construction**
  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
    We object to the start time of 6:00am every morning, six days a week for up to six months.

Most of the residents in close proximity are older and retired or have young families and will not appreciate being woken early, to construction noise, six days a week. Ultimately this affects our physical and mental health and well-being . We don't see anywhere that this has been taken into consideration.

- During the construction of the solar farm, we were forced to endure noise from the constant movement of heavy machinery, beeping of reversing machinery & trucks and sonic noise and vibrations from compacting rollers. All of this occurred around the substation area. Some of us even experienced vibrations to our roofs and windows. We do not want a recurrence of this cumulative noise pushing us to the limits of maintaining our mental health and wellbeing.
- As 'sensitive receivers' who spend a lot of our recreational time outdoors in our gardens and amenities, we will be exposed to constant construction noise. Our pets too, have displayed signs of severe stress when exposed to loud machinery movements and beepings. The enjoyment of our amenities will be reduced and with no recompense or consideration from the BESS construction and management Company.

- **Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy**

  - We have concerns that the volume of water and the rate of discharge of water onto Kingaroy Barkers Creek Road outside the solar farm will increase with the construction of the BESS, making flooding worse across the floodway.

    - The majority of us have lived here for over forty years and have local knowledge of the results of storms and rain events. We have noticed that there has been an increased flow and volume of floodwater across the floodway since the construction of the solar farm. Historically, we were always able to use the road, travelling east as an access out after storms or rain events. Now since the solar farm construction, water across the floodway rises quickly, cutting off the road. It is extremely dangerous as cars travelling west towards town come around the corner and unexpectantly hit the water filling the floodway or need to turn around and find an alternate way to town.
      Attached are photos from two rain events since the building of the solar farm showing flooding of the floodway to the extent that we had not seen prior to its construction.

    - The Town Planning Report, p 15, 5.4 Flood and Stormwater states that the BESS footprint is within a Council's flagged flood overlay area. It assumes that because the area has been previously cleared and levelled to accommodate the solar farm and its infrastructure, that no further adverse flood impacts will occur. We all remember the damage caused by storm rain of 80mm over two consecutive days in Nov 2023 when water broke through the Solar Farm's boundary fence on the western side, eroding soil, uprooting the recently planted trees and dumping plastic corflutes and wooden stakes through cultivation and along the watercourse on Kingaroy Barkers Creek Road.
      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

    - On the roadway inside the solar farm property, there is a large sign warning:
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        - It is reassuring that the Council requires a pre-lodgement advice in the form of a Preliminary Hazard Analysis. "Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community." (opening section of Executive Summary p1). This infers that there may be potential for hazards and risks to the general community from a failure with the BESS.
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        - It is alarming that there is no comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government & Planning and hence a risk assessment approach published by NSW Dept of Planning, Housing & Infrastructure has to be used for their report.

        - Sensitive Receptors – Appendix H, p7 figure 3-4 (attached)
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        - Potential release of toxic flammable gas or battery explosion

- **Recycling and End of Life Management**

Referring to Document 3 ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

- Operational Life p 11, 4.1.2
  No details re decommissioning, recycling and disposal of components of the BESS have been provided, nor with whom the responsibility lies.
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Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

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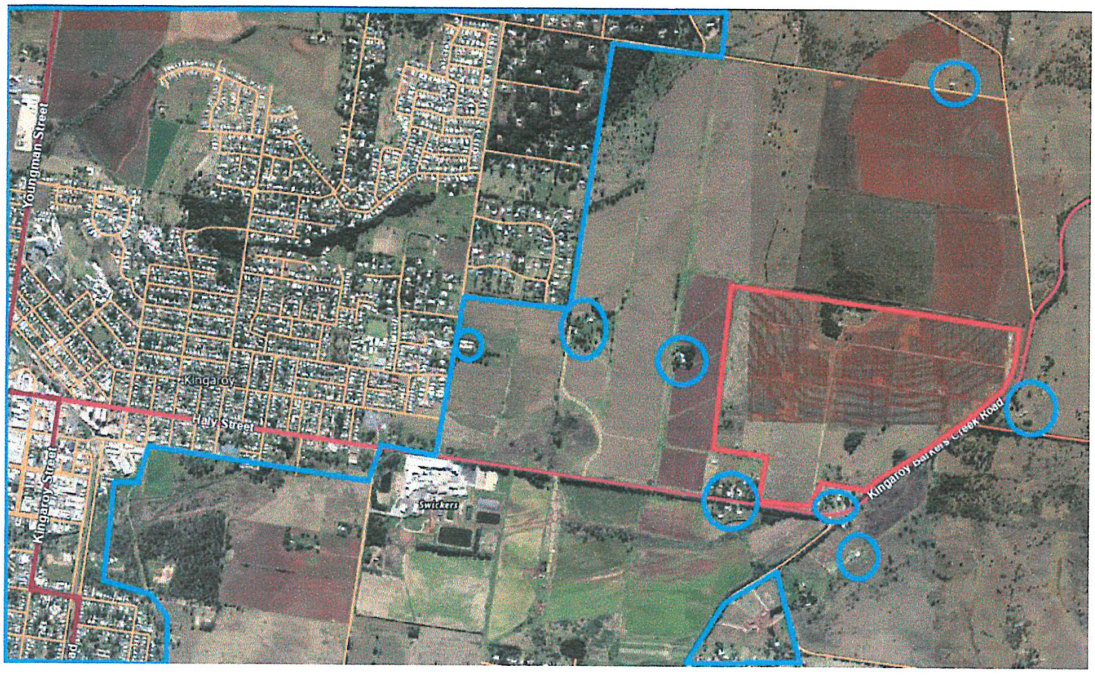



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

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## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
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| Transformer oil | C1 | Combustible liquid | 30 kL |

SOUTH BURNETT REGIONAL COUNCIL

CEO APPROVED FORM: 3047594
Version 2 – June 2023
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| **Section 1 – Application details** | |
|---|---|
| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | STEPHEN HOOD + RHONDA BOYNTON |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 5/2/26 |

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Public Submission Form

Page 1 of 1

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
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  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
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- During the construction of the solar farm, we were forced to endure noise from the constant movement of heavy machinery, beeping of reversing machinery & trucks and sonic noise and vibrations from compacting rollers. All of this occurred around the substation area. Some of us even experienced vibrations to our roofs and windows. We do not want a recurrence of this cumulative noise pushing us to the limits of maintaining our mental health and wellbeing.
- As 'sensitive receivers' who spend a lot of our recreational time outdoors in our gardens and amenities, we will be exposed to constant construction noise. Our pets too, have displayed signs of severe stress when exposed to loud machinery movements and beepings. The enjoyment of our amenities will be reduced and with no recompense or consideration from the BESS construction and management Company.

- **Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy**

  - We have concerns that the volume of water and the rate of discharge of water onto Kingaroy Barkers Creek Road outside the solar farm will increase with the construction of the BESS, making flooding worse across the floodway.

    - The majority of us have lived here for over forty years and have local knowledge of the results of storms and rain events. We have noticed that there has been an increased flow and volume of floodwater across the floodway since the construction of the solar farm. Historically, we were always able to use the road, travelling east as an access out after storms or rain events. Now since the solar farm construction, water across the floodway rises quickly, cutting off the road. It is extremely dangerous as cars travelling west towards town come around the corner and unexpectantly hit the water filling the floodway or need to turn around and find an alternate way to town.
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      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

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Outside Solar Farm. 0.4m of water across floodway.
Main streets of Kingaroy flooded. (Photos taken from gateway at 367 K'roy Barkers Crk Rd.)

We refute The Proponent's statement that The Storm Management Plan has identified that no adverse impacts are anticipated. (*Town Planning Report, p15, 5.4)*

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    - With reference to Appendix H, "Risk Hazard Assessment" of the Town Planning Report, prepared by Riskcon Engineering
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        - It is alarming that there is no comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government & Planning and hence a risk assessment approach published by NSW Dept of Planning, Housing & Infrastructure has to be used for their report.

        - Sensitive Receptors – Appendix H, p7 figure 3-4 (attached)
          The Sensitive Receptor Diagram indicates the close neighbourhood residences plus the township of Kingaroy to the west of the solar farm could be affected. However, Riskcon has determined that there is "no significant intensification of population around the proposed site," hence the residents near the BESS site and Kingaroy have not been considered in the hazard assessment.

        - Potential release of toxic flammable gas or battery explosion

- **Recycling and End of Life Management**

Referring to Document 3 ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

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  No details re decommissioning, recycling and disposal of components of the BESS have been provided, nor with whom the responsibility lies.
  "the site will be decommissioned and returned to its pre-development state"

During and after the construction of the solar farm, we (sensitive receivers) had many negative dealings with various personnel from Mytilineous, the company responsible for the solar farm. Changes that were promised and ways to deal with our concerns were not dealt with to our satisfaction. We believe M Renewables Australia Developments Pty Ltd and Metlan are part of this larger company. It is unfortunate that we already distrust the integrity of the company and it will continue to be a concern unless the social and industrial impacts for 'sensitive receivers' are addressed.

Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

Yours Faithfully, The Attached Submitters using the Public Submission form

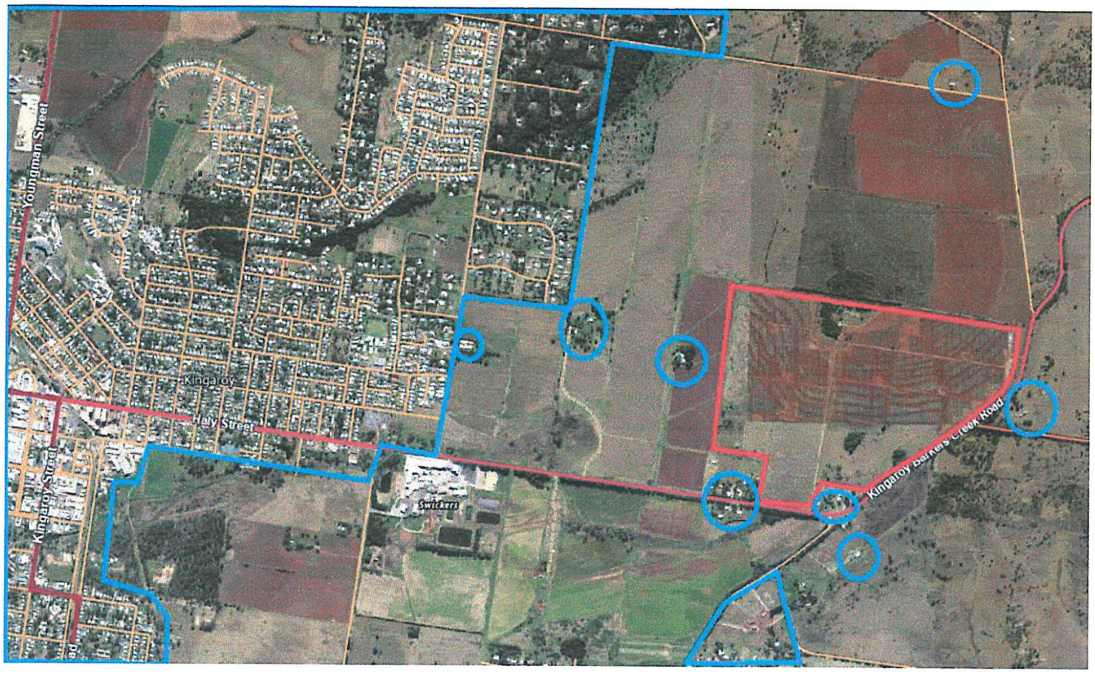



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

The containers conform to IEC 62619, IEC 62477-1, IEC 61000, UL 1973, UL 9540A, NFPA 855, and UN 38.3 standards in addition to others (**Appendix B**) which govern the safety and performance of the included batteries. This includes the installation of an active fire protection system using both gas and water within each container (**Appendix B**).

## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
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| BESS | 9 | Lithium Batteries | 804 t |
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SOUTH BURNETT REGIONAL COUNCIL

**CEO APPROVED FORM:** 3047594
**Version 2 – June 2023**
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# Public Submission

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This form has been provided to assist in lodging a submission with respect to a development application. The *Planning Act 2016* (Qld) states that only a 'properly made submission's will be considered. A 'properly made submission' **MUST: -**

- Be signed by each person (the submission makers) making the submission;
- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | Suzanne Hansen |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 6/2/2026 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
    We would like to refute this statement as currently, a constant "hum" emitted from the substation at the Solar Farm is audible from our premises and surrounds. This humming changes in intensity depending on climatic conditions, the time of day or night and prevailing wind direction. If the BESS were to be constructed, then there would likely be additional audible noise being emitted, particularly at night.

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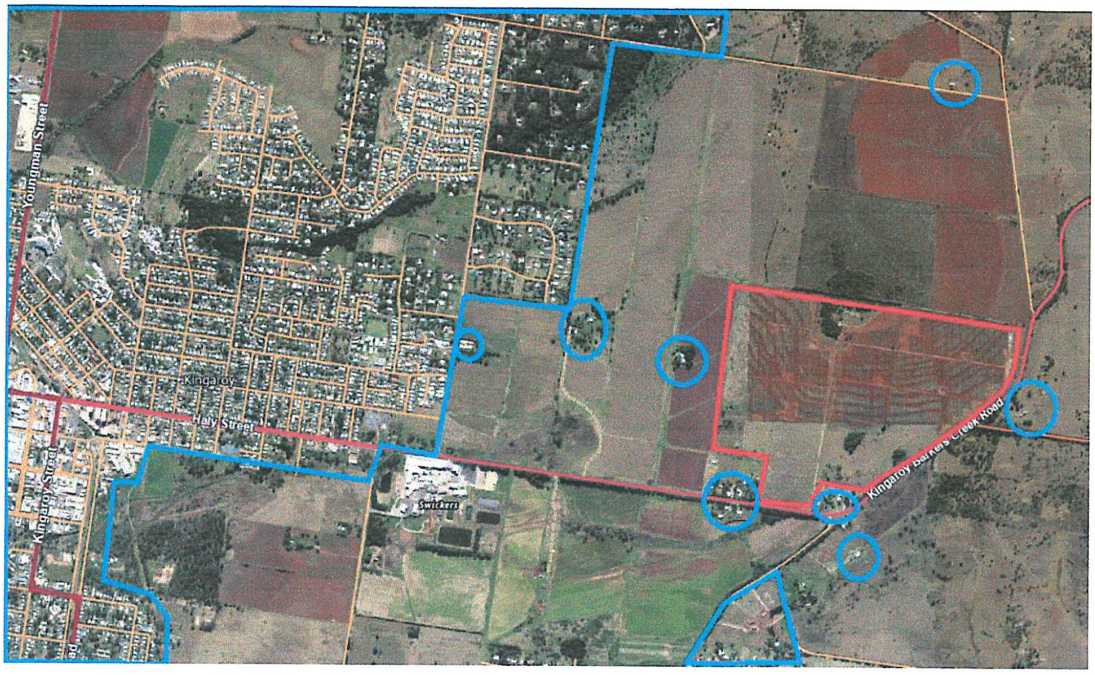



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

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☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | Trevor Hansen |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 6/2/2026 |

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South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

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      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

    - On the roadway inside the solar farm property, there is a large sign warning:
      "Road Subject To Flooding.
      Indicators Show Depth"
      This is in the proposed site and place where the BESS will be constructed.







28.11.2023 after 45mm storm rain. Kingaroy Barkers Creek Road - Eas
Outside Kingaroy Solar Farm. 35mm had fallen the previous day.







30.12.2024 after 126mm rain (storm) Kingaroy Barkers Creek Road - East
Outside Solar Farm. 0.4m of water across floodway.
Main streets of Kingaroy flooded. (Photos taken from gateway at 367 K'roy Barkers Crk Rd.)

We refute The Proponent's statement that The Storm Management Plan has identified that no adverse impacts are anticipated. (*Town Planning Report, p15, 5.4)*

- **Potential for Hazards: Impacts from Fire / Toxic Gas dispersion / Battery Faults, Rupture / Equipment Failure**
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        - It is reassuring that the Council requires a pre-lodgement advice in the form of a Preliminary Hazard Analysis. "Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community." (opening section of Executive Summary p1). This infers that there may be potential for hazards and risks to the general community from a failure with the BESS.
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          Riskcon Engineering's conclusion states: "The project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site." It then goes on with eight recommendations to be met. This offers us no reassurance at all. What is meant by "Potentially Hazardous?"

        - It is alarming that there is no comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government & Planning and hence a risk assessment approach published by NSW Dept of Planning, Housing & Infrastructure has to be used for their report.

        - Sensitive Receptors – Appendix H, p7 figure 3-4 (attached)
          The Sensitive Receptor Diagram indicates the close neighbourhood residences plus the township of Kingaroy to the west of the solar farm could be affected. However, Riskcon has determined that there is "no significant intensification of population around the proposed site," hence the residents near the BESS site and Kingaroy have not been considered in the hazard assessment.

        - Potential release of toxic flammable gas or battery explosion

- **Recycling and End of Life Management**

Referring to Document 3 ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

- Operational Life p 11, 4.1.2
  No details re decommissioning, recycling and disposal of components of the BESS have been provided, nor with whom the responsibility lies.
  "the site will be decommissioned and returned to its pre-development state"

During and after the construction of the solar farm, we (sensitive receivers) had many negative dealings with various personnel from Mytilineous, the company responsible for the solar farm. Changes that were promised and ways to deal with our concerns were not dealt with to our satisfaction. We believe M Renewables Australia Developments Pty Ltd and Metlan are part of this larger company. It is unfortunate that we already distrust the integrity of the company and it will continue to be a concern unless the social and industrial impacts for 'sensitive receivers' are addressed.

Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

Yours Faithfully, The Attached Submitters using the Public Submission form

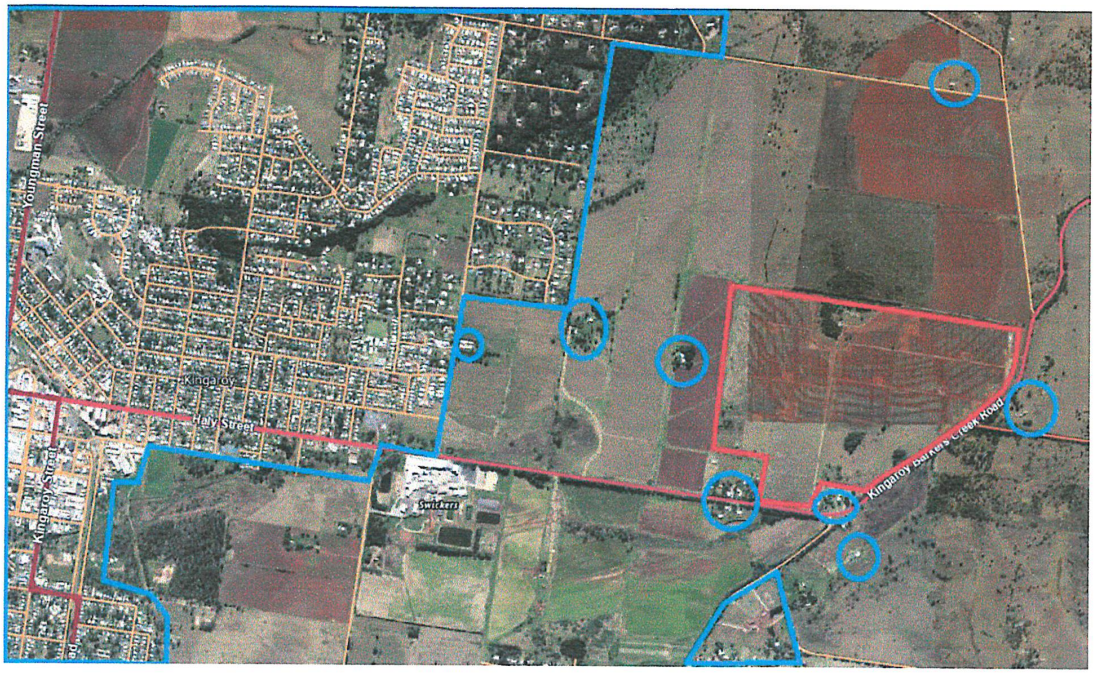



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

The containers conform to IEC 62619, IEC 62477-1, IEC 61000, UL 1973, UL 9540A, NFPA 855, and UN 38.3 standards in addition to others (**Appendix B**) which govern the safety and performance of the included batteries. This includes the installation of an active fire protection system using both gas and water within each container (**Appendix B**).

## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
|---|---|---|---|
| BESS | 9 | Lithium Batteries | 804 t |
| Transformer oil | C1 | Combustible liquid | 30 kL |

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This form has been provided to assist in lodging a submission with respect to a development application. The *Planning Act 2016* (Qld) states that only a 'properly made submission's will be considered. A 'properly made submission' **MUST: -**

- Be signed by each person (the submission makers) making the submission;
- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Development Permits for Material Change of Use – Undefined Use (BESS) & Reconfiguring a Lot (Lease Exceeding 10 Years) |
| Applicant/s full name | M Renewables Australia Developments PTY LTD |
| Application number | MCU 25/0025 |
| Address of application | 397 Kingaroy Barkers Creek Road, KINGAROY 4610 QLD |

**Section 2 – Grounds for submission (Attach more pages if required)**

1. Noise Emission & Health Impacts
2. Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy.
3. Potential for Hazards: Impacts from Fire / Toxic Gas Dispersion /Battery Faults, Rupture / Equipment Failure
4. Recycling & End of Life Management

Attachments provided

☑ More pages attached

| **Section 3 - Details of submitter/s** | | |
|---|---|---|
| Submitter/s name/s | DESLEY BENECKE | LIONEL BENECKE |
| Postal address | [redacted] | |
| Residential address | | |
| Signature | | |
| Date | 05.02.2026 | 05.02.2026 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

South Burnett Regional Council

PO Box 336

Kingaroy QLD 4610

05.02.2026

To Whom It May Concern

With regards the application by M Renewables Australia Developments Pty Ltd, Application Ref: MCU25/0025, for Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease exceeding 10 years) at 397 Kingaroy Barkers Creek Road, Kingaroy Qld 4610.

Our properties, are located from [redacted] Kingaroy Barkers Creek Road, Kingaroy, on the western and southern sides of The Kingaroy Solar Farm boundary.

We are objecting to the Approval sought for Development Permits for Material Change of Use and Reconfiguring a Lot, on the following grounds:

- **Noise Emission and Health Impacts**

  Referring to Document 3, ***Town Planning Report - Kingaroy Solar Farm Battery Energy Storage System*** prepared by RPS Senior Planner, Stewart Owner.

  - Page 3 "*The proposal is supported on the following grounds"* (dot point 2) **"Noise emissions from the BESS will not cause a noticeable nuisance upon nearby sensitive receivers"**
    We would like to refute this statement as currently, a constant "hum" emitted from the substation at the Solar Farm is audible from our premises and surrounds. This humming changes in intensity depending on climatic conditions, the time of day or night and prevailing wind direction. If the BESS were to be constructed, then there would likely be additional audible noise being emitted, particularly at night.

  - Page 14, 5.2 "Noise Impacts" **- "the proposed BESS will achieve compliance at all times <u>on the condition</u> that the inverters run at maximum 50% load during night time hours"** based on SLR Consulting's assessment methodology.
    Obviously, an inverter is designed to operate at 100%, and it will during the day and early evening. What level of noise will be emitted when the inverters run at the higher percentage and who / what will monitor the noise output?

  - Page 14 5.2 "Noise Impacts" **– "Five (5) sensitive uses were noted around the existing Solar Farm and proposed BESS location"** We would like to suggest that either M Renewables Australia Developments or SLR Consulting have not done due diligence in identifying the number of close residences to the proposed site. Local knowledge identifies that there are at least 10 residences (all occupied with families) within a 1kilometre radius or closer to the site. All will have to deal with the effects of emitted noise.

  - Page 13 figure 8 – Does not accurately reflect all the close residences. Some not identified on the plan, can certainly hear the 'humming' emitted from the Solar Farm now, so we suggest that we are also likely to be 'sensitive receivers' for additional noise emitted from the proposed BESS. Why have not all residents been identified as "sensitive receivers"?

- **Noise and Amenity Impacts During Construction**
  - We note that the duration and hours of construction are proposed to be Monday to Saturday from 6:00am to 5:00pm for 3 to 6 months.
    We object to the start time of 6:00am every morning, six days a week for up to six months.

Most of the residents in close proximity are older and retired or have young families and will not appreciate being woken early, to construction noise, six days a week. Ultimately this affects our physical and mental health and well-being . We don't see anywhere that this has been taken into consideration.

- During the construction of the solar farm, we were forced to endure noise from the constant movement of heavy machinery, beeping of reversing machinery & trucks and sonic noise and vibrations from compacting rollers. All of this occurred around the substation area. Some of us even experienced vibrations to our roofs and windows. We do not want a recurrence of this cumulative noise pushing us to the limits of maintaining our mental health and wellbeing.
- As 'sensitive receivers' who spend a lot of our recreational time outdoors in our gardens and amenities, we will be exposed to constant construction noise. Our pets too, have displayed signs of severe stress when exposed to loud machinery movements and beepings. The enjoyment of our amenities will be reduced and with no recompense or consideration from the BESS construction and management Company.

- **Increased / Altered Flooding onto Kingaroy Barkers Creek Road and further along the watercourse into the township of Kingaroy**

  - We have concerns that the volume of water and the rate of discharge of water onto Kingaroy Barkers Creek Road outside the solar farm will increase with the construction of the BESS, making flooding worse across the floodway.

    - The majority of us have lived here for over forty years and have local knowledge of the results of storms and rain events. We have noticed that there has been an increased flow and volume of floodwater across the floodway since the construction of the solar farm. Historically, we were always able to use the road, travelling east as an access out after storms or rain events. Now since the solar farm construction, water across the floodway rises quickly, cutting off the road. It is extremely dangerous as cars travelling west towards town come around the corner and unexpectantly hit the water filling the floodway or need to turn around and find an alternate way to town.
      Attached are photos from two rain events since the building of the solar farm showing flooding of the floodway to the extent that we had not seen prior to its construction.

    - The Town Planning Report, p 15, 5.4 Flood and Stormwater states that the BESS footprint is within a Council's flagged flood overlay area. It assumes that because the area has been previously cleared and levelled to accommodate the solar farm and its infrastructure, that no further adverse flood impacts will occur. We all remember the damage caused by storm rain of 80mm over two consecutive days in Nov 2023 when water broke through the Solar Farm's boundary fence on the western side, eroding soil, uprooting the recently planted trees and dumping plastic corflutes and wooden stakes through cultivation and along the watercourse on Kingaroy Barkers Creek Road.
      The construction of the solar farm resulted in the removal of contour banks and erosion controlling features on the site which has now increased the flow of water onto and from the site of the proposed BESS. We see the increased amount of water flowing across the floodway near the entrance to the Solar Farm, into the farm previously owned by Hansens, across the floodway at Swickers Processing Plant and flowing into Kingaroy.

    - On the roadway inside the solar farm property, there is a large sign warning:
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Thankyou for taking the time to consider our submission outlining our objections to the granting of Development Permits for Material Change of Use – Undefined Use (BESS) and Reconfiguring a Lot (Lease Exceeding 10 Years.

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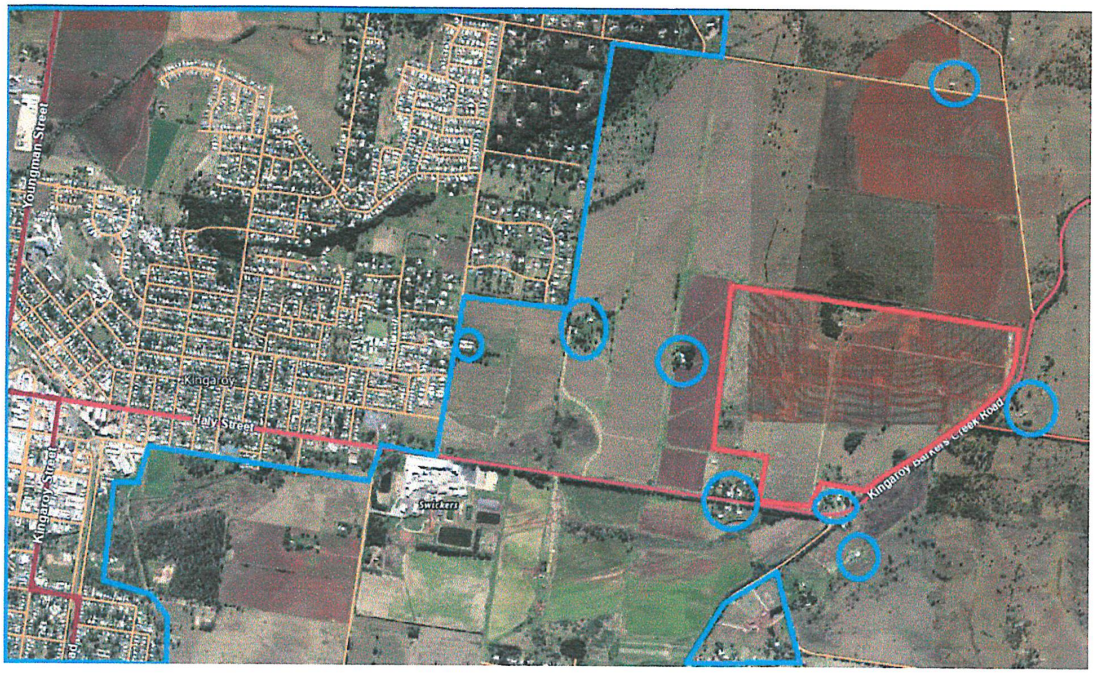



**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

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## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
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- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Undefined Use (BESS) + Reconfiguring lot (lease exceeding 10 yrs). |
| Applicant/s full name | Unknown |
| Application number | MCU25/0025 |
| Address of application | 397 Kingaroy Barkers Crk Rd Kingaroy 4610 |

**Section 2 – Grounds for submission** (Attach more pages if required)

- the current solar farm already impacts drainage after storms
- the road is already breaking up from wet
- batteries & solar farms should not be this close to an urban area - particles from solar panels will end up in soil as they deteriorate & will cause massive contamination

☑ More pages attached PTO

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | Lesley Wilson |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 6/2/26. |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

Public Submission Form

Page 1 of 1

- the people whom live close to this pro
to the original proposal - their land is now useless
& worthless to others
- If there is a fire ever go through. ya
wan't be able to extinguish it. - the toxic smoke!!
- the traffic on the kingaroy bakers ark
road has already increased, lots of trucks
caravans making cuts to the coast via
thus way.
The road is NOT designed for the amount of
trucks or even wide enough to cope with them.
Is it going to take a few deaths to get
something done.
- Not Batteries here - too dangerous
too close to houses & too close to
Kingaroy.
* If there is a fire in these thungs, what
will be the exclusion zone??
Will people have to be evacuated from
Kingaroy, surrands of solar farm, kingaroy
heights & will the road - Kingaroy Bakers
Crk be closed in such an event??

I say NO

TOPO.

# STORMWATER MANAGEMENT PLAN

## KINGAROY BATTERY ENERGY STORAGE SYSTEM (BESS) PROJECT

## KINGAROY BARKERS CREEK ROAD, KINGAROY, QLD



**CLIENT:** M RENEWABLES

**DOCUMENT NUMBER:** 24-0270/R3694

**VERSION:** B

**DATE:** 31-1-2025

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TABLE 5 – PRE- VS POST-DEVELOPMENT (UNMITIGATED AND MITIGATED) AT LPD A 7

| | |
|---|---|
| **Report Title:** | Stormwater Management Plan – Kingaroy Battery Energy Storage System (BESS) |
| **Affected Properties:** | |
| **Street Address** | Kingaroy Barkers Creek Road, Kingaroy, QLD |
| **RP Description** | Lot 4 on SP219361, Lot 5 on SP219361 and Lot 228 on FTZ37463 |
| **Prepared For:** | M Renewables |
| **Date:** | 31-1-2025 |
| **Revision No.** | B |
| **Report Status:** | Final |
| **Prepared By:** | |
| **Name** | Blake Stephens |
| **Qualifications** | BEng (Civil) |
| **Company** | Topo. |
| **Phone No.** | 0416 052 767 |
| **Certified By:** | |
| **Name** | Steven Chamberlain |
| **Qualification** | BEng (Environmental) (Hons) |
| **Company** | Topo. |
| **Phone No.** | 0429 968 050 |
| **Industry Accreditation** | RPEQ 15,545 |
| **Signature** | |



# 1 INTRODUCTION

Topo were engaged by M Renewables to prepare a Stormwater Management Plan (SMP) for the proposed Kingaroy Battery Energy Storage System (BESS) facility on Kingaroy Barkers Creek Road, Kingaroy, QLD.

## 1.1. GUIDELINES

This SMP been prepared in accordance with:

- *Queensland Urban Drainage Manual* (QUDM),
- The South Burnett Regional Council (SBRC) Planning Scheme | April 2019 *Standards for Design of Stormwater Drainage Works*
- *State Planning Policy (Water)* (2017)

## 1.2. REVISION

| VER. | DATE | AUTHOR | APPROVED |
|---|---|---|---|
| - | 15-11-2024 | B. STEPHENS | S. CHAMBERLAIN |
| A | 11-12-2024 | B. STEPHENS | S. CHAMBERLAIN |
| B | 11-12-2024 | B. STEPHENS | S. CHAMBERLAIN |

# 2 PROJECT DESCRIPTION

## 2.1. EXISTING SITE

The subject site is formally described as Lot 4 on SP219361, Lot 5 on SP219361 and Lot 228 on FTZ37463 and is located on Kingaroy Barkers Creek Road, Kingaroy. The majority of the site is occupied by a previously approved solar farm, with the proposed BESS covering an area of approximately 5 ha in the southern portion of the site.

Access to the BESS is provided off Kingaroy Barkers Creek Road. The site and project extents are presented as Figure 1.

## 2.2. PROPOSED WORKS

The proposed BESS development is expected to store electricity to be provided to the grid at times of peak demand. The proposed works include:

- BESS with a capacity of 20 Racks (480 mod) = 9,200 kWh;
- Existing solar panel array to remain; and
- Site access via Kingaroy Barkers Creek Road.

The indicative site layout plan is provided as Figure 2, with further details provided in Appendix A.

## 2.3. TOPOGRAPHY & LAWFUL POINT OF DISCHARGE

The greater site grades generally from north to south at approximately 5 %. Based on LIDAR data, some of the solar farm drains into the BESS area. A diversion bund is located on the northern side of the BESS, directing runoff from Catchment Ext2 around the western side of the BESS. All runoff is directed towards Kingaroy Barkers Creek Road and this constitutes the the sites Lawful Point of Discharge (LPD).

It is understood a Stormwater Management Plan was developed for the solar farm development and that basin(s) were provided to ensure no adverse impacts as a result of that development. The focus of this SMP is therefore on the BESS only, and any external catchments directing runoff through the BESS project area.




**Figure 1 – Site and BESS Locality Plan (QLD Globe)**

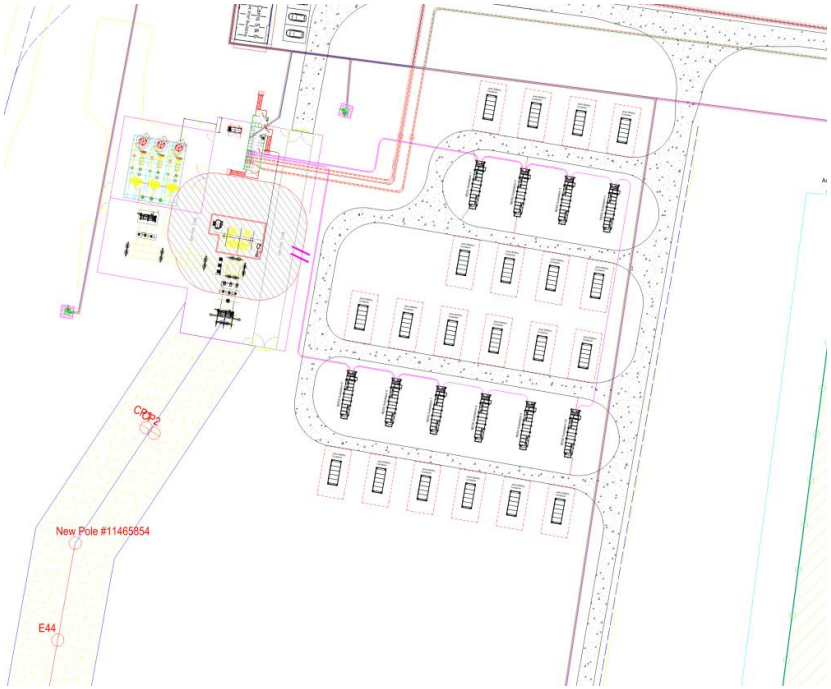



**Figure 2 –BESS Configuration (Source: Mytilineos Drawing No [AUS]-[KNG] [006][011])**

# 3 HYDROLOGIC MODELLING

## 3.1. DESIGN OBJECTIVES

This report has been prepared to demonstrate pre-development peak flow rates can be maintained for the full range of design storm events and that no adverse impacts in relation to drainage and flooding can be expected as a result of the development.

As previously noted, the focus of this SMP is on the BESS only, and any external catchments directing runoff through the project area. Details of the hydrologic and hydraulic modelling undertaken are provided in the following sections.

## 3.2. METHODOLOGY

An integrated hydrologic and hydraulic model was constructed using XP-SWMM. The model represents the sub-catchments as a network of nodes linked to 1D drainage elements. The design rainfall is routed through the network after appropriate losses (initial and continuing) and roughness factors are applied, resulting in a surface runoff hydrograph for each sub-catchment.

### 3.2.1. HYDROLOGY

The XP-SWMM runoff-routing model has been used to estimate design flood discharges within the study area, and a peak flow comparison carried out using the Rational Method. The XP-SWMM model was used to estimate the 63 % to 1 % Annual Exceedance Probability (AEP) storm event for the 15 to 360-minute standard duration events using the ARR DataHub ensemble patterns.

### 3.2.2. RAINFALL DATA

Intensity Frequency Duration (IFD) data for the site has been derived using the Bureau of Meteorology (BOM) 2016 Rainfall IFD Data System. The rainfall intensities applied to the hydrologic modelling are summarised in Table 1.

### 3.2.3. ROUTING

Hydrologic modelling has been undertaken using the Laurenson runoff routing method. The Laurenson method requires the catchment to be defined by its pervious and impervious areas. A fraction impervious of 0 % has been applied to the pervious portion and 100 % to the impervious portion.

### 3.2.4. ROUGHNESS COEFFICIENTS

The Manning's roughness coefficients have been varied for the impervious and pervious portions of the catchment. The following values were applied:

- Developed catchment:
  - n = 0.0275 for compacted gravel,
  - n = 0.015 for other impervious area
- Undeveloped catchment:
  - n = 0.045 for grass,
  - n = 0.03 for Solar Panels

### 3.2.5. RAINFALL LOSSES

Initial Loss (IL) and Continuing Losses (CL) have been applied to the modelling, and these values have been varied for the impervious and pervious portions of the catchment. The following loss rates have been applied:

- Developed catchment (Concrete, Roof, road) IL = 1 mm, CL = 0 mm/hr
- Developed catchment (compacted gravel) IL = 2.5 mm, CL = 1 mm/hr
- Undeveloped catchment IL = 10 mm, CL = 2 mm/hr

**Table 1 – Intensity Frequency Duration Data Applied to Hydrologic Assessment**

| DURATION | RAINFALL INTENSITY (mm/hr) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 63% AEP | 0.5 EY# | 0.2 EY* | 10% AEP | 5% AEP | 2% AEP | 1% AEP |
| 5 | 138.0 | 177.0 | 228.0 | 265.0 | 304.0 | 355.0 | 392.0 |
| 10 | 115.0 | 147.0 | 190.0 | 222.0 | 256.0 | 300.0 | 332.0 |
| 15 | 108.0 | 138.0 | 178.0 | 207.0 | 239.0 | 280.0 | 309.0 |
| 20 | 103.0 | 132.0 | 169.0 | 197.0 | 227.0 | 265.0 | 293.0 |
| 25 | 98.9 | 126.0 | 162.0 | 189.0 | 217.0 | 253.0 | 279.0 |
| 30 | 94.8 | 121.0 | 156.0 | 181.0 | 208.0 | 242.0 | 268.0 |
| 45 | 81.2 | 104.0 | 134.0 | 155.0 | 178.0 | 207.0 | 229.0 |
| 60 | 68.7 | 88.0 | 113.0 | 132.0 | 151.0 | 176.0 | 195.0 |
| 90 | 59.7 | 76.4 | 98.4 | 114.0 | 132.0 | 153.0 | 170.0 |
| 120 | 52.8 | 67.6 | 87.1 | 101.0 | 117.0 | 136.0 | 151.0 |
| 180 | 47.5 | 60.7 | 78.2 | 91.1 | 105.0 | 122.0 | 136.0 |

### 3.2.6. CATCHMENTS & LAWFUL POINT OF DISCHARGE

A combination of publicly sourced 1 m LIDAR data and aerial imagery was used to define the site catchments and external catchments contributing runoff to the BESS area. Catchment A defines the proposed BESS, while external catchments Ext 1 and Ext 2 are assumed to convey runoff through the study area from the north and north-east.

Note the pre- and post-development delineation is the same with only the fraction impervious changing in the post-development scenario.

Catchment details are also summarised in Table 2 and Table 3. A weighted average has been calculated for areas where there is a mixture of pervious and impervious surfaces within the catchment, with the following breakdown of land uses being applied to the assessment:

- Roads/hardstand fi = 100 %
- Gravel sheeted areas fi = 100 %
- Solar panels/arrays fi = 0 %
- Vegetated/grassed areas fi = 0 %
- Buildings fi = 100 %

Refer to Figure 3 and Appendix B for land use breakdown.

An extract of the post-development catchment plan is provided as Figure 3, with further details provided in Appendix B.

**Table 2 – Impervious Catchment Details**

| CATCH ID | TOTAL AREA (ha) | LAND USE DESIGNATION | IMPERVIOUS AREA (ha) | PERVIOUS AREA (ha) |
|---|---|---|---|---|
| Ext 1 | 32.872 | Ground* | 1.719 | - |
| | | Ground | - | 15.467 |
| | | Panels | - | 15.687 |
| Ext 2 | 11.38 | Ground* | 0.370 | - |
| | | Ground | - | 3.331 |
| | | Panels | - | 7.679 |
| Pre A | 4.856 | Ground | - | 4.856 |
| Post A | 4.856 | Roads, carparking, buildings | 0.757 | - |
| | | Ground | - | 3.553 |
| | | BESS (gravel sheeted) | 0.546 | - |

NOTE: * Ground areas through the solar farm assumed to be 10 % impervious to account for existing tracks and hardstand areas

**Table 3 – Overall Catchment Details Applied to Hydrologic Assessment**

| CATCH ID | AREA (ha) | FRACTION IMPERVIOUS (%) | SLOPE (%) |
|---|---|---|---|
| Ext 1 | 32.872 | 5 | 4 |
| Ext 2 | 11.380 | 3 | 3 |
| Pre A | 4.856 | 0 | 1 |
| Post A | 4.856 | 27 | 1 |

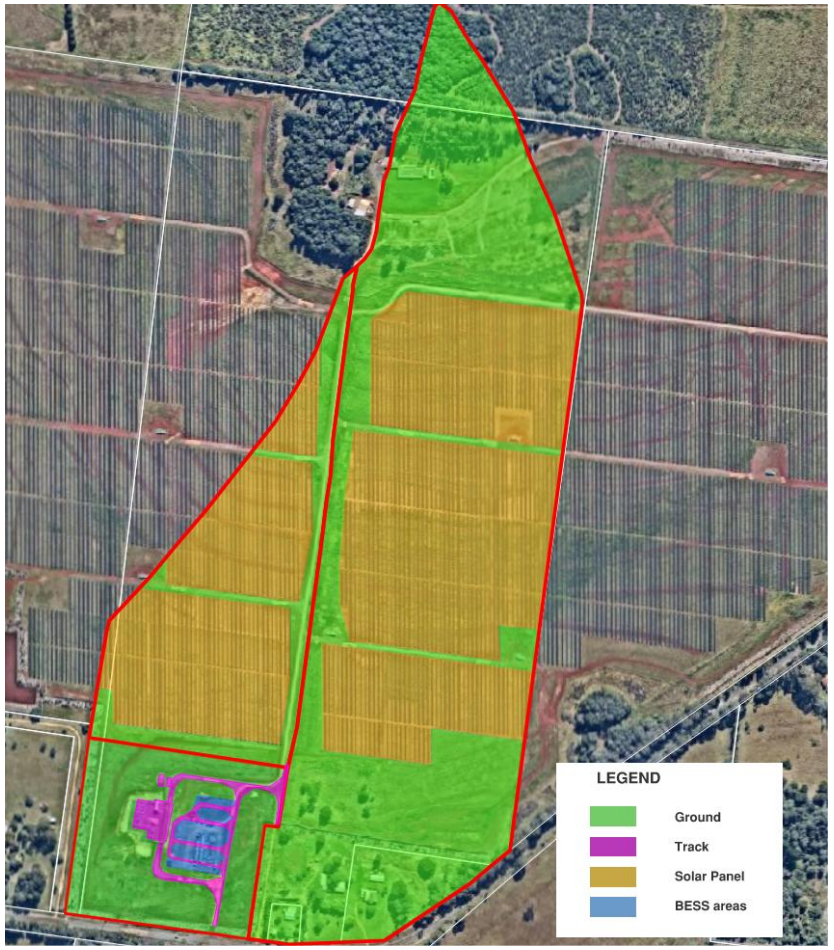



**Figure 3 –Land Use Plan**

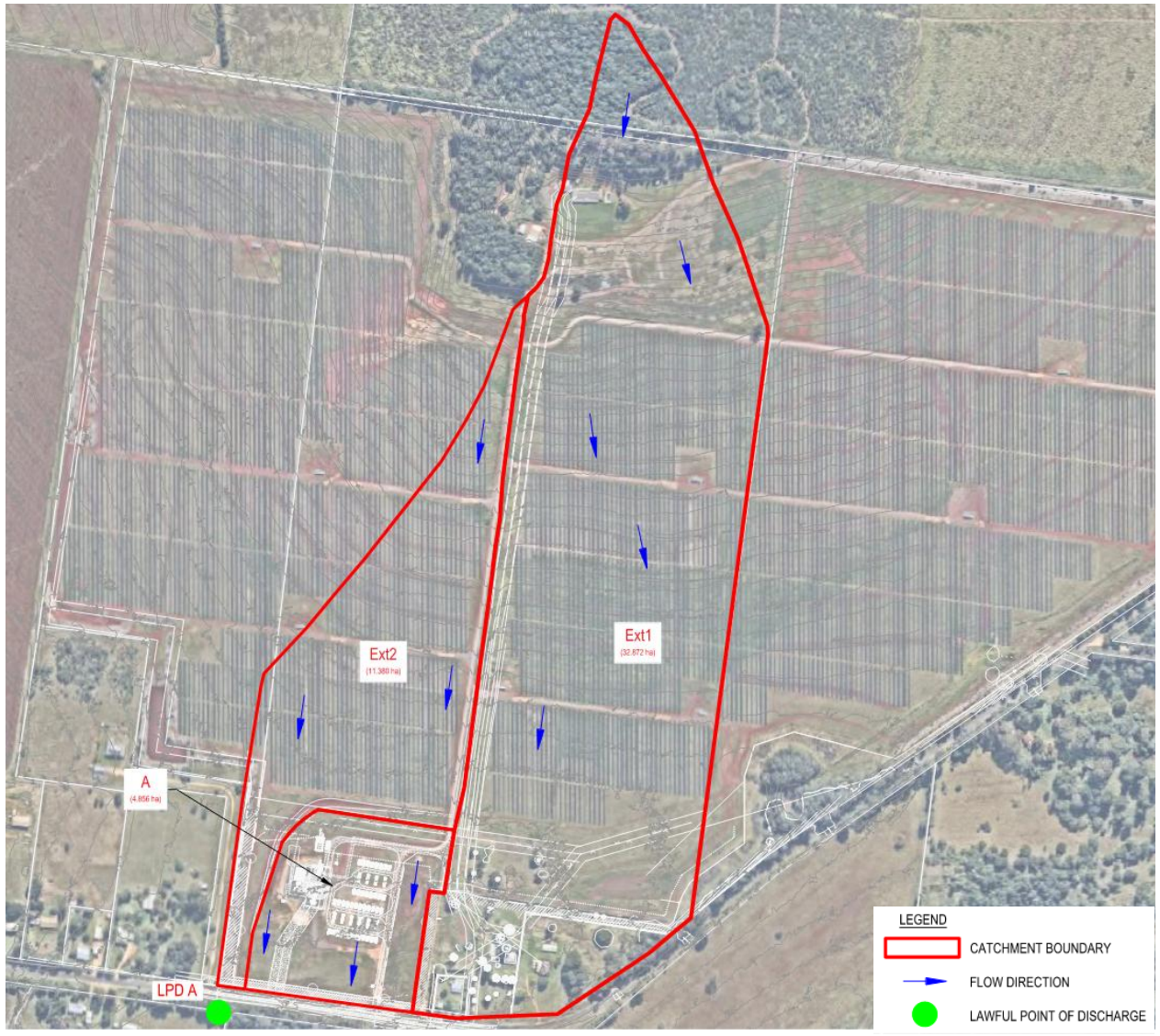



**Figure 4 – Post-Development Catchment Plan**

# 4 HYDRAULIC MODELLING - QUANTITY

## 4.1. DESIGN OBJECTIVES

The design objective is to demonstrate no actionable nuisance in terms of drainage as a result of the development. The developed site will incorporate mitigation measures and a drainage system designed to ensure pre-development peak discharges and the LPD are maintained. Therefore, there will be no adverse impacts in relation to drainage as a result of the BESS.

### 4.1.1. DETENTION SYSTEM CHARACTERISTICS

The detention basin will provide a staged outlet structure to ensure the pre-development peak flow rates are maintained for the full range of design storm events. A summary of the modelling results, including details of the proposed outlet structure are summarised in Table 4. Further details of the detention system will be provided during the detailed design phase of the project.

**Table 4 – Summary of Required Detention Volumes and Outlet Configuration**

| MAX. DEPTH# (m) | MAX. VOLUME# (m $^3$) | OUTLET CONFIGURATION |
|---|---|---|
| 1.09 m | 518 m$^3$ (at 1 % AEP peak water level) | + 0.2 m x 0.35 m Orifices at base in 600 x 900 mm riser with crest at 0.65 m above base, with 450 mm outlet pipe IL at base &<br>+ 0.2 m x 0.35 m Orifices at base in 600 x 900 mm riser with crest at 0.85 m above base, With 450 mm outlet pipe IL at base; and<br>+ High flow spillway, 3.0 m width at 1.0 m above base. |

A comparison of the pre-development, post-development (unmitigated) and post-development (mitigated) flow rates at LPD A for the critical duration median storm event is provided as Table 5.

**Table 5 – Pre- vs Post-Development (Unmitigated and Mitigated) at LPD A**

| AEP | PEAK FLOW (m$^3$/s) | | | |
|---|---|---|---|---|
| | PRE | POST-UNMIT. | POST MIT | DIFFERENCE |
| 1 % | 0.957 | 1.226 | 0.929 | -0.028 |
| 2 % | 0.817 | 1.068 | 0.771 | -0.046 |
| 5 % | 0.662 | 0.852 | 0.62 | -0.042 |
| 10 % | 0.537 | 0.709 | 0.499 | -0.038 |
| 0.2 EY | 0.427 | 0.578 | 0.423 | -0.004 |
| 0.5 EY | 0.279 | 0.424 | 0.259 | -0.02 |
| 63 % | 0.191 | 0.344 | 0.19 | -0.001 |

NOTE: (1) Difference values reported represent the post-development mitigated peak flow rates minus the pre-development peak flow rate. Therefore, negative values represent a reduction in peak flow rate in the post-development scenario. Results presented for the Median storm event.

As presented, all flows (1 % AEP to 63 % AEP) have been mitigated by the incorporation of the detention basin A, therefore, there will be no adverse impacts related to flooding/drainage for roadways and properties in the vicinity of the development.

The basin location and key design elements are illustrated conceptually in Figure 5 and Appendix B. Basin sizing has been undertaken assuming the external catchment flows are diverted past the BESS and the proposed basin. An existing diversion bund on the northern side of the BESS diverts external catchment 2. It may be necessary to provide an open swale to divert runoff from external catchment 1 past the basin and to the LPD. This will be determined during the detailed design phase of the project.

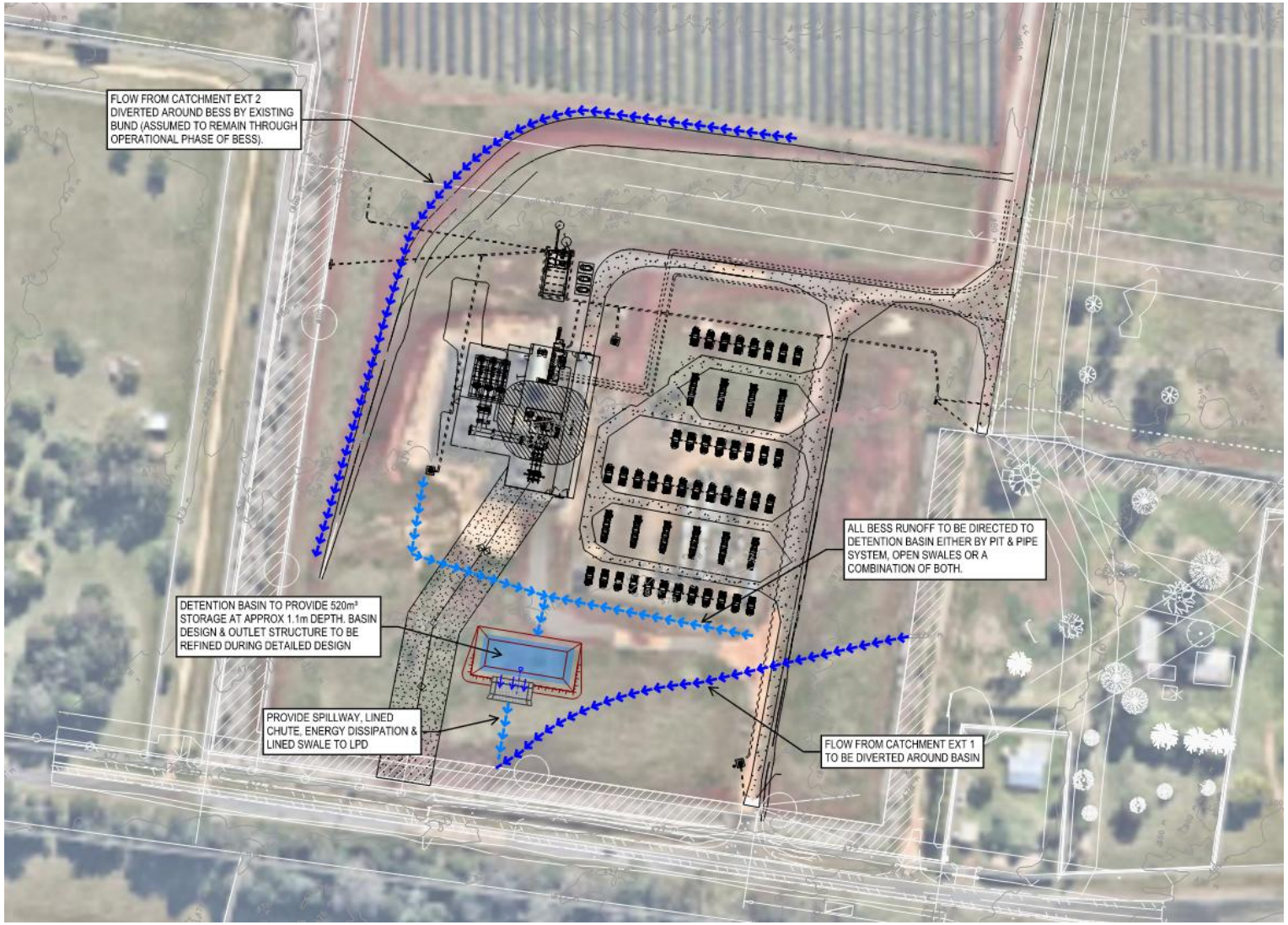



**Figure 5 – Conceptual Detention Basin & Drainage Plan**

# 5 CONCLUSION

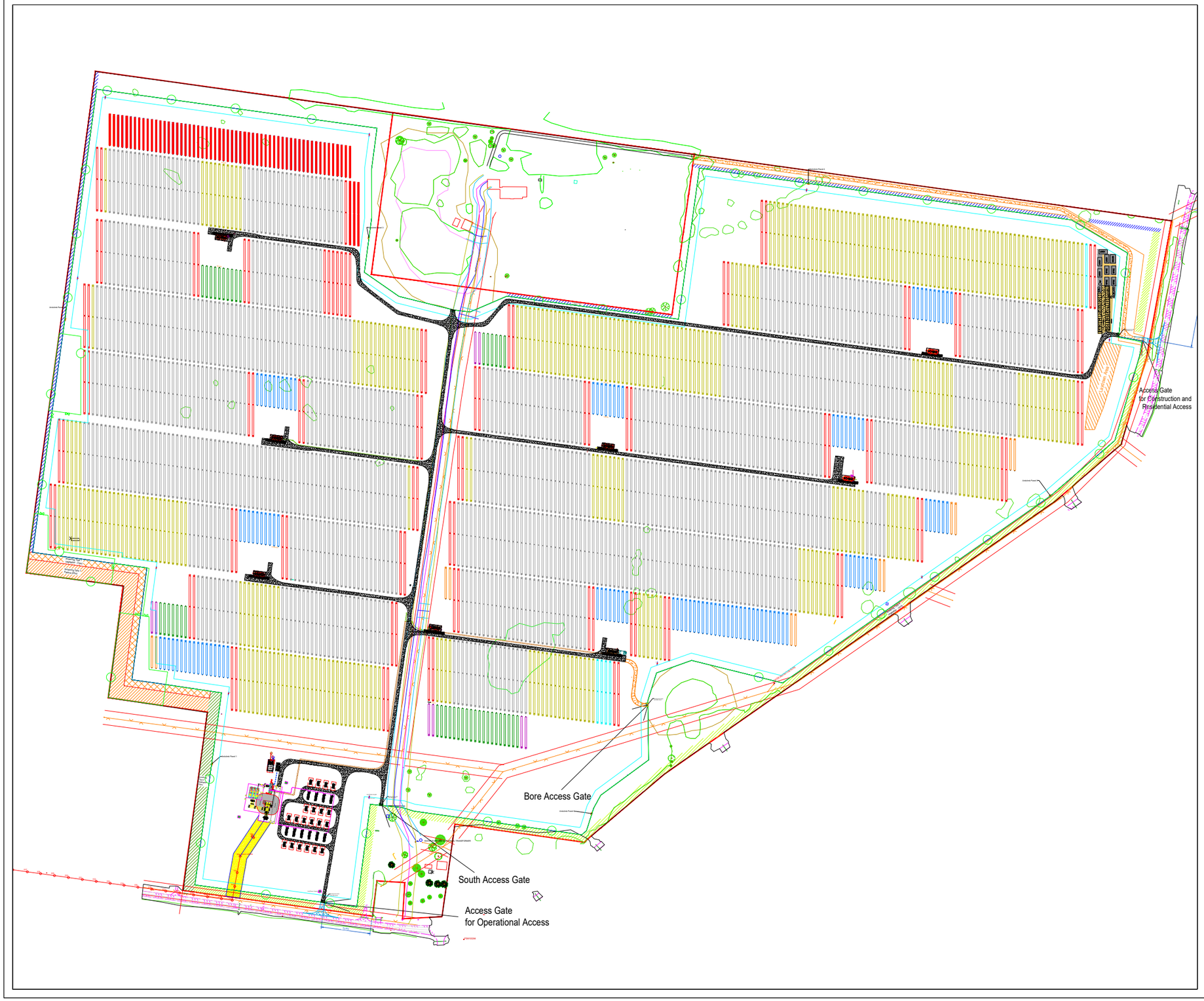
Based on the results of this assessment we have demonstrated the proposed development will not result in any adverse impacts in relation to peak flow rates at the existing LPD to Kingaroy Barkers Creek Road.

An increase in runoff volume can be expected from any development resulting in an increase in impervious surfaces. A detention basin in the southern portion of the proposed BESS (i.e. catchment A) will be required to ensure pre-development peak flow rates are maintained. A detention volume of 520 $m^3$ (at the peak of the 1 % AEP event) is required to achieve this objective over the full range of design storm events.

A staged outlet structure will be required to mitigate all design storm events up to the 1 % AEP, as well as a high flow spillway, and scour protection to ensure runoff can be conveyed to the LPD in a non-erosive manner. The modelling will be revised during the detailed design phase to ensure the outlet structure is suitable for the final basin configuration.

# APPENDIX A

## DEVELOPMENT PROPOSAL




## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | |
|---|---|
| Battery Type | JINKO JKE-5015K-2H-LAA |
| **Power Convertion Group 1 - 10: MV Twin Skid Ingeteam** | |
| Inverters | 2 x INGECON SUN STORAGE 3930TL HV C630 |
| PCS | 1 x INGECON 7860 FSK HV C Series |
| Battery Capacity | 5.015 MWh |
| Capacity per PCS | 2 containers per PCS x 5.015 = 10.03 MWh |
| **TOTALS** | |
| Battery Containers | 20 |
| Total Capacity | 20 x 5.015 MWh = 100.3 MWh |
| ACmax @30$^{o}$C | 58.92 MVA |

| Voltage Level | Frequency | PF |
|---|---|---|
| 22 kV | 50 Hz | |

Metlen Energy & Metals

**MYTILINEOS RSD TECHNICAL & PROCUREMENT DPT**

Tower Four, Level 17,
727 Collins St,
Docklands
VIC 3008, Australia

| Version | Date | Revised By | Reviewed By | Approved By | Description and Notes |
|---|---|---|---|---|---|
| r01 | 21.11.2024 | I.AVG | T.KAR | M.VAS | Battery Container changed to Jinko |
| r00 | 14.05.2024 | S.KAN | T.KAR | M.VAS | BESS Preliminary Layout |

Project Name:
Kingaroy BESS,
South Burnett, Australia

PRELIMINARY

Drawing Name:
BESS Overall Site Plan

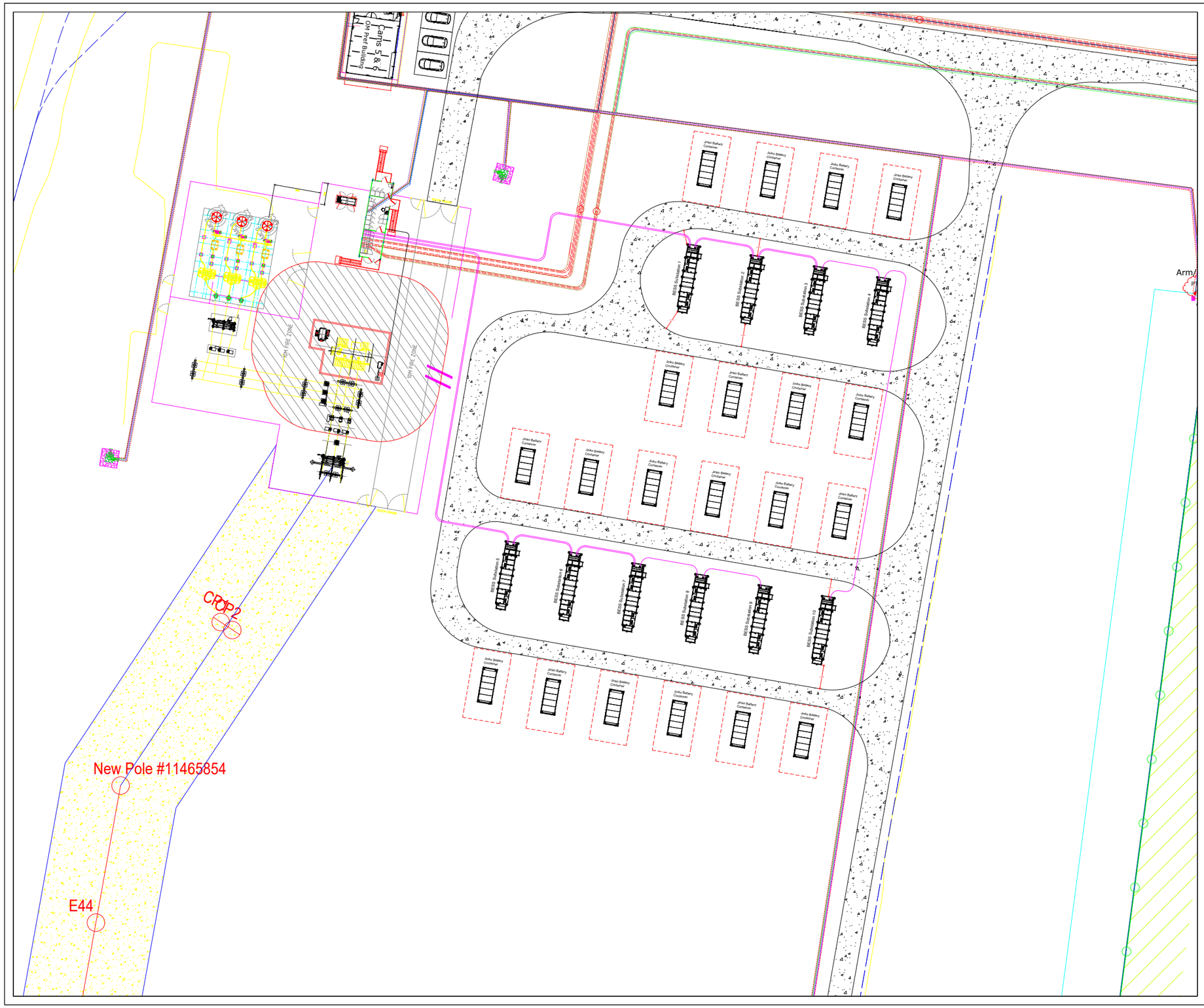
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Date:
28.11.2024

Sheet No:
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## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | | |
|---|---|---|
| Battery Type | JINKO JKE-5015K-2H-LAA | |
| **Power Convertion Group 1 - 10: MV Twin Skid Ingeteam** | | |
| Inverters | 2 x INGECON SUN STORAGE 3930TL HV C630 | |
| PCS | 1 x INGECON 7860 FSK HV C Series | |
| Battery Capacity | 5.015 MWh | |
| Capacity per PCS | 2 containers per PCS x 5.015 = 10.03 MWh | |
| TOTALS | | |
| Battery Containers | 20 | |
| Total Capacity | 20 x 5.015 MWh = 100.3 MWh | |
| ACmax @30$^0$C | 58.92 MVA | |
| Voltage Level | Frequency | PF |
| 22 kV | 50 Hz | |

Metlen Energy & Metals

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| r00 | 14.05.2024 | S.KAN | T.KAR | M.VAS | BESS Preliminary Layout |

Project Name:
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South Burnett, Australia

PRELIMINARY

Drawing Name:
BESS Layout

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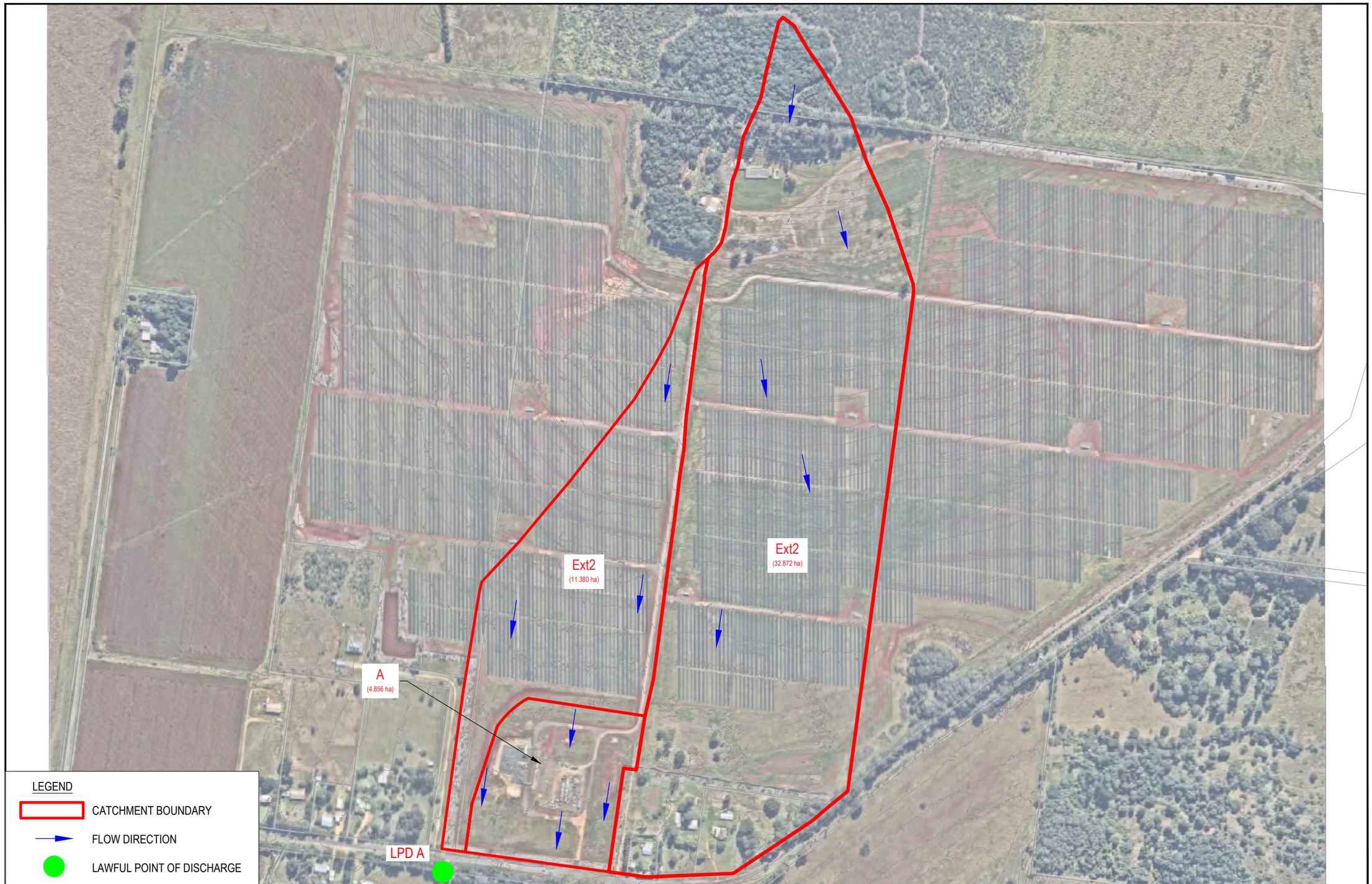
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# APPENDIX B

## CATCHMENT PLANS




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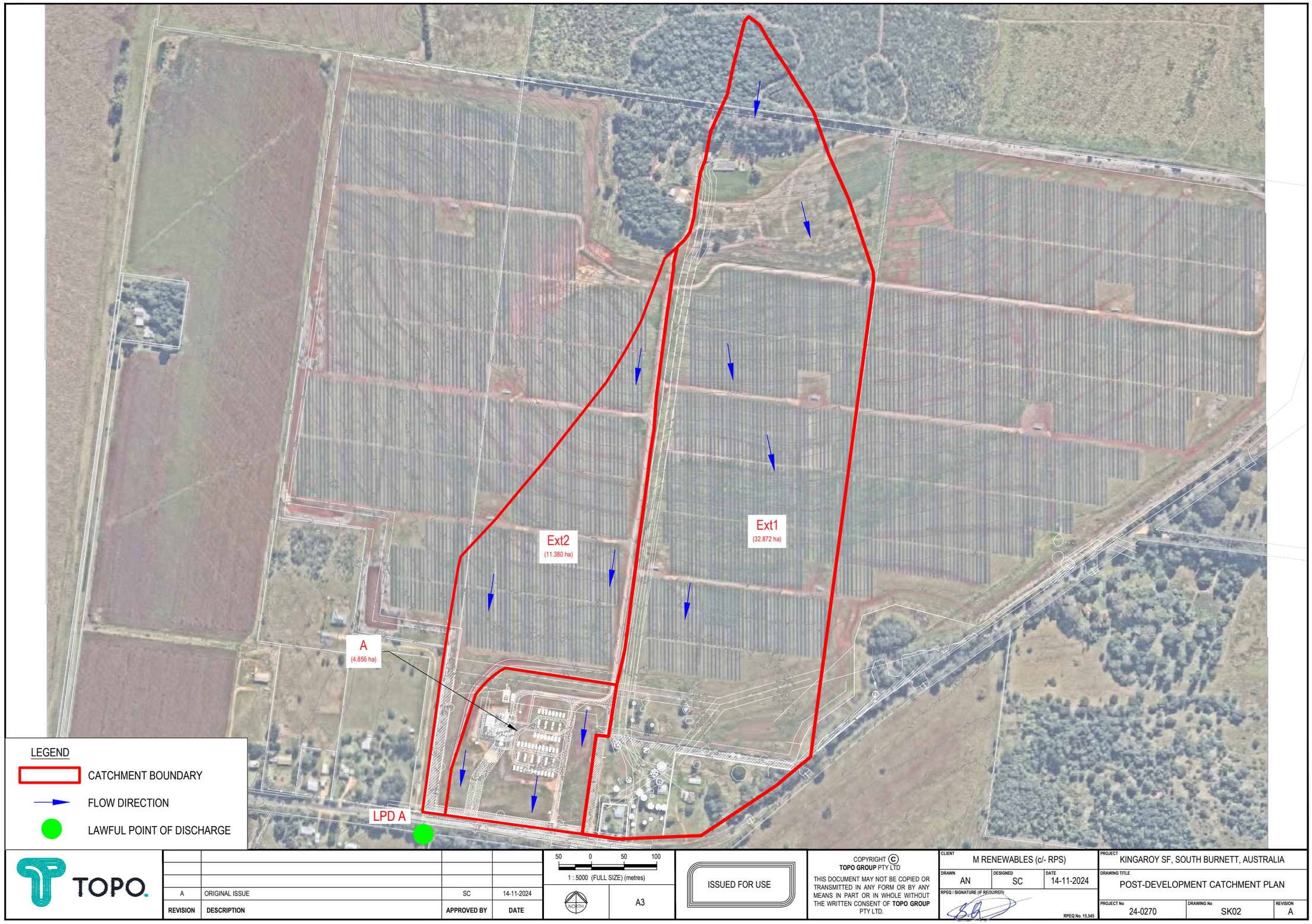
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PROJECT No: 24-0270 | DRAWING No: SK01 | REVISION: A




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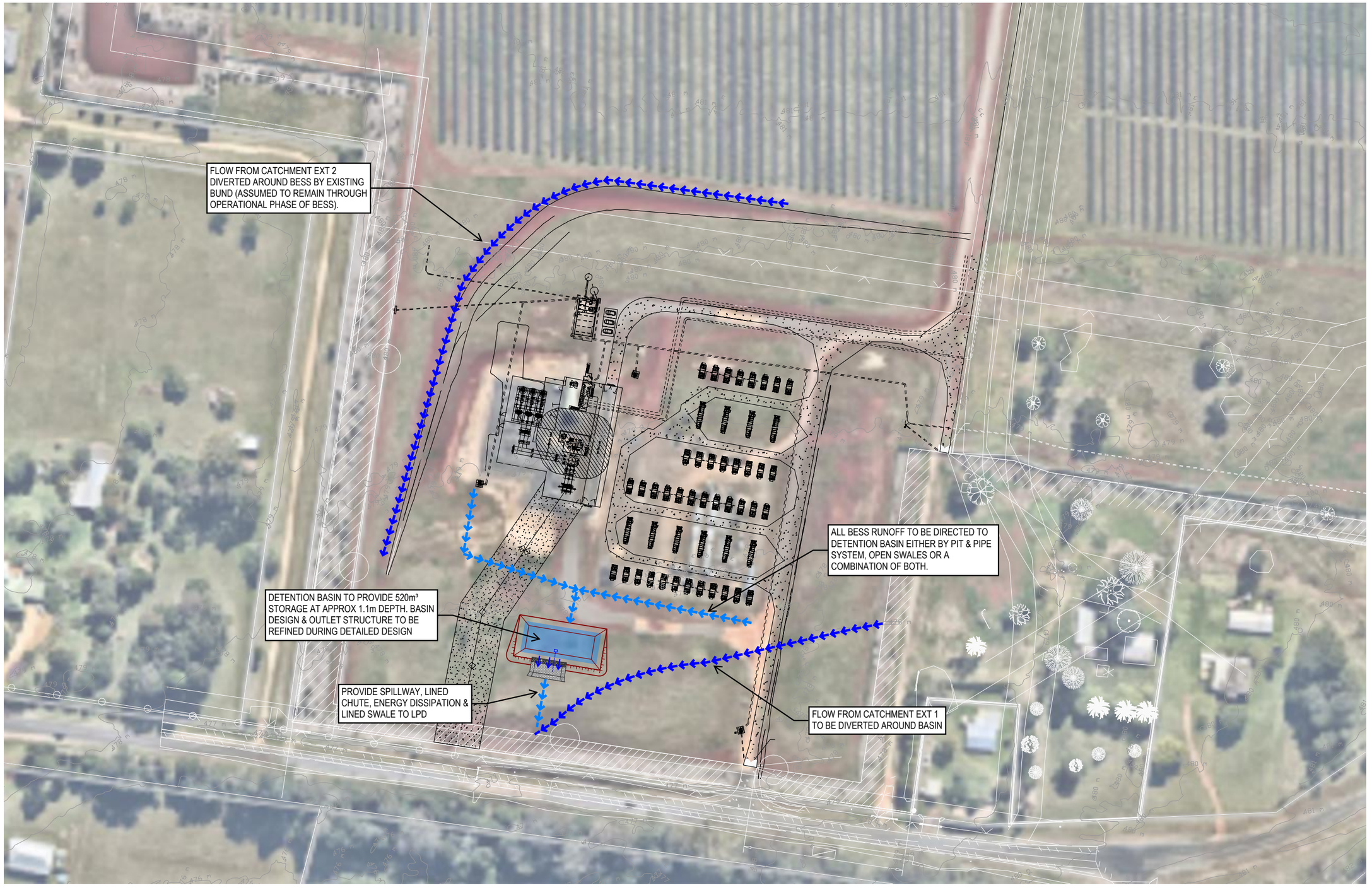
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PROJECT: KINGAROY SF, SOUTH BURNETT, AUSTRALIA
DRAWING TITLE: DETENTION BASIN CONCEPT PLAN
PROJECT No: 24-0270 | DRAWING No: SK03 | REVISION: A

# Kingaroy BESS

## Development Application – Noise Impact Assessment

### M Renewables Australia Developments Pty Ltd c/- RPS

Level 5, 461 Bourke Street,
Melbourne VIC 3000
Australia
Prepared by:

**SLR Consulting Australia**

SLR Project No.: 620.041563.00001

4 March 2025

Revision: 0.2

Making Sustainability Happen

## Revision Record

| Revision | Date | Prepared By | Checked By | Authorised By |
|---|---|---|---|---|
| 0.2 | 4 March 2025 | Benjamin French | Adrian White | Adrian White |
| 0.1 | 3 March 2025 | Benjamin French | Adrian White | Adrian White |
| | Click to enter a date. | | | |
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| | Click to enter a date. | | | |

# Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with M Renewables Australia Developments Pty Ltd c/- RPS (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

# Executive Summary

SLR Consulting Pty Ltd (SLR) was engaged by M Renewables Australia Pty Ltd to provide a noise impact assessment of a proposed 100 MWh Battery Energy Storage System (BESS) collocated by the approved Kingaroy Solar Farm development, approximately 1 km east of Kingaroy, Queensland.

Evaluation of noise impacts on sensitive receivers has been undertaken in accordance with the *Environmental Protection Act 1994* (EP Act) and the *Environmental Protection (Noise) Policy 2019* (EPP(Noise)) subordinate legislation. The key project impact in relation to noise is as follows:

- Noise from operational activities: The critical sensitive receivers are situated on Kingaroy Bakers Creek Road to the east and west of the Project, the closest being approximately 170 m east of the centre of the BESS. Operational compliance can be achieved for all periods when the inverters operate at 50% cooling load during the night period. Cumulative impacts from the approved Kingaroy Solar Farm to the critical receivers was also assessed and compliance with the EPP(Noise) Acoustic Quality Objectives was demonstrated during the day period when the solar farm and BESS may operate simultaneously.

All plant, equipment and design layout will be reviewed during the detailed design stage to ensure that compliance with the noise criteria is continued to be achieved as the acoustic performance of the plant and layout is refined.

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# 1.0 Introduction

SLR Consulting Pty Ltd (SLR) was engaged by M Renewables Australia Developments to provide a noise impact assessment for the proposed Kingaroy BESS (the Project): a 100 MWh battery energy storage system (BESS) collocated with the approved Kingaroy Solar Farm development.

The Project is located on lot 5 SP219361, approximately 1 km east of the town of Kingaroy, Queensland.

The BESS will consist of 20, 5-MWh battery containers and 20 inverter racks.

# 2.0 Project Area

The proposed site and closest sensitive receivers are presented in **Figure 1**.

The Project is located immediately south of the approved Kingaroy Solar Farm and east of the substation. The key noise sources within the solar farm are 29 inverters distributed around the PV arrays.

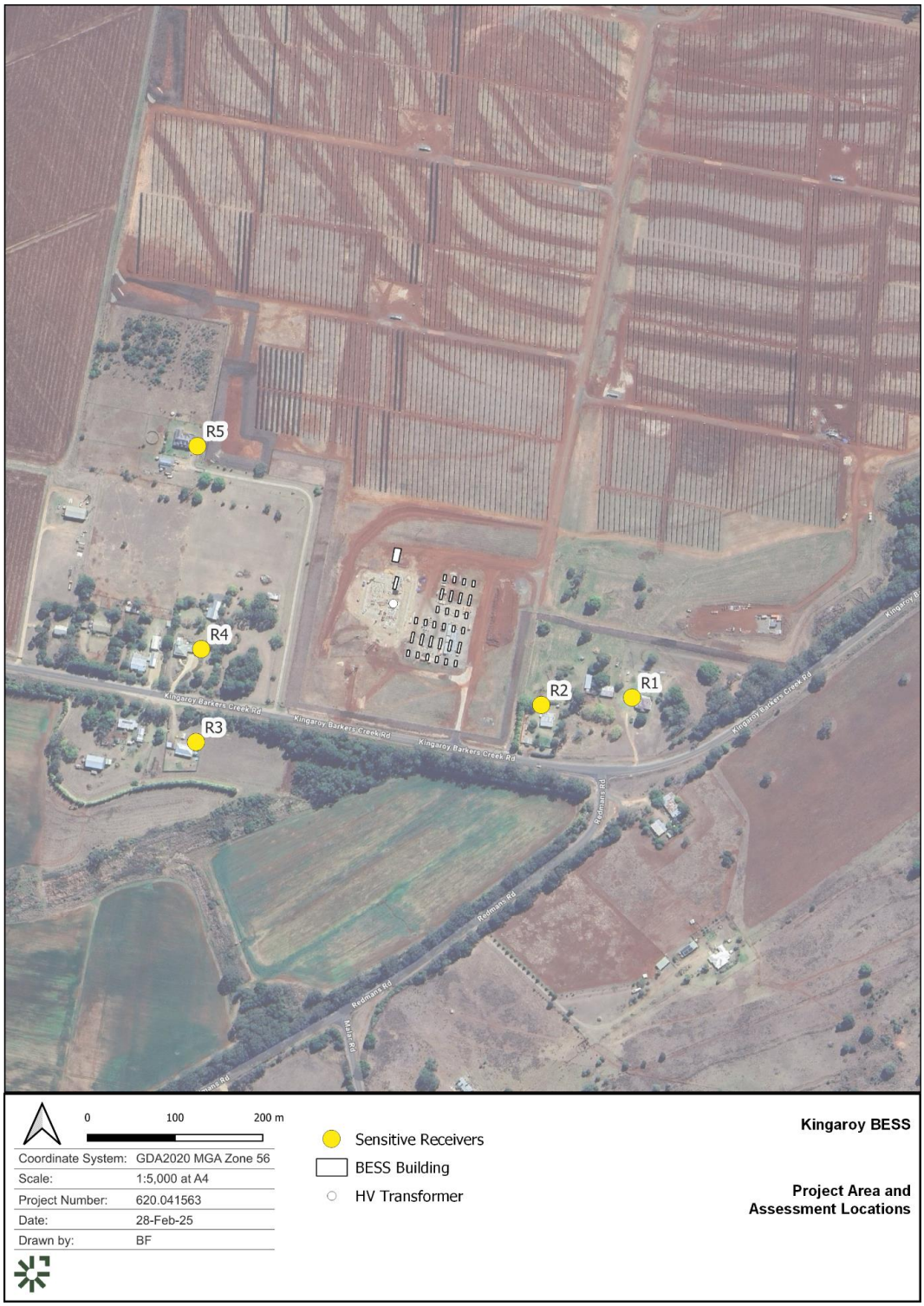
The land surrounding the Project is predominantly used for farming, crops and grazing. Site is accessed via Kingaroy Barkers Creek Road. The closest noise sensitive receivers front Kingaroy Barkers Creek Road; the closest properties adjoin the Project boundary.

**Table 1** summarises the closest noise sensitive receiver locations (the easting and northing are given as UTM coordinates GDA 2020 Zone 56) and the distance to the centroid of the Project site. Compliance at these receivers results in compliance at all other receiver locations.

**Table 1 Noise Sensitive Receiver**

| Receiver | Easting | Northing | Distance to Project Centroid, m |
|---|---|---|---|
| R1 | 388471 | 7063607 | 250 |
| R2 | 388368 | 7063594 | 170 |
| R3 | 387976 | 7063533 | 300 |
| R4 | 387977 | 7063639 | 250 |
| R5 | 387962 | 7063870 | 320 |

**Figure 1 Project Area and Assessment Locations**



# 3.0 Project Criteria

## 3.1 Operational Noise

Noise targets for this project are derived from the Environmental Protection (Noise) Policy.

### 3.1.1 Environmental Protection (Noise) Policy

The EPP(Noise) is a subordinate legislation under the EP Act and the environmental values to be enhanced or protected under the EPP(Noise) are:

- The qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems.
- The qualities of the acoustic environment that are conducive to human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to do any of the following: sleep, study or learn or be involved in recreation, including relaxation and conversation.
- The qualities of the acoustic environment which are conducive to protecting the amenity of the community.

The EPP(Noise) contains acoustic quality objectives (AQO) for receivers potentially sensitive to noise. Where the overall level of noise at the receivers, from all sources but excluding road and rail transport noise, are within the AQO, the environmental values are achieved. The relevant AQO for the noise sensitive receivers and land use surrounding the Project are presented in **Table 2**. It is anticipated that project operations may require continuous operation of plant and equipment, and that noise emissions will be relatively uniform and constant (no sudden changes in level or character) as such this preliminary assessment has referenced the 1-hour $L_{Aeq}$ AQO to assess the noise emissions from Project noise sources.

**Table 2: EPP(Noise) Acoustic Quality Objectives**

| Receiver Type | Time of Day | Acoustic Quality Objective, dBA | | |
|---|---|---|---|---|
| | | $L_{Aeq,adj,1hr}$ | $L_{A10,adj,1hr}$ | $L_{A1,adj,1hr}$ |
| Residential dwelling (outdoors) | Day time and Evening | 50 | 55 | 65 |
| Residential dwelling (indoors) | Day time and Evening | 35 | 40 | 45 |
| | Night time | 30 | 35 | 40 |

To assess noise levels to the internal (indoor) AQO at residential dwellings, the external noise levels predicted by the noise modelling are adjusted by a façade correction, which accounts for the reduction of noise achieved by the building (with windows open). For this assessment, a conservative 7 dB façade noise reduction has been applied in line with the DES guideline titled 'Noise and Vibration EIS Information Guideline', where, at page 3, it states:

> *When assessing outdoor to indoor noise attenuation at sensitive receptors … use an outdoor to indoor attenuation value of 7dB, which is appropriate for typical Queensland buildings with open windows.*

Accordingly, internal residential noise levels would be expected to be within the indoor AQO where external noise levels are not more than $L_{Aeq,adj,1hr}$ 42 dB during the day and evening and $L_{Aeq,adj,1hr}$ 37 dB during the night-time.

In consideration of the above the resulting external screening criteria for the Project are $L_{Aeq,adj,1hr}$ :

- Day = 42 dBA (based on residential (internal) AQO),
- Evening = 42 dBA (based on residential (internal) AQO) and
- Night-time = 37 dBA.

For this assessment, operational noise levels from the BESS site are expected to be steady-state in nature throughout a typical assessment period (i.e. noise emission levels are fairly constant for a 1-hour period). The presence of short-term, intermittent noise events, either of a reduced or elevated noise level are not expected. For this reason, the $L_{Aeq}$ noise criteria parameter is the main assessment criteria. Operational events where the $L_{A1}$ noise criteria parameter would be necessary are expected to be limited, and not assessed by the operational scenarios presented in this report.

# 4.0 Noise Modelling

## 4.1 Methodology

A 3D noise model was constructed within the modelling software SoundPLAN 8.2 to predict noise levels at the nearby sensitive receivers.

Noise modelling was conducted using the ISO 9613-2[1] algorithms incorporated in the noise modelling software. The ISO 9613-2 algorithm predicts the A-weighted sound pressure levels under meteorological conditions favourable to propagation from sources of known sound power levels. This enhanced propagation is equivalent to downwind propagation or a moderate ground-based temperature inversion. The model also includes attenuation due to air absorption, ground attenuation and shielding.

## 4.2 General Modelling Assumptions

The following general assumptions were made based on best-practice modelling method to suit the project:

- The reflection-order of other buildings was set to three (3), indicating that the noise model allowed for three (3) reflections off of façades.
- Source heights were set according to the source item.
- Receivers were set 1.5 m above ground level.
- All equipment were assumed to be in operation for the entire assessment period.
- Ground topography within 3km of the proposed site was sourced from publicly available 5 metre elevation models published by the QLD Government Spatial Services.
- Ground absorption was modelled by a single number parameter between 0 (hard - reflective) and 1 (soft – absorptive). The BESS and substation hardstands were modelled as hard ground (0), all other ground surfaces were modelled with a parameter of 0.6, appropriate for rural land.

[1] ISO 9613-2:1996 *Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation*





## 4.3 Scenarios

The following scenarios are based on typical OEM battery and inverter performances. The battery container data is based on the Jinko SunTera 5.015 MWh BESS and the inverter is based on the Ingecon Sun Storage 3Power HV C Series. If the original equipment manufacturer (OEM) is changed, the acoustic assessment should be revisited to ensure that compliance with the EPP(Noise) is maintained.

All equipment items are assumed to be in operation for the entire assessment period, thus 15 minute and 1 hour noise data are identical.

Noise emissions of the BESS equipment is typically dominated by cooling noise sources, which is dependent on the percentage of maximum power (charge/discharge) and the subsequent temperatures, both ambient and being generated by the equipment.

The BESS site is assumed to operate at any time 24 hours, 7 days a week. The BESS will typically charge during the middle of the day, when energy prices are lowest and discharge during peak demand, usually in the evening between 5 pm and 9 pm. However, the BESS may sometimes discharge during the morning peak period, 5 am to 9 am, during the final hour of the night period.

The inverters have been sized to operate at 100% cooling load during the day period and at reduced cooling loads during the evening and night period due to cooler ambient temperatures. The BESS can operate at 70% cooling load during the evening and 50% cooling load during night period. As day and evening Acoustic Quality Objectives are both 42 dBA $L_{eq}$, 1h, compliance with the day operations, when the inverters are loudest, implies compliance during the evening as well. The battery containers are assumed to operate at 100% load during charging and discharging.

The sound power level for the high voltage transformer was derived based on the rated MVA for this BESS site and reference to Australian Standard 60076.10:209, reduced maximum sound level. The spectrum for the transformers were adopted from reference data by Bies and Hanson (11.16).

Therefore the following day and night scenarios are assessed:

- **Scenario 1:** Day period - Inverter 100% load
- **Scenario 2:** Night period – Inverter 50% load

**Table 3** shows the quantity and sound power level of the equipment for each scenario.

In addition to the two operational scenarios, the inverters in the adjacent Kingaroy Solar Farm emit noise during the day period; cumulative noise impacts from the simultaneous operation of the solar farm and BESS are assessed in **Section 5.2**.

**Table 3 Equipment and Sound Power Levels**

| Item | Qty | Sound Power Level (SWL), per unit $L_{eq\ 15\ min}$, dBA |
|---|---|---|
| Inverter | 20 | 85 Day time (100% load)<br>78 Night time (50% load) |
| Battery container | 20 | 82 |
| 60 MW HV Transformer | 1 | 83 |

# 5.0 Assessment Results

## 5.1 Operational Noise Results

### 5.1.1 Noise Characteristics

The EPP (Noise) contains provisions for adjustments for undesirable noise characteristics such as tonality and impulsiveness. If one or more of these characteristics are present at the receiver, then an adjustment is applied to the overall level.

The following outlines the noise characteristics and discusses whether the adjustments are relevant to this assessment.

*Tonality*

Tonality is determined objectively in accordance with Australian Standard AS1055.2018 at the receiver position and evaluated in context with the ambient environment.

Battery units and inverters are generally cooled by fan forced HVAC units. Tonal characteristics in the mid frequencies (100 to 400 Hz) associated with fan blade frequency are common in BESS equipment.

In addition to mid frequency tonality, inverters may also be exhibit high frequency tonal characteristics associated with electrical switching (observed as a ringing sound). High frequency tones dissipate quickly due to air absorption over a relatively short distance.

The noise measurement data provided by the battery OEM, Jinko, for SunTera the does not exhibit tonal characteristics. Ingecon provided only overall levels for the Sun Storage 3Power HV C Series inverter. It is not clear if the Ingecon inverter contains tonal characteristics.

The assessment was conducted on the basis that the inverter is not tonal. Tonality will be confirmed during the detailed design phase when an equipment manufacturer is confirmed.

*Impulsiveness*

The impulsiveness characteristic refers to a dominant sudden pressure peak, or series of peaks. An impulsive adjustment is applied if the difference between the A-weighted Fast response and Impulse response is greater than 2 dB. The adjustment is equivalent to the difference up to a maximum of 5 dB. Noise due to cooling the BESS is not impulsive in nature.

Therefore, no characteristic adjustments have been applied to the following results.

### 5.1.2 Assessment Results

The predicted noise levels at the identified closest receivers are assessed against the EPP(Noise) Acoustic Quality Objectives (AQO) for the day and night period scenarios. **Table 4** and **Table 5** shows the predicted noise levels and margin of compliance with the relevant day (42 dBA) or night (37 dBA) AQOs respectively.

Compliance with the EPP(Noise) AQOs is predicted at the closest receivers during the day and night periods.

Noise contour maps for Scenario 1 and Scenario 2 are show in **Figure 2** and **Figure 3** respectively.





**Table 4 Scenario 1: Day Period Assessment Results (AQO 42 dBA)**

| Receiver | Predicted Noise Level, dBA | Compliance Margin, dBA |
|---|---|---|
| R1 | 38 | 4 |
| R2 | 41 | 1 |
| R3 | 34 | 8 |
| R4 | 36 | 6 |
| R5 | 34 | 8 |

**Table 5 Scenario 2: Night Period Assessment Results (AQO 37 dBA)**

| Receiver | Predicted Noise Level, dBA | Compliance Margin, dBA |
|---|---|---|
| R1 | 35 | 2 |
| R2 | 35 | 2 |
| R3 | 28 | 9 |
| R4 | 32 | 5 |
| R5 | 32 | 5 |

## 5.2 Cumulative Noise

Predicted noise level of the Kingaroy Solar Farm at the assessed receivers was taken from the Kingaroy Solar Farm – Noise & Vibration Impact Assessment prepared by the Assured Monitoring Group[2] and logarithmically added to the Kingaroy BESS noise contributions. The resulting cumulative level assessed against the day period AQO, as shown in **Table 6**, noting that the solar farm does not operate during the night period. Compliance with the EPP(Noise) AQO is demonstrated for cumulative noise from the Project and adjacent solar farm.

**Table 6 Cumulative Noise Assessment**

| Receiver | Predicted Noise Levels, dBA | | | Compliance Margin |
|---|---|---|---|---|
| | Kingaroy BESS | Kingaroy Solar Farm | Overall | |
| R1 | 38 | 37 | 41 | 1 |
| R2 | 41 | 37 | 42 | 0 |
| R3 | 34 | 31 | 36 | 6 |
| R4 | 36 | 33 | 38 | 4 |
| R5 | 34 | 37 | 39 | 3 |

[2] Assured Monitoring Group (AMG), 11 December 2017, Kingaroy Solar Farm – Noise & Vibration Impact Assessment. Project ID 11203.





**Figure 2 Scenario 1 Day Period Operational Noise Contours**

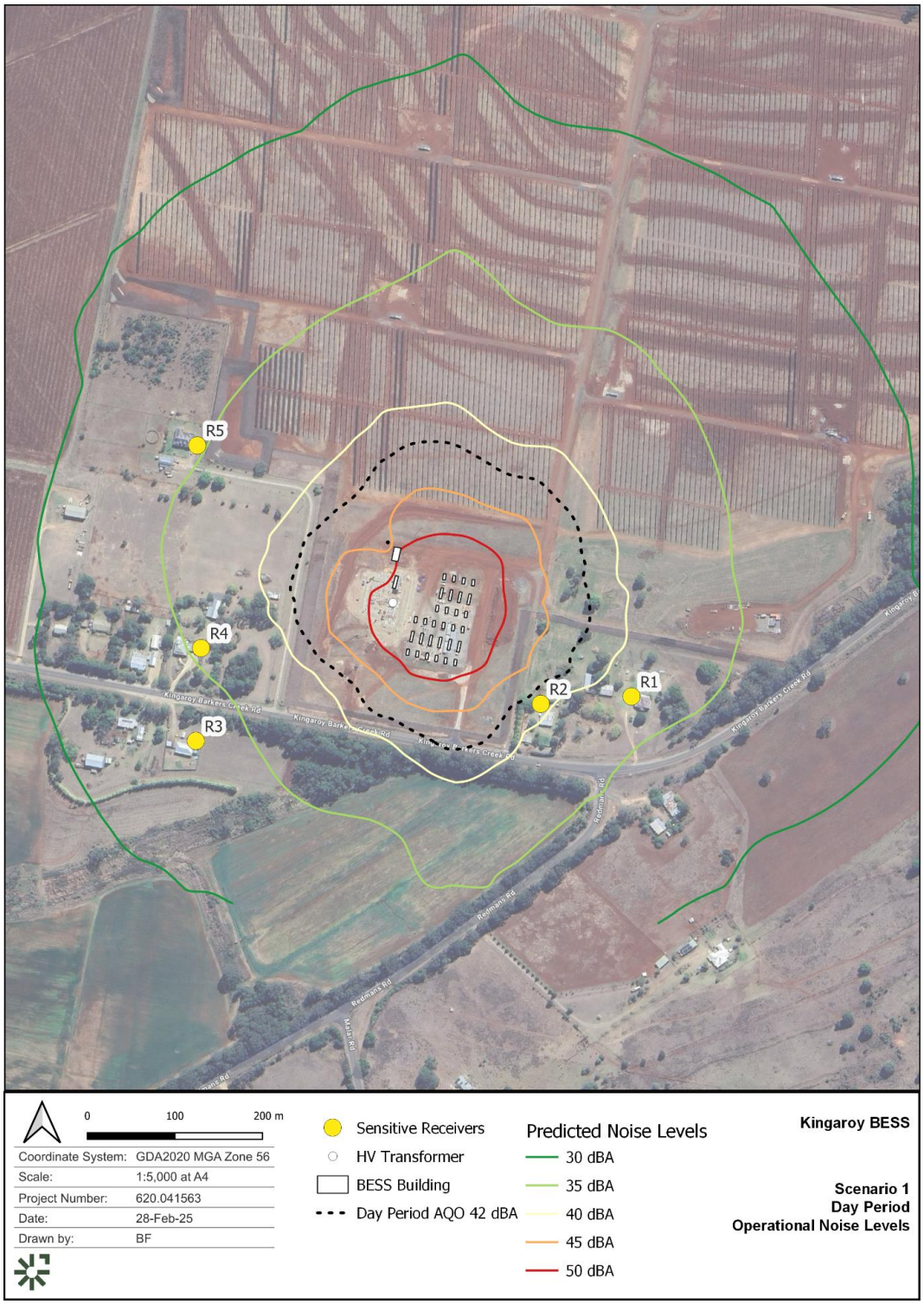
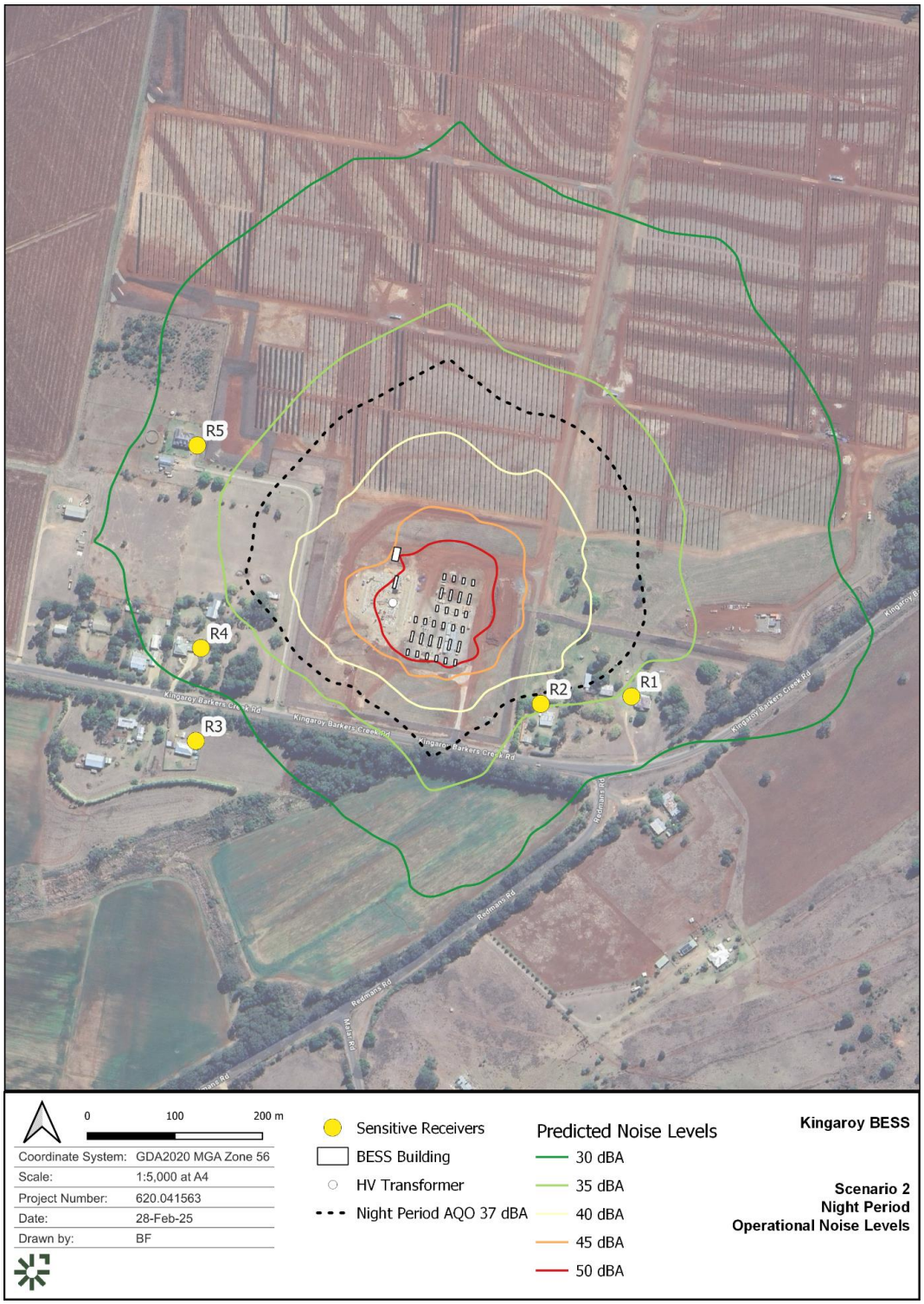


**Figure 3 Scenario 2 Night Period Operational Noise Contours**



# 6.0 Closure

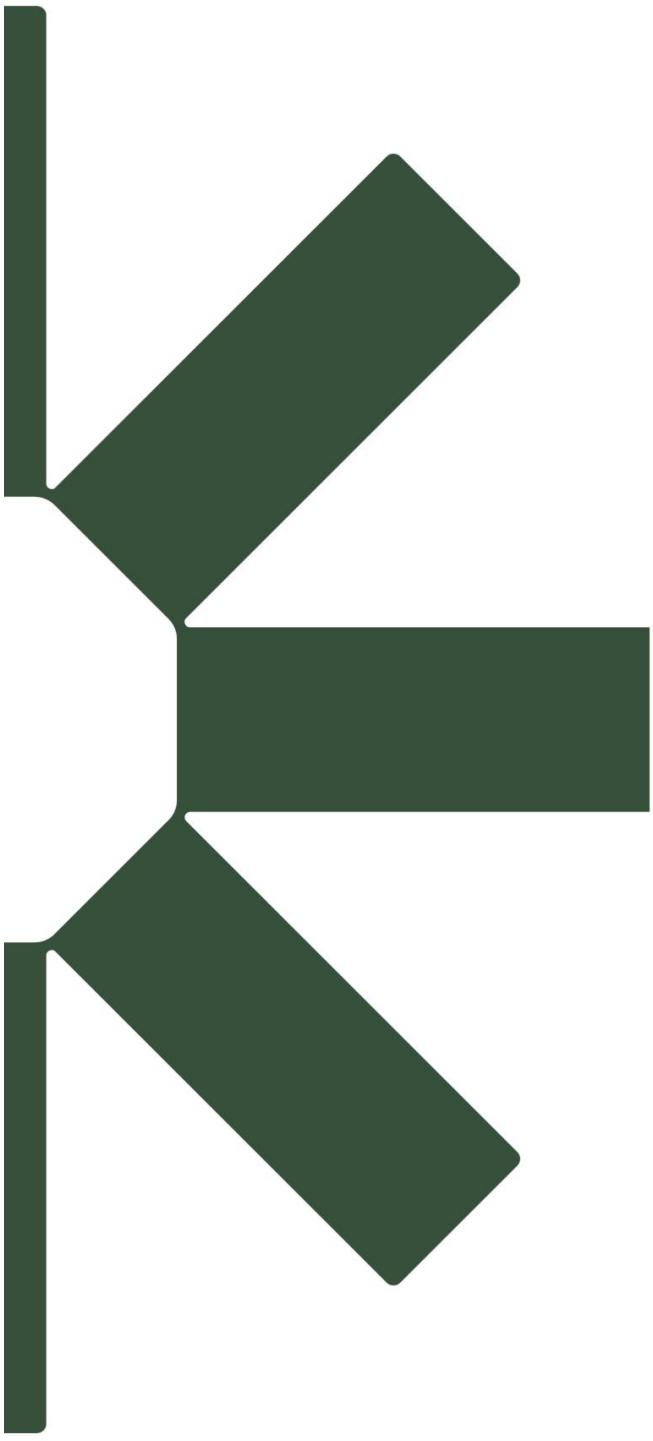
This noise impact assessment presents applicable noise criteria, assessment methodology, and results to demonstrate the feasibility of achieving compliance with the Project's noise criteria, as prescribed by EPP(Noise) Acoustic Quality Objectives (AQO).

With the assessed BESS equipment, operational compliance with the EPP(Noise) AQOs is predicted to be achieved at all times when the inverter cooling load is operating at 100% during the day and evening period and 50% at night. Cumulative noise impacts from the adjacent approved solar farm development were also assessed and compliance with the AQOs demonstrated.

All plant, equipment and design layout will be reviewed during the detailed design stage to ensure that compliance with the noise criteria, including cumulative noise, is maintained as the acoustic performance of the plant and layout is refined.







Making Sustainability Happen

# Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

## Traffic Impact Assessment

### M Renewables Australia Developments Pty Ltd

Level 5 461 Bourke Street,
Melbourne, VIC 3000

Prepared by:

**SLR Consulting Australia**

SLR Project No.: 620.041577.00001

18 February 2025

Revision: 3.0

Making Sustainability Happen

## Revision Record

| Revision | Date | Prepared By | Checked By | Authorised By |
|---|---|---|---|---|
| 1.0 | 4 December 2024 | Naristi Neale | Raymond Logan | Raymond Logan |
| 2.0 | 9 December 2024 | Naristi Neale | Raymond Logan | Raymond Logan |
| 3.0 | 18 February 2025 | Naristi Neale | Raymond Logan | Raymond Logan |

# Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with M Renewables Australia Developments Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

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**Appendix A Development Plans**
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**Appendix C Residential Access Sight Distance Assessment (Premise SISD, 2019)**
**Appendix D Traffic Flow Diagrams**
**Appendix E Turn Warrant Assessment**
**Appendix F Swept Path Assessment**
**Appendix G Code Assessment**

# 1.0 Introduction

## 1.1 Context

SLR Consulting Australia Pty Ltd (SLR) has been engaged by M Renewables Australia Developments Pty Ltd (M Renewables) to prepare a Traffic Impact Assessment (TIA) for a Kingaroy Solar Farm Battery Energy Storage System (BESS) at Kingaroy, Queensland.

The existing Kingaroy Solar Farm spans Lots 4 and 5 on SP219361, and Lot 228 on FTZ37463. The proposed BESS facility will be located on Lot 5 of SP219361. The development plans, as prepared by M Renewables, are provided in **Appendix A**.

## 1.2 Background

A Solar Farm has been developed on the subject site of which construction commenced in 2023 and has since been completed. As part of the Solar Farm development, Premise conducted a traffic assessment, which was submitted on 24 October 2017 (Premise TIA, 2017) and is attached at **Appendix B**. Further to the application, a sight distance assessment was also conducted for the development construction access (the location of the access can be seen in **Figure 2**), which was submitted on 18 June 2019 (Premise SISD, 2019) attached at **Appendix C**.

## 1.3 Assessment Scope

This TIA report assesses the compliance of the development against Council and State policies and codes and assesses the impacts of the proposed development on the surrounding transport networks. The TIA identifies appropriate mitigating measures required to support the development and provides an assessment of the transport aspects of the development against the requirements of:

- South Burnett Regional Council (SBRC, Council) – the Planning Scheme Version 2.0, 2017 (Plan 2017).
- Department of Transport and Main Roads (DTMR) – Guide to Traffic Impact Assessment (GTIA).

The GTIA in particular is recognised as establishing the appropriate methodologies for assessing and managing a project's potential road impacts. The objective of this TIA is to summarise the project's road based transport tasks, identify the potential impacts of the project on the external road network (both the state and council-controlled road networks) and where appropriate, identify management and mitigation strategies.

Besides a check of swept paths on internal roads, the TIA does not consider the design of the proposed internal infrastructure including elements such as parking areas that may ultimately be required.

## 1.4 Report Structure

The structure of this TIA report is shown in **Table 1**.

**Table 1 TIA Report Structure**

| Section | Title | Description |
|---|---|---|
| 1 | Introduction | Identifies the context of the project. |
| 2 | Project Description | Describes the project including location, site design and access arrangements. |
| 3 | Existing Road Conditions | Describes the existing transport network including traffic volumes and crash history. |
| 4 | Future Road Network Planning | Details future government road planning including any impacts to the site. |
| 5 | Assessed Traffic Demands | Summarises the anticipated traffic demand of the proposal. |
| 6 | Design Considerations | Outlines the technical analysis undertaken to confirm the appropriateness of the proposed development from a road safety and traffic engineering perspective. |
| 7 | Road Safety Assessment | Outlines the technical analysis to assess the safety of the identified impact assessment area. |
| 8 | Code Assessment | Evaluates the traffic and transport aspects of the proposed development against the State Code 1 and 6 of the State Development Assessment Provisions (SDAP). |
| 10 | Conclusions | Summarises the findings of the assessment and recommends approval conditions (where appropriate). |

# 2.0 Project Description

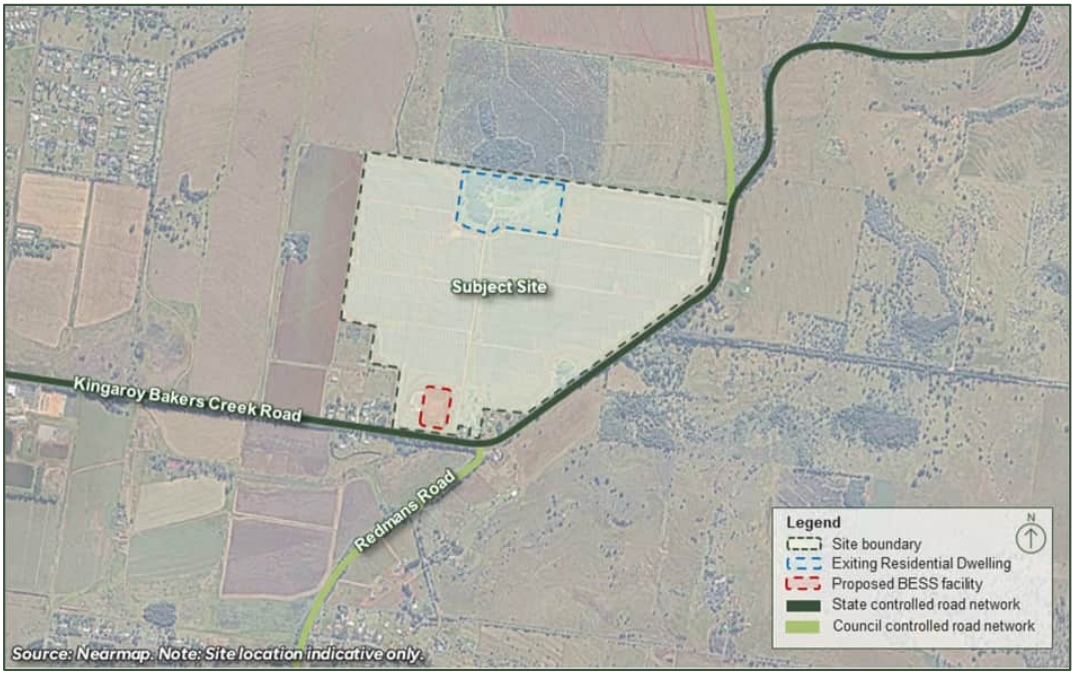
## 2.1 Overview

It is proposed to expand the existing Kingaroy Solar Farm to include a Battery Energy Storage System (BESS). The development area is located within the southern section of the lot (see **Figure 1**). The purpose of the BESS facility is to store energy during off-peak periods for later use, notably being able to be discharged during periods of peak energy demand or low solar energy production.

## 2.2 Site Context

The subject site is located to the east of Kingaroy, approximately 4km from the town centre. The site contains the Solar Farm with a residential dwelling located in the centre on the northern boundary of the site. The site location in its local context can be seen in **Figure 1**.

**Figure 1 Site Location in the Local Context**




## 2.3 Project Program

### 2.3.1 Construction Phase

For traffic generation purposes, it has been assumed the development will be constructed over a 2 to 5 month period with construction commencing in 2026. The majority of the construction work will occur within the concentrated timeframe with some oscillatory works occurring during commissioning. The expected peak number of heavy vehicles on any one day has been used for trip generation purposes and are discussed in more detail in **Section 5.4.1** of this report.

### 2.3.2 Operational and Decommissioning Phase

The development is expected to be operational from 2027 and will operate for approximately 30 years. It is anticipated that the proponent is obliged to either repower or decommission the site and rehabilitate the site at the end of its operational life. Decommissioning of the BESS would include disassembly and removal of associated infrastructure from the site, returning the land to its original use.

It is important to note that the construction phase of any BESS site will have the largest traffic impacts, compared to their impacts during the operational and decommissioning phases. Based on this, no detailed traffic modelling has been undertaken for the operational and decommissioning phases, assuming that sufficient infrastructure is developed for the construction phase.

## 2.4 Site Access

Vehicular access to the site is currently obtained via two accesses located in via Kingaroy Bakers Road (see **Figure 2**):

- On the southern border, used as the operation access to the Solar Farm.
- On the eastern border, used as the access to the residential dwelling.

DTMR approved the eastern access for construction of the Solar Farm. As a result, it is proposed to utilise the eastern access for construction of the BESS facility. The site access and internal site arrangements, with internal roads and intersections can be seen in the development plan at **Appendix A**.

**Figure 2 Site Accesses**



## 2.5 Traffic Routes

Generally, it is assumed that larger plant, equipment and Battery components will come from the Port of Brisbane (approximately 250km southeast of the site). The majority of staff are expected to travel from Kingaroy (from the west).

Key materials movements are assumed to originate from the Port of Brisbane or the wider Brisbane area. The route from the port will be via the Bruce Highway, the D'Aguilar Highway, then though Kingaroy to access the site via Kingaroy Bakers Creek Road. This is an approved heavy vehicle route (up to and including a 26m B-double), however the approved heavy vehicle route terminates approximately 3.5km to the west of the construction access. The proponent will be required to obtain a notice or permit from the National Heavy Vehicle Regulator which specifies the route of operation for any proposed 26m B-doubles that are required to access the subject site. No Oversize Overmass vehicles will be utilised during construction.

## 2.6 Construction Phase

### 2.6.1 Construction Activities

For the purposes of forecasting peak development traffic demands associated with the construction stage, the following construction activities are anticipated to generate traffic on the external road network:

- Site clearance and establishment
- Construction machinery deliveries
- Equipment and material deliveries, and
- Workforce transportation.

Based on information supplied by M Renewables, the peak number of heavy vehicles on any day expected to travel to site during the construction phase is 13 vehicles per day i.e. 13 in and 13 out. A more detailed breakdown of the anticipated heavy vehicle movements is provided in **Section 5.4.1** of this report.

### 2.6.2 Construction Workforce

For the construction workforce, based on information received from M Renewables, the peak number of light vehicles on any day expected to travel to site during the construction phase is 30 vehicles per day i.e. 30 in and 30 out. A more detailed breakdown of the anticipated light vehicle movements is provided in **Section 5.4.2** of this report. It has been assumed that parking for the construction workforce will be provided on site during the construction phase.

## 2.7 Operational Phase

### 2.7.1 Operational Activities

Once the proposed development is operational, there will be no activities that require a significant additional workforce to be present on site. It is understood that for the majority of the development's life, the operational phase will involve a range of preventative, corrective and condition-based maintenance activities which will entail inspecting and servicing the BESS facility including the associated electrical network and maintaining the internal road infrastructure.

### 2.7.2 Operational Workforce

All these activities will be undertaken by the employees currently on site at the Kingaroy Solar Farm and will therefore not have an additional impact from a transport point of view.

# 3.0 Existing Road Conditions

## 3.1 Road Network

The road network in the vicinity of the site can be seen on **Figure 1**. A description of their typical characteristics is provided in **Table 2**.

**Table 2 Key Roads**

| Section | Road Authority | Formation | Posted Speed Limit | Approved Heavy Vehicle Type |
|---|---|---|---|---|
| Kingaroy Bakers Creek Road | DTMR | One lane per direction with unsealed shoulders | 80km/h | General access (B-Double 25/26m ends ~1.7km west of site |
| Schellbachs Road | SBRC | One lane per direction with unsealed shoulders | | General access |
| Redmans Road | | One lane per direction with unsealed shoulders | | |

## 3.2 Traffic Volumes

Historic traffic data was based on information sourced from DTMR's Annual Average Daily Traffic (AADT) Segment Reports of traffic counting station in proximity of the site. The traffic volumes are presented in **Section 5.1** of this report.

## 3.3 Crash History

Historic traffic crashes recorded in proximity to the site was sourced from DTMR's data publicly available online. Crash data for the latest available 5-year period was investigated, 1 July 2018 – 30 June 2023. An interrogation of the crash data including consideration of the potential for traffic associated with the project to exacerbate any observed crash trends is presented in **Section 7.1** of this report.

# 4.0 Future Network Planning

## 4.1 State Controlled Road Network Planning

DTMR's *Queensland Transport and Roads Investment Program (QTRIP)* has been reviewed to identify if any works are planned on the state-controlled transport network that are of relevance to the assessment documented herein. The review identified that there are two projects planned on the D'Aguilar Highway in the vicinity of the subject site. These programmed works are summarised in **Table 3**. All identified projects are located more that 5km from the subject site.

**Table 3 Queensland Transport and Roads Investment Program Summary – D'Aguilar Highway**

| ID | Location on D'Aguilar Highway (Yarraman – Kingaroy) | Works | Indicative Total Cost | Indicative Completion | Approx. Distance from Site |
|---|---|---|---|---|---|
| 845296 | Bushnell Road to Homley Road | Strengthen and widen pavement | 11,500,000 | 2023 to 2026-27 | 8km south |
| 1388289 | Alexander Lane to Bunya Highway | Improve safety | 23,910,000 | 2023 to 2026-27 | 10km south |

Source: QTRIP 2024-25 to 2027-28 (Queensland Government, 2024).

## 4.2 Local Government Road Network Planning

The SBRC Part 4 *Local Government Infrastructure Plan* (LGIP) and SBRC Extrinsic Material to LGIP (2019) has been reviewed to identify the location or nature of any planned trunk works in the vicinity of the subject site. The review determined that there are no trunk road infrastructure upgrades planned or committed that are of relevance to the assessment documented herein.

# 5.0 Assessed Traffic Demand

## 5.1 Background Traffic

The background traffic volumes are based on information obtained from the Queensland Government Open Data Portal for Site *32154*: *Kingaroy - Barker's Creek Road – At Tree on Left Tdist 14.34km*. The counting station is located approximately 14.5km to the east of the subject site.

Evaluating the DTMR Traffic Analysis and Reporting System (TARS) 2020 Annual Volume Report, the weekdays with the highest peak hour volumes, were identified as follows (see **Figure 3** below):

- AM Peak: Thursdays with approximately 8.5% of the AADT.
- PM Peak: Friday with approximately 9.5% of the AADT.

The peak hour traffic volumes were determined by applying the percentages to the directional AADT, see **Table 4** and are presented in **Figure D-1** in **Appendix D**.

**Figure 3 DTMR's Counting Station Hourly Averages for Site 32154**

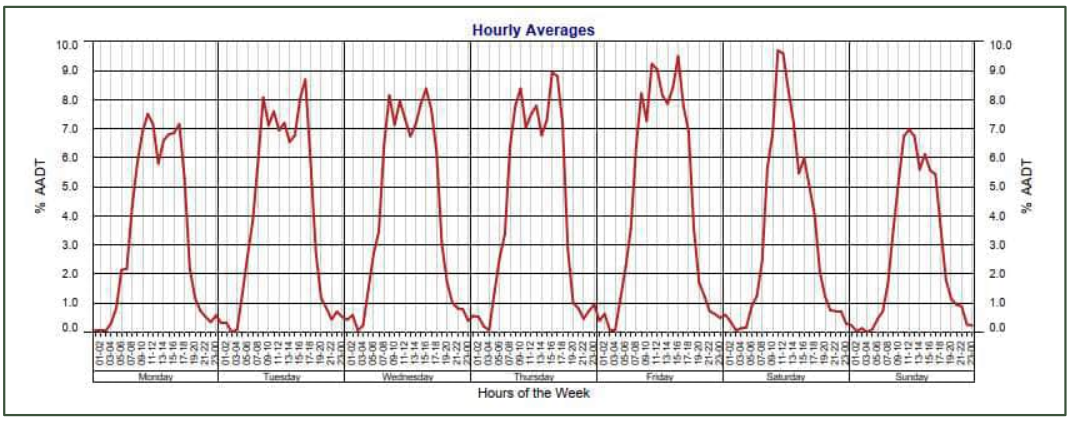



**Table 4 DTMR's Counting Station Volume Summary for 2022, Site 32154**

| Time of Day | % of AADT [2] | Both Directions | Eastbound | Westbound |
|---|---|---|---|---|
| AADT [1] | NA | 748 | 428 | 320 |
| AM Peak | 7.5% | 64 | 36 | 27 |
| PM Peak | 12.0% | 71 | 41 | 30 |

1. Source: Queensland Government Open Data Portal (2012-2022 traffic census data)
2. Source: TARS 2020 Annual Volume Report

## 5.2 Background Traffic Growth

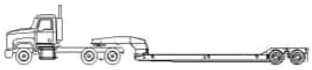
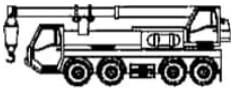
The linear growth rate to be applied to the background traffic movements is based on information contained in DTMR's AADT Segment Report for Site *32154*: *Kingaroy - Barker's Creek Road – At Tree on Left Tdist 14.34km*, as extracted from the TARS and Queensland Government Open Data Portal (2012-2022 traffic census data).

The latest available 10-year growth rate (2022) was found to be 2.44% and was adopted as the linear growth rate used to determine the background traffic for the year of construction (2026). The resulting background traffic can be seen in **Figure D-2** (**Appendix D**).

## 5.3 Vehicle Fleet

The anticipated vehicle fleet associated with the project is likely to consist of the following as outlined in **Table 5**.

**Table 5 Project Vehicle Fleet**

| Vehicle Type [1] | Typical Vehicle Profile | Workforce Travel/ Haulage Material and Equipment |
|---|---|---|
| Short |  | Workforce travel |
| 8.4m³ Concrete Mixer Truck (5-axle) [2] |  | Concrete |
| Truck (3-axle) and Dog Trailer (4-axle) |  | Quarry products<br>Aggregate<br>Miscellaneous materials and equipment |
| B-Double (26m long) |  | Battery units |
| Articulated Vehicle (20m, 6-axle) |  | Fuel delivery, Road base, Contractor supplies<br>Steel, Water pipes, Powerlines<br>Miscellaneous materials and equipment |
| Low Loader / Float (20m) |  | Inverter delivery |
| Crane |  | Construction mobilisation<br>Installation of inverter and battery units |
| Heavy Rigid Vehicle (3-axle) |  | Waste removal |
| Medium Rigid Vehicle (2-axle) |  | Water |

1 Source: SLR, 2024
2 Source: Vic Mix, Concrite and Boral concrete truck specifications

## 5.4 Construction Phase Traffic Demands

### 5.4.1 Construction Phase – Heavy Vehicles

The anticipated total heavy vehicle traffic demands associated with transporting the necessary construction material and equipment to the project site are set out in **Table 6**.

**Table 6 Trip Generation – Construction Material and Equipment**

| Construction Material/ Equipment | Vehicle Type | Origin/ Destination | No. Trucks Loads | Trips (In and Outbound) |
|---|---|---|---|---|
| Concrete [*Site access road, Footings and foundations for the battery units and inverter stations, Substation bench*] | Concrete Mixer Truck | Local Area | 60 | 120 |
| Water *[Concrete]* | Medium Rigid Vehicle (2-axle) | | 10 | 20 |
| Aggregates [*Internal Roads, Hardstand/ Laydown Areas, Substation Blue Stones*] | Truck (3-axle) and Dog (3-axle) | | 100 | 200 |
| Waste | Heavy Rigid Vehicle (12.5m long) | | 18 | 36 |
| Water [*Dust suppression*] | Medium Rigid Vehicle (2-axle) | | 104 | 208 |
| Larger Plant and Battery Components | B-Double (26m long) | via Port of Brisbane | 10 | 20 |
| Inverters | Articulated Vehicle (20m long) | | 5 | 10 |
| Ancillary Equipment [*Site mobilisation and establishment, Plant mobilisation, BoS Material Delivery, Construction demobilisation*] | Low Loader | | 10 | 20 |
| | Crane | | 15 | 30 |
| | | **Total** | **332** | **664** |

The construction movements will occur six days of the week, from Monday to Saturday. The construction hours are expected to be 6am-5pm during summer, whereas during winter, construction will only commence once the sun is up. Construction activities are expected to take place over a 2-5 month program. For the purpose of the assessment, a 2 month period has been assumed to ensure a conservative assessment.

It is further conservatively assumed that 80% of the truck movements will occur during the peak periods, resulting in a maximum of 5 heavy vehicle trips during the peak hours (5vph in and 5vph out in each peak hour).

Assuming a 50%/ 50% directional split occurs during the peak hours, the resulting number of heavy trip movements is given in **Table 7** below.

**Table 7 Trip Generation – Construction Heavy Vehicle Movements (Peak Hour)**

| Parameter | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total |
| In / Out Split | 50% | 50% | **100%** | 50% | 50% | **100%** |
| Trip Movement | 5 | 5 | **10** | 5 | 5 | **10** |

### 5.4.2 Construction Phase – Light Vehicles

The anticipated light vehicle traffic demand associated with transporting the workforce to the project site during the construction phase, based on information supplied by M Renewables, is expected to have a peak number of vehicles that will not be more than 30 vehicles per day i.e. 30 in and 30 out. The construction workforce would include (but not be limited to) the following:

- Tradespeople and construction personnel
- Sub-contractor construction personnel
- Engineers
- Functional and administrative staff

Further information received from M Renewables on the construction activities for the work force indicated that the expected peak hour trips during the peak period of construction is to be a maximum of 25 light vehicle trips during the morning and evening peak hours. The resulting number of light vehicle trip movements is given in **Table 8** below.

**Table 8 Trip Generation – Construction Light Vehicle Movements (Peak Hour)**

| Parameter | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total |
| In / Out Split | 100% | 0% | **100%** | 0% | 100% | **100%** |
| Trip Movement | 25 | 0 | **25** | 0 | 25 | **25** |

### 5.4.3 Trip Distribution

Generally, it is assumed that larger plant, equipment and battery components movements will come from the Port of Brisbane (see **Section 2.5**). Key materials such as aggregates, fill and cement will be sourced from the wider local area. To be consistent with previous assessments (see **Appendix B**), it has been assumed that the heavy vehicles will be distributed in a 50%/50% split between west and east, see **Table 9**.

It is further envisaged that the majority of the construction workforce will reside in Kingaroy, with a smaller portion coming from the wider local area. To be consistent with previous assessments (see **Appendix B**), it has been assumed that the workforce will be distributed in a 90%/10% split between west and east as shown in **Table 9**.

**Table 9 Trip Distribution (Direction of Travel)**

| Direction of travel | Distribution (%) | |
|---|---|---|
| | Heavy Vehicle | Light Vehicle |
| West to/from Kingaroy | 50% | 90% |
| East to/from Burnett Highway | 50% | 10% |
| **Total** | **100%** | **100%** |

### 5.4.4 Trip Assignment

The development trips have been assigned to the surrounding road network based on the trip generation as outlined in **Section 5.4.1** and **Section 5.4.2** and trip distribution in **Section 5.4.3**. The resulting trip assignment for the proposed development is shown in the traffic flow diagrams in **Figure D-3** to **Figure D-5** in **Appendix D**.

## 5.5 Operational Phase Traffic Demands

The operational works required at the BESS facility will be covered by the workforces currently attending the Solar Farm. Therefore, it is assumed that there will be no net increase in vehicle movements during the operational phase beyond those movements associated with the Kingaroy Solar Farm current operational needs.

## 5.6 Decommissioning Phase Traffic Demands

The operational phase of the project is predicted to be 30 years and therefore the decommissioning activities will ultimately occur well beyond the typical 10-year design horizon specified in the GTIA, and therefore detailed traffic volume forecasts have not been prepared for this phase of the project.

Nevertheless, it is noted that the traffic demands associated with decommissioning activities are anticipated to be less than those associated with construction activity and therefore any recommendations to mitigate construction traffic demands is also expected to be sufficient for any decommissioning works.

## 5.7 Cumulative Impacts

A review of publicly available material has been undertaken to determine the location and nature of any approved developments within the study area. Council's planning portal[1] was queried for approved applications in Kingaroy Bakers Road for the period 2018-2024. No major developments are planned in the vicinity of the project.

## 5.8 Net Worsening Impacts

Due to the low volume of existing and projected development related flows, and the short-term nature of the development generated traffic, no worsening to the efficiency of the state road network is anticipated as result of the development.

[1] https://www.southburnett.qld.gov.au/planning-building-plumbing/planning-development/development-applications



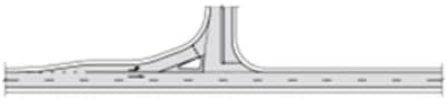


# 6.0 Design Considerations

## 6.1 Turn Warrant Assessment

A turn warrant assessment (TWA) has been undertaken to confirm the appropriate turn treatment type based on the forecast traffic demand for the year of construction (2026) at the development construction vehicle access. The assessment has been undertaken in accordance with the industry research summarised within the *Department for Transport and Main Roads' Supplement to Austroads Guide to Road Design Part 4a: Unsignalised and Signalised Intersections (2021).* To assist with reader interpretation of the assessment a pictorial description of the various turn treatments that may be considered is provided in **Table 10**.

**Table 10 Turn Treatment Type**

| Acronym | Right Turn Treatment | Left Turn Treatment |
|---|---|---|
| **BAL** or **BAR** |  **BAR** (Basic Right Turn) |  **BAL** (Basic Left Turn) |
| **AUL(S)** or **CHR(S)** |  **CHR(S)** (Channelised Right Turn (Short)) |  **AUL(S)** (Auxiliary Left Turn (Short)) |
| **(AUL** or **CHL)** or **CHR** |  **CHR** (Channelised Right Turn) |  **CHL** (Channelised Left Turn) |
| | |  **AUL** (Auxiliary Left Turn) |

The construction will occur over a 2-5 month period. The design life for turn warrant assessments are specified in years and therefore one year was adopted for the assessment. Given that the development construction access (eastern access in Kingaroy Bakers Road) is existing, it has been evaluated within the Extended Design Domain (EDD). Detailed output from the turn warrant assessments is included in **Appendix E**. The assessment indicates that BAR and BAL treatments are required at the development construction access.

The findings of the turn warrant assessment are in line with the results from the TIA for the Solar Farm (see **Appendix B**), which also indicated that a BAR and BAL were required. It was further stated that: "*In the case of a construction / domestic access as is proposed and subject to road safety assessment of the design, the widened shoulders may not require sealing".* Given that the shoulders were not sealed as part of the construction of the Solar Farm and the speed limit has since been reduced (from 100km/h to 80km/h), it is recommended that the layout remains unchanged.

## 6.2 Sight Distance Assessment

The eastern access of the development (see **Section 2.4**) will be utilised for construction traffic. This access was utilised by construction traffic for the construction of the Solar Farm.

As part of the development application for the Solar Farm development, a sight distance assessment was conducted (see **Appendix C**) and found that the sufficient sight distances are available. It was noted that the clearing of trees was required on the western side of Kingaroy Bakers Road. Based on Nearmap high resolution imagery of the area on 31 March 2023, the western side of Kingaroy Bakers Road is still clear of trees around the access. Furthermore, the speed limit reduced since from 100km/h to 80km/h, which improves safety and reduces the required stopping sight distance. As a result, no further investigation has been carried out.

## 6.3 Swept Path Assessment

To confirm the construction access is sufficient to accommodate the construction traffic and that manoeuvring can occur on site, a swept path assessment has been conducted of which the results can be seen in **Appendix F**. The following evaluation was conducted with the associated results:

- Design vehicle (B-double, 26m): The site access and manoeuvring on site was evaluated to ensure access to the construction area can occur without damage to any existing infrastructure. The results can be seen in Figures 01 to 03 in **Appendix F**. The assessment indicates that the vehicle can access and manoeuvre on site. However, these large vehicles will occupy the entire width of the road when accessing the site. Given the low background traffic of approximately 80vph in both directions, the infrequent occurrence of B-double trips (40 movements over the duration of construction) and the short duration of construction, this is deemed acceptable.
- Fire Truck (Heavy Rigid Vehicle, 12.5m): The manoeuvring of the fire truck on site between the battery units has been assessed to ensure access in the case of an emergency. The results can be seen in Figure 04 in **Appendix F** and indicate that a fire truck can manoeuvre safely on site.





# 7.0 Road Safety Assessment

## 7.1 Crash Data

Historic traffic crashes recorded in proximity to the site was sourced from DTMR's data publicly available online. Crash data for the latest available 5-year period was investigated, 1 July 2018 – 30 June 2023. **Figure 4** shows the location and severity of all recorded crashes that occurred within the wider cordoned area and **Table 11** provides more information on the crash type and year of occurrence.

Interrogation of the data within the impact assessment area, including consideration of the potential for construction traffic to exacerbate any observed crash trends, is discussed in the subsequent section below.

**Figure 4 Crash Location Plan**




**Table 11 Crash Data**

| SLR ID | Ref No | Severity | Year | DCA Code | Description |
|---|---|---|---|---|---|
| 1 | 324595 | Medical treatment | 2023 | 302 | Vehicles Same Direction: Left Rear |
| 2 | 324560 | Hospitalisation | 2022 | 701 | Off Path-Straight: Left off carriageway |
| 3 | 324542 | Hospitalisation | 2021 | 609 | Pass & Misc: Hit Animal |
| 4 | 324498 | Hospitalisation | 2020 | 705 | Off Path-Straight: Out of Control on carriageway |
| 5 | 324514 | Fatal | 2020 | 104 | Vehicles Adjacent Approach: Thru-Right |
| 6 | 324486 | Hospitalisation | 2019 | 804 | Off Path-Curve: Off carriageway Left Bend Hit Object |

## 7.2 Review of Spatial Information and Crash Data

The DTMR data indicates that a total of 6 crashes were recorded on the road network in the vicinity of the site. **Figure 4** indicates the location of the crashes and commentary on the crash type and severity is outlined in further detail below:

- One fatality occurred. The crash that caused the fatality occurred at the intersection of Kingaroy Bakers Road / Redmans Road on a Friday afternoon around 4pm in December 2020. A collation occurred due to a vehicle exiting Redmans Road to turn right into Kingaroy while a vehicle was approaching on Kingaroy Road from the east.
- On a Sunday morning in January 2023 around 9am, a crash occurred at the intersection of Kingaroy Bakers Road / Tessmanns Road. The crash occurred when a vehicle hit the rear end of another vehicle that was exiting Tessmanns Road to turn left on Kingaroy Road. The injury caused by the collision resulted in medical treatment to be administered.
- The rest of the crashes involved only one vehicle. Three crashes were caused by vehicles that lost control of the vehicle and left the carriageway. One was caused by a collision with an animal on the carriageway.
- Half of the crashes (3 incidents) occurred during the day, while the other half (3 incidents) occurred after dark.

Based on the desktop evaluation of the crash record, there appears to be no singular or recurring road safety issue that would preclude the development or construction of the proposed BESS facility.

## 7.3 Risk Assessment

A risk assessment was carried out in order to evaluate existing safety risks within the study area and also any safety risks introduced or exacerbated by the subject development.

The risk score for any safety issue is assessed using the *Safety Risk Score Matrix* presented in Figure 9.3.2(a) of the GTIA, which is reproduced in **Table 12**, where:

- L = Low Risk
- M = Medium Risk
- H = High Risk

**Table 12 Safety Risk Score Matrix**

| | | Potential Consequence | | | | |
|---|---|---|---|---|---|---|
| | | Property Only (1) | Minor Injury (2) | Medical Treatment (3) | Hospitalisation (4) | Fatality (5) |
| Potential Likelihood | Almost Certain (5) | M | M | H | H | H |
| | Likely (4) | M | M | M | H | H |
| | Moderate (3) | L | M | M | M | H |
| | Unlikely (2) | L | L | M | M | M |
| | Rare (1) | L | L | L | M | M |

The GTIA provides the following criteria for mitigation of safety risks:

- The object of the assessment is return the 'With Development' risk score to the 'Without Development' risk score and below the 'high' risk score with mitigation measures; and
- Any risk item in the 'high' category requires mitigation, regardless of whether this risk is a pre-existing condition.

**Table 13 Risk Assessment**

| Risk Item | Without Development | | | With Development | | | Mitigation Measures | With Development and Mitigation | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Likelihood | Consequence | Risk Score | Likelihood | Consequence | Risk Score | | Likelihood | Consequence | Risk Score |
| The additional development traffic increases the likelihood (exposure) of crashes at the development construction access. | 2 | 4 | M | 4 | 3 | M | A turn warrant assessment has been conducted that confirmed the existing turn treatment is sufficient to accommodate the development construction traffic demand. No mitigation required. | 4 | 3 | M |
| The additional demand for turning movements at the development access which may result in increased rear-end and angle crashes. | 2 | 4 | M | 4 | 3 | M | | 4 | 3 | M |
| The construction design vehicle (b-double) accessing the site could result in the increased likelihood of crashes at the development construction access as the vehicle require the entire width of the road to access the site. | - | - | - | 2 | 4 | M | Given the low background traffic, the infrequent occurrence of b-double movement and the short construction period, this is deemed acceptable. No mitigation required. | 2 | 4 | M |

The risk assessment findings indicate the incremental risks can be addressed.

# 8.0 Code Assessment – State Development Assessment Provisions (SDAP) Code Assessment

The traffic and transport aspects of the proposed development have been assessed against the requirements of State Code 1 and 6 of the State Development Assessment Provisions (SDAP) version 3.1. Responses have been prepared and are included in **Appendix F**.

# 9.0 Conclusion

SLR Consulting Australia Pty Ltd (SLR) has been engaged by M Renewables Australia Developments Pty Ltd (M Renewables) to prepare a Traffic Impact Assessment (TIA) for a Kingaroy Solar Farm Battery Energy Storage System (BESS) at Kingaroy, Queensland.

This report has considered the traffic impacts of the proposed project during the following phases:

- Construction Phase – the proposed development will generate additional traffic of approximately 70 trip movements during AM and PM Peak periods during the construction phase (2-5 months).
- Operational Phase – once operational, the project is anticipated to have no impact on the road network as all operational works required at the BESS facility will be covered by the workforces currently attending to the Solar Farm.
- Decommissioning Phase – The operational phase of the project is predicted to be 30 years and therefore the decommissioning activities will ultimately occur well beyond the typical 10-year design horizon specified in the GTIA, and therefore detailed traffic volume forecasts have not been prepared.

Based on the analysis and assessment conducted as part of this TIA, the following key conclusions are made in relation to the proposed developments traffic related impacts:

- The route for key materials movements is anticipated to be via the Bruce Highway, the D'Aguilar Highway, though Kingaroy to access the site via Kingaroy Bakers Creek Road. This is an approved heavy vehicle route (up to and including a 26m B-double), however it terminates approximately 3.5km to the west of the construction access. The proponent will be required to obtain a notice or permit from the National Heavy Vehicle Regulator which specifies the route of operation for any proposed 26m B-doubles that are required to access the subject site.
- No Oversize Overmass vehicles will be utilised during construction.
- The existing turn treatments (BAL/BAR) are sufficient to accommodate the development construction traffic demand at the construction access.
- A swept path assessment indicated that the design vehicle (B-double) can access and manoeuvre on site. However, these large vehicles will occupy the entire width of the road when accessing the site. Given the low background traffic, the infrequent occurrence of B-double trips and the short duration of construction, this is deemed acceptable.
- The publicly available crash dataset indicates no recurring crash types and themes and therefore it is concluded that the proposed construction works do not pose significant road safety risks to the wider network.
- Due to the low volume of existing and projected development related flows, and the short-term nature of the development generated traffic, no worsening to the efficiency of the state road network is anticipated as result of the development.





# Appendix A Development Plans

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

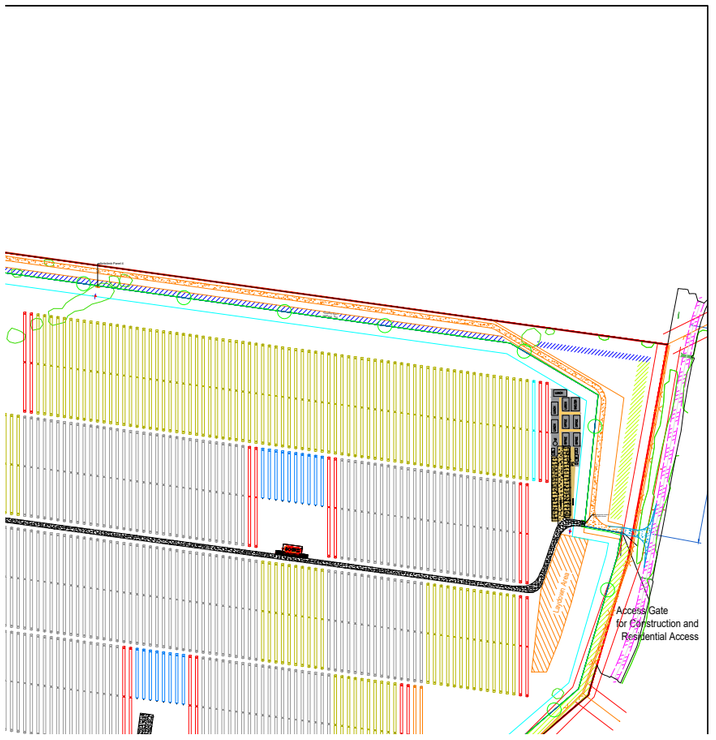
**Traffic Impact Assessment**

**M Renewables Australia Developments Pty Ltd**

SLR Project No.: 620.041577.00001

18 February 2025

SLR



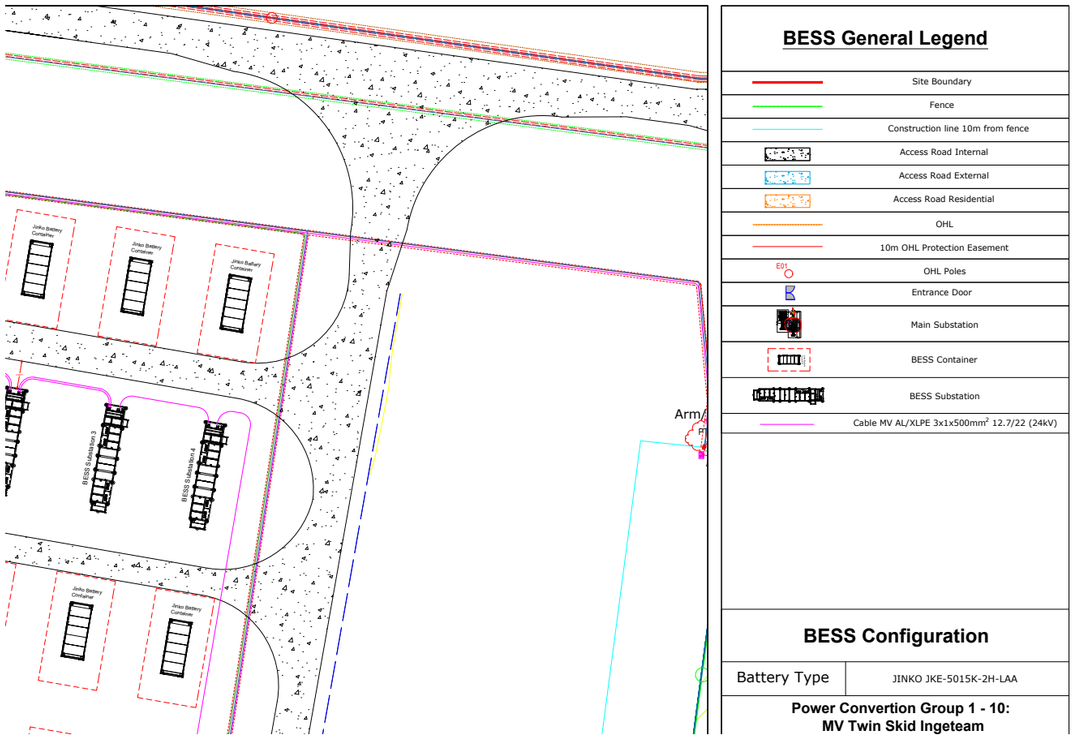

## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | |
|---|---|
| Battery Type | JINKO JKE-5015K-2H-LAA |

**Power Convertion Group 1 - 10:**
**MV Twin Skid Ingeteam**


BESS General Legend
Site Boundary
Fence
Construction line 10m from fence
Access Road Internal
Access Road External
Access Road Residential
OHL
10m OHL Protection Easement
OHL Poles
Entrance Door
Main Substation
BESS Container
BESS Substation
Cable MV AL/XLPE 3x1x500mm² 12.7/22 (24kV)
BESS Configuration
Battery Type
JINKO JKE-5015K-2H-LAA
Power Convertion Group 1 - 10:
MV Twin Skid Ingeteam
Jinko Battery Container
BESS Substation 3
BESS Substation 4

# Appendix B Solar Farm TIA (Premise TIA, 2017)

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

**Traffic Impact Assessment**

**M Renewables Australia Developments Pty Ltd**

SLR Project No.: 620.041577.00001

18 February 2025

(07) 4772 0666
main@premise.com.au
**premise.com.au**

Our Ref: RPS0029-L01-JTP

Contact: Bradley Jones

24 October 2017

The Manager
Terrain Solar
PO Box 1113
**MANLY NSW 2095**

Attention: Mr Chris Wilson

Dear Sir

**KINGAROY SOLAR FARM**
**TRAFFIC ENGINEERING ADVICE**

UDP Mackay Pty Ltd trading as Premise provides the following advice regarding Kingaroy Solar Farm access following your request received 1 September 2017.

It is understood that Terrain Solar is seeking approval for a second access to the Kingaroy Solar Farm spanning Lots 4 and 5 on SP219361, and Lot228 on FTZ37463. The second access is proposed on Kingaroy Barkers Creek Road at the northeast corner of Lot 228 on FTZ37463 and will be used by solar farm construction traffic. Post construction, the proposed access will serve an existing residence on the northern portion of Lot 5 on SP219361 while traffic associated with solar farm operations uses the existing site access on Kingaroy Barkers Creek Road 100m west of Redmans Road.

**Existing Conditions**

Kingaroy Solar Farm is located approximately 3.5km east of Kingaroy township as shown by Figure 1. The site has frontage to Kingaroy Barkers Creek to the south and east and is otherwise bounded by agricultural land. The subject site and surrounding land currently has a rural zoning in the South Burnett Regional Council Planning Scheme and is used for grazing and tree plantations.

There is a single existing access serving Lot 5/SP219361. From Google Earth, Queenland Globe and Google Earth Street View, there does not appear to be any access to Lot 4/SP219361 or Lot 228/FTZ37463 neither direct nor via an easement.

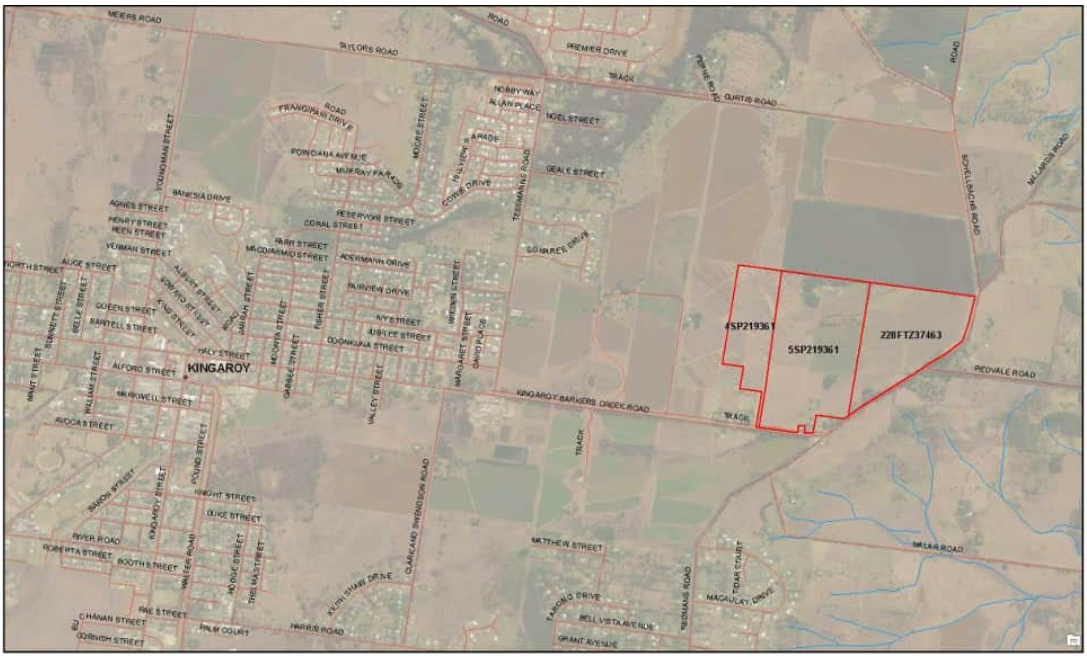



*Figure 1: Locality plan*

Kingaroy Barkers Creek Road is a local road of regional significance under the governing authority of the Department of Transport and Main Roads (TMR). It is generally aligned east-west between Kingaroy township and the Burnett Highway. Kingaroy Barkers Creek Road is a seal carriageway providing a single traffic lane in each direction with centre line marked and unsealed shoulders as shown by Figure 2. The posted speed limit on Kingaroy Barkers Creek Road fronting the subject site is 100km/h.



*Figure 2: Kingaroy Barkers Creek Road looking west from the existing site access*

As shown by Figure 3 there are two (2) intersections on the surrounding road network in close proximity to the existing and proposed second access locations.

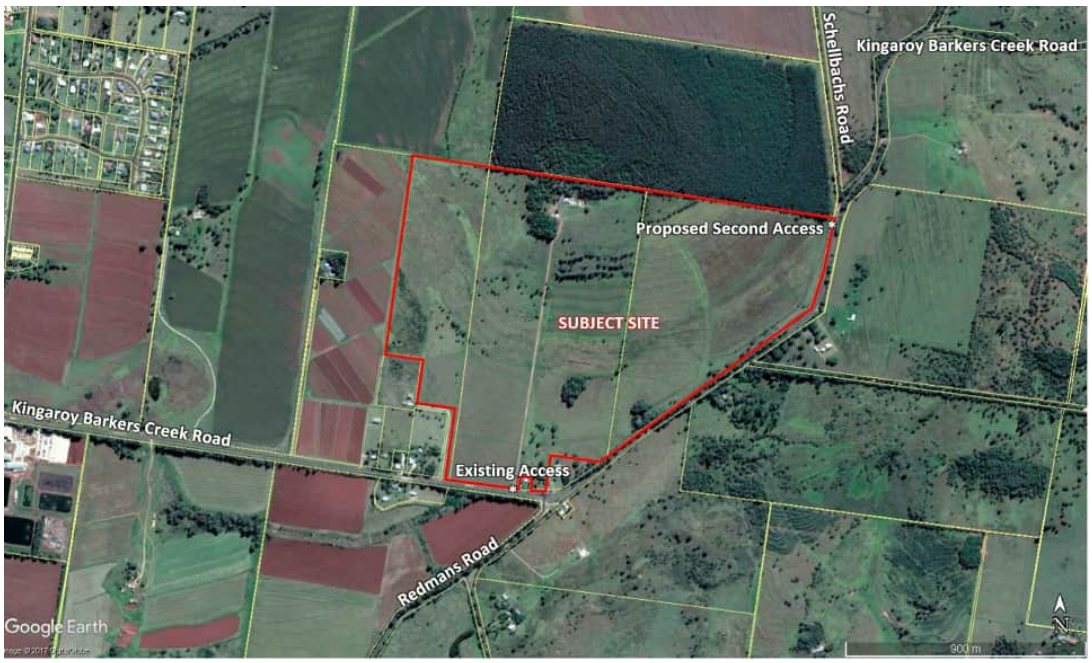



*Figure 3: Surrounding road network*

Redmans Road forms a T-intersection on the southern side of Kingaroy Barkers Creek Road approximately 100m east of the existing site access as shown by Figure 4. The intersection is constructed with basic left and right turn treatments (BAL / BAR) and is situated on the outside of a curve with an 80km/h advisory speed. Terrain Solar advise that, based on their observation of traffic on Kingaroy Barkers Creek Road, they believe traffic speeds are in excess of the advisory speed and possibly even the posted speed limit.




*Figure 4: Kingaroy Barkers Creek Road / Redmans Road T-intersection*

Shellbachs Road forms a T-intersection on the northern side of Kingaroy Barkers Creek Road approximately 70m north of the northeast corner of Lot 228/FTZ37463 as shown by Figure 5. The intersection is constructed with simple left and right turn treatment (SL / SR) but traffic approaching along Kingaroy Barkers Creek Road from the south and turning left into Schellbachs Road tends to cut the intersection corner with a dirt track providing an informal slip lane. The intersection is situated on the outside of a curve which is the first in a series of reverse curves approached by eastbound traffic on Kingaroy Barkers Creek Road. The advisory speed for traffic entering the series of reverse curves is 80km/h.




*Figure 5: Kingaroy Barkers Creek Road / Schellbachs Road T-intersection*

TMR supplied Traffic Analysis and Reporting System (TARS) data for Kingaroy Barkers Creek Road between Tessmans Road and Burnett Highway for the 2016 traffic year. Significant points are:

- Annual average daily traffic (AADT) = 580vpd;
- Proportion of heavy vehicles (HV%) = 5.17%; and
- The busiest hour of the week is Friday morning from 7:45AM to 8:45AM with an average volume (over 20 weeks of data collection) being 84vph.

Figure 6 shows the locations of crash reports in the Transportation Globe feature of Queensland Globe for the period 1 January 2001 to 31 December 2016. Three (3) crashes are reported on the subject site frontage. All three (3) crashes were single vehicle off-path hit object crashes resulting in property damage only and occurred during conditions of darkness on either a Saturday or Sunday between Redmans Road and Schellbachs Road.




*Figure 6: Crash locations reported in the Transportation Globe feature of Queensland Globe*

**Proposed Development Details**

Terrain Solar drawing no S-01 enclosed as attachment 1 shows the proposed development site plan. It is proposed to provide a laydown area and site construction compound at the northern end of Lot 228/FTZ37463 with a new operations building and substation at the southern end of Lot 5/SP219361. The existing residence located at the northern end of Lot 5/SP219361 is proposed to remain throughout construction and operation.

Construction is proposed to commence as soon as possible following receipt of the necessary approvals and take up to 12 months to complete.

The existing site access is proposed to be retained as the operational access to the solar farm. It is located on Kingaroy Barkers Creek Road approximately 100m west of the Redmans Road intersection (as shown by Figure 4 and 400m east of a crest on Kingaroy Barkers Creek Road as shown by Figure 2.

A new access is proposed on Kingaroy Barkers Creek Road within 60m of the sites northern boundary. The access will be used by construction traffic and, post construction, as access to the existing residence. The proposed new access will be located on a straight which extends south from the Schellbachs Road intersection for a length of approximately 400m. The access will be 70m to 130m south of the Schellbachs Road intersection.

**Development Traffic**

Operational traffic is expected to be similar to traffic generated by the existing residence which currently uses the proposed operational access.

It is expected that, on a typical day, 20 to 40 construction workers will be on site. However, up to 100 construction works may be on site during periods of overlapping construction activities.

Construction works are assumed to travel to and from site in light vehicles (LV) with an average vehicle occupancy of 1.25 construction worker per LV. Therefore, it is estimated that the development will typically generate less than 64 LV per day but could generate up to 80LV per hour when workers arrive in the morning and depart in the afternoon during periods of peak activity.

Table 1 shows constructions activities and associated vehicle loads. As Kingaroy Barkers Creek Road east of Tessmans Road is not approved for use by multi-combination vehicles, it is assumed that all 40ft containers will be transported by semi-trailers with one (1) container per semi-trailer.

*Table 1: Construction Activities and Associated Vehicle Loads*

| Activity | Load type | Number of loads | Activity duration (weeks) |
|---|---|---|---|
| **Stage 1A** | | | |
| Mobilisation of site including earthmoving equipment | Semi-trailer | 19 | 3 |
| **Stage 1B** | | | |
| Delivery of material for HV cabling | Semi-trailer | 12 | 8 |
| **Stage 1C** | | | |
| Delivery of concrete – supports for inverter | $5m^3$ agitator truck | 33 | 6 |
| **Stage 2** | | | |
| Delivery of structural materials – support for PV panels | 40ft container | 130 | 10 |
| Delivery of bolts, electrical LV cable and junction boxes, etc. | 40ft container | 45 | 4 |
| Delivery of PV cells | Semi-trailer | 275 | 12 |
| Delivery of inverter blocks | 40ft container | 12 | 10 |
| **Stage 3** | | | |
| Demobilisation of site | Semi-trailer | 20 | 2 |

The peak period for heavy vehicle (HV) activity is expected to be Stage 2 when a total of 462 semi-trailer loads of material will be delivered to site over a period of three (3) months. During this period, up to 48 semi-trailer loads per week of materials may be delivered to site. Based on a five (5) day construction week and allowing for one (1) water delivery per day, the peak daily HV traffic generation is 22HV per day.

During peak periods of HV activity it is estimated that four (4) HV movements per hour (two (2) inbound and two (2) outbound) will be generated.

Assuming peak HV activity coincides with commuter peak periods, design peak hour development generated traffic will consist of:

- 80LV trips – all inbound during the morning peak and all outbound during the afternoon peak; and
- Four (4) HV trips – two (2) inbound and two (2) outbound during both peaks.

It is assumed the construction traffic will be distributed:

- LV trips – 90% west to / from Kingaroy township and 10% east to / from Burnett Highway; and
- HV trips – 50% west to / from Kingaroy township and 50% east to / from Burnett Highway.

**Impact Assessment and Mitigation**

With and Without Development Traffic Volumes

It is assumed that traffic on Kingaroy Barkers Creek Road is distributed 70 : 30 with the peak direction being westbound to Kingaroy during the morning peak and eastbound from Kingaroy during the afternoon peak. Therefore, based on 84vph during the busiest hour of the week, it is assumed that without development traffic on Kingaroy Barkers Creek Road is 59vph in the peak direction and 25vph in the counter peak direction.

Based on the preceding discussion, Figure 7 shows estimated design peak hour traffic volumes for the development which occur during stage 2 of construction.

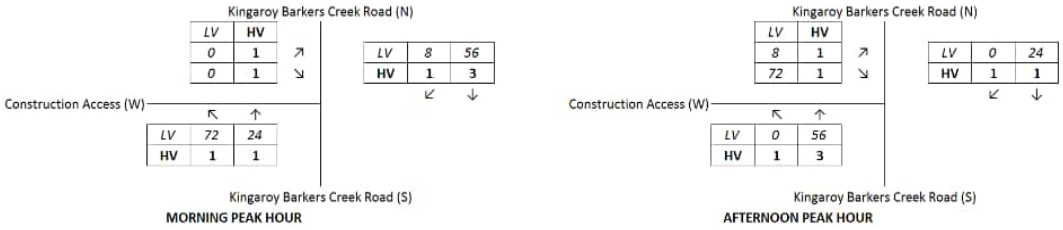



*Figure 7: Design peak hour traffic volumes*

Safety Assessment of Proposed Design

With a posted speed limit above 80km/h and AADT of less than 8,000vpd the road environment safety rating of Kingaroy Barkers Creek Road is medium.

Therefore, as Kingaroy Solar Farm is a Planning Act Development as defined by the "Guide to Traffic Impact Assessment" (Transport and Main Roads, September 2017), the proposed access design requires a road safety assessment by either a registered professional engineer Queensland (RPEQ) or an accredited road safety auditor.

Turn Warrant Assessments

The design peak hour for turn warrant assessment is the morning peak hour when construction staff generate maximum turning volumes into the construction access. The "Supplement to Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections" (Transport and Main Roads, August 2014) indicates that for a design speed of 100km/h or more, basic left and right turn treatments (BAL / BAR) are warranted to accommodate morning peak hour traffic.

The BAL / BAR treatment is the lowest standard of turn treatment allowable in the normal design domain (NDD). Traffic turns from the through traffic lanes of the major road with shoulder widening to provide separation between through and turning traffic in an emergency.

In the case of a construction / domestic access as is proposed and subject to road safety assessment of the design, the widened shoulders may not require sealing.

Design details are provided by the following references:

- Rural BAL – Figure 8.2 of the "Guide to Road Design Part 4A: Unsignalised and Signalised Intersections" (Austroads, 2017); and
- Rural BAR – Figure A 28 of the "Guide to Road Design Part 4: Intersections and Crossings – General" (Austroads, 2017).

Copies of both figures are enclosed as attachment 2 for ease of reference. The appropriate design speed, V, is 110km/h being 10km/h above the posted speed limit. Therefore, the length of parallel widening, P, for the BAL treatment is 35m. The appropriate design vehicle is a semi-trailer requiring a storage length, S, for the BAR treatment of 19.0m. Swept path analysis for the design vehicle will determine the value of parameters $R_1$, $R_2$, $S_b$ and X.

Intersection Analysis

Access operation was modelled using SIDRA Intersection Version 7 (SIDRA). The modelled layout and site output movement summaries for the morning and afternoon peaks are enclosed as Attachment 3 based on SIDRA's default parameter values. Key model outputs are:

- The maximum degree of saturation is 0.071 for the exit from the site during the afternoon peak hour. This is well below the practical capacity of a priority intersection which is accepted as 0.80;
- The maximum average delay to any movement is 7.0 seconds for the right turn out of the construction access during the morning peak hour. This is considered a very short delay resulting in level of service A; and
- The maximum queue length is 0.2 vehicles for the exit from the site during the afternoon peak hour.

From the SIDRA intersection analysis, it is concluded that with BAL / BAR turn treatments on Kingaroy Barkers Creek Road and a single lane approach from the subject site, the proposed construction access has sufficient capacity to accommodate design peak hour traffic with very short delays and queues.

Sight Distances

The "Guide to Traffic Impact Assessment" (TMR, September 2017) provides the following guidelines in relation to sight distance at accesses:

- Analysis and upgrading should preferably be based on the normal design domain (NDD);
- Approach sight distance (ASD) should be provided at every proposed intersection or driveway access;
- Public road intersections should have safe intersection sight distance (SISD) unless characteristics of the road or the site totally preclude it. In those circumstances, minimum gap sight distance (MGSD) should be provided; and
- The design speed should be 10km/h in excess of the posted speed limit unless speed survey data is available.

ASD is the distance at which a driver can see the road surface and associated pavement markings at an intersection or access and react to safely negotiate the intersection. It is calculated using the formula

$$ASD = \frac{R_T \times V}{3.6} + \frac{V^2}{254 \times (d + 0.01 \times a)}$$

where

$R_T$ = reaction time = 2.0sec general minimum (2.5sec desirable for V ⩾ 90km/h);
V = design speed = 110km/h for Kingaroy Barkers Creek Road;
d = coefficient of acceleration = 0.36 normal maximum; and
a = longitudinal grade = 0% for Kingaroy Barkers Creek Road.

SISD is the distance at which a driver on the major road can see another vehicle at the intersection or access moving into a collision position, recognise the collision situation developing and stop before colliding with the other vehicle. It is calculated using the formula

$$SISD = \frac{D_T \times V}{3.6} + \frac{V^2}{254 \times (d + 0.01 \times a)}$$

where the meaning of variables is as above with decision time, $D_T$, being the sum of reaction time, $R_T$, and 3sec observation time.

MGSD is the distance at which a driver on the minor road or access driveway can see another vehicle approaching on the major road in order to select a safe gap to complete the exit manoeuvre. It is calculated using the formula

$$MGSD = t_c \times \frac{V}{3.6}$$

where $t_c$ is the critical acceptance gap. According to Table 3.5 of the "Guide to Road Design Part 4A: Unsignalised and Signalised Intersections" (Austroads, 2017) the critical acceptance gap relevant to an intersection / access on a two-lane / two-way road is 5sec.

Table 2 shows minimum sight distance requirements in the NDD for a range of design speeds.

It is unlikely that SISD can be provided in along Kingaroy Barkers Creek Road in both directions at any point on the subject site frontage with the posted speed limit being 100km/h. The "Guide to Traffic Impact Assessment" (TMR, September 2017) however does not require SISD be provided at a site access.

For design speeds of 80km/h or greater, provision of ASD will ensure provision MGSD. Therefore, it is recommended that new site accesses be located to achieve the minimum ASD standards.

*Table 2: Normal Design Domain Sight Distance Requirements*

| V | ASD | SISD | MGSD |
|---|---|---|---|
| 110km/h | 193m | 285m | 153m |
| 100km/h | 165m | 248m | 139m |
| 90km/h | 139m | 214m | 125m |
| 80km/h | 114m | 181m | 111m |
| 70km/h | 92m | 151m | 97m |

Appendix E of the "Guide to Road Design Part 4: Intersections and Crossings – General" (Austroads 2017) recommends minimum sight distance requirement should be provide between intersections / accesses. On this basis, it is recommended that the proposed second access to the subject site on Kingaroy Barkers Creek Road be provided ASD south of Schellbachs Road.

The road crash data suggests that a speed limit review may be justified on Kingaroy Barkers Creek Road between Redmans Road and Schellbachs Road. It is recommended that a speed limit review be conducted prior to design of the proposed new access as this will influence the location, geometry and road safety assessment of the access.

It is currently proposed to provide the subject site's second access on Kingaroy Barkers Creek Road within 130m of Schellbachs Road. For this separation to meet the requirement for provision of ASD between the access and the intersection the design speed would need to be less than 90km/h implying a posted speed limit of 70km/h.

Based on the current posted speed limit of 100km/h, the proposed second access on Kingaroy Barkers Creek Road would need to be located 193m south of the Schellbachs Road intersection (approximately 120m south of the northeast corner of Lot 228/FTZ37463.

Post construction the proposed new access will serve as a domestic property access only. As users of the access will be familiar with its location, it may be acceptable to provide MGSD rather than ASD between Schellbachs Road intersection and the access. Based on the current posted speed limit of 100km/h, the proposed second access on Kingaroy Barkers Creek Road could be located 153m south of Schellbachs Road (approximately 80m south of the northeast corner of Lot 228/FTZ37463). To achieve ASD requirements during construction, the Kingaroy Barkers Creek Road speed limit would need to be temporarily reduced to 80km/h in the vicinity of this access.

State Code 1: Development in a State-Controlled Road Environment

Performance Outcomes PO15, PO16 and PO17 of State Development Assessment Provisions – version 2.1 State Code 1 Development in a State-Controlled Road Environment relate to vehicular access to a state-controlled road. Responses to these three (3) Performance Outcomes are enclosed as Attachment 4.

The proposed development complies with PO15 and PO17. Compliance with PO16 is subject to a decision under section 62 of the *Transport Infrastructure Act 1994* permitting access between Lot 228/FTZ37473 and Kingaroy Barkers Creek Road.

**Conclusions and Recommendations**

Based on the preceding discussions and analysis we conclude that the proposed new access between Lot 228/FTZ37473 and Kingaroy Barkers Creek Road complies with State Code 1: Development in a State-Controlled Road Environment performance outcomes related to vehicle access to a state-controlled road subject to:

- Location of the access such that approach sight distance (ASD) is provided between the access and Schellbachs Road;
- Construction of the access with basic left and right (BAL / BAR) turn treatments; and
- Road safety assessment of the proposed access design by either a registered professional engineer Queensland (RPEQ) or an accredited road safety auditor.

Noting that there have been a number of single vehicle off-path hit object crashes on Kingaroy Barker Creek Road between Redmans Road and Schellbachs Road, it is recommended that a speed limit review be conducted on this road segment. The review should be conducted prior to design of the proposed new access as changing the speed limit will influence the location, geometry and road safety assessment of the access.

This Traffic Engineering Advice was prepared by Bradley Jones under the direct supervision of Chris Porter (RPEQ 13964). RPEQ Certification in accordance with the Guide to Traffic Impact Assessment is enclosed as Attachment 5.

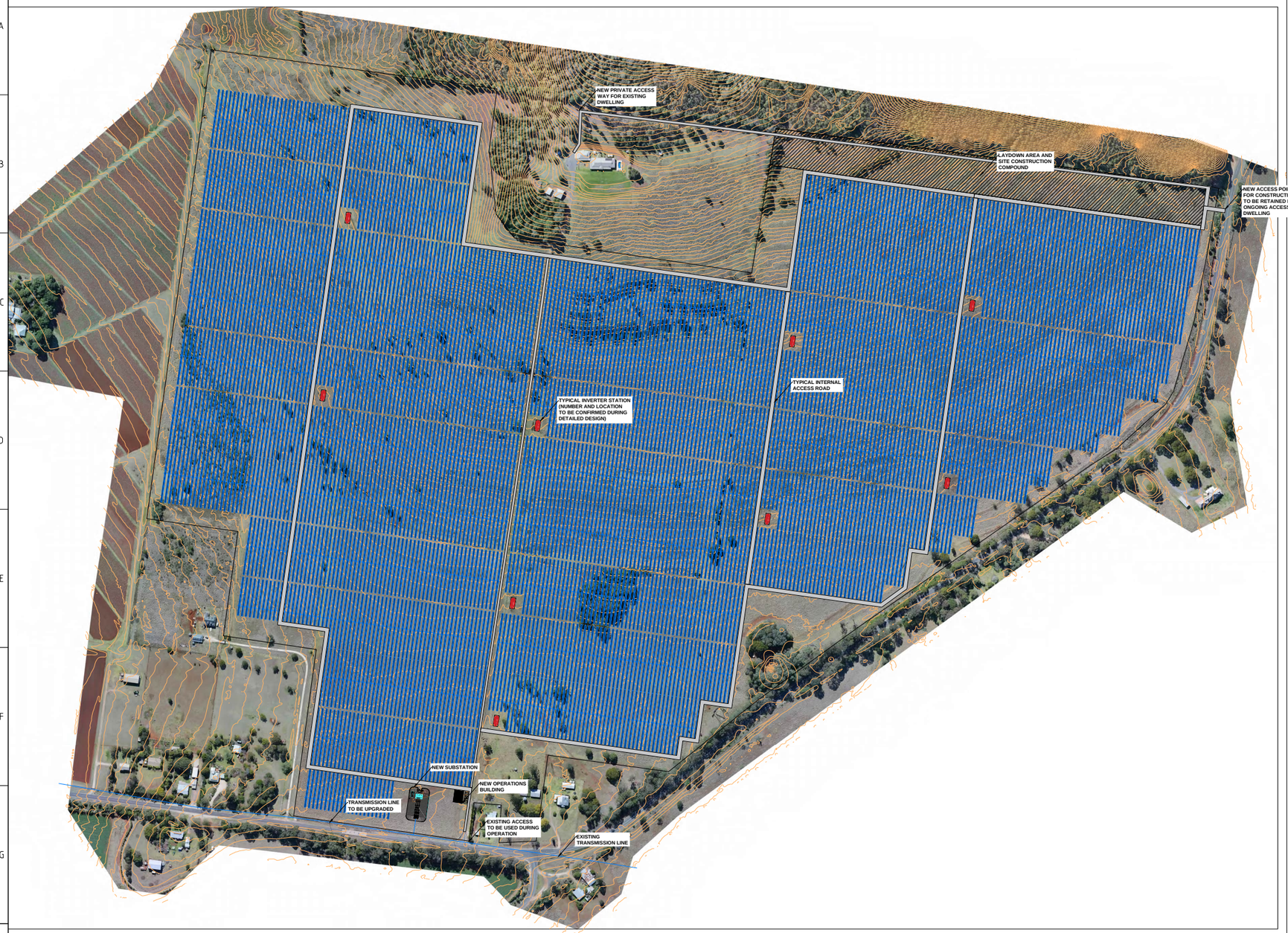
Yours faithfully

**Bradley Jones**
**Traffic Engineer**
**UDP Mackay Pty Ltd t/a Premise**

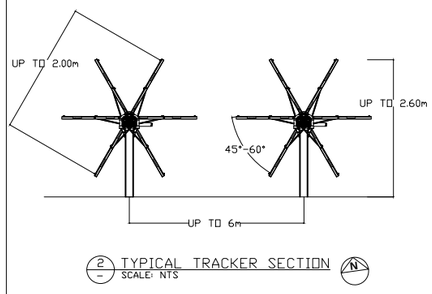
Enc: Attachment 1: Terrain Solar drawing no S-01
Attachment 2: BAL / BAR design details
Attachment 3: SIDRA intersection analysis
Attachment 4: Responses to PO15, PO16 and PO17 of State Code 1
Attachment 5: Traffic Impact Assessment Certification

Cc: Mr Wayne Window, RPS Brisbane (by email)

**ATTACHMENT 1**
**TERRAIN SOLAR DAWINGS NO S-01**




1 SITE PLAN
SCALE: 1:3000




2 TYPICAL TRACKER SECTION
SCALE: NTS

TERRAIN SOLAR

| LETTER | DETAILS OF AMENDMENT | APP'D | DATE |
|---|---|---|---|
| 2 | PRIVATE ACCESS TO DWELLING | C.W. | 23.08.2017 |
| 1 | PRELIMINARY DRAFT | C.W. | 19.08.2017 |

DESIGNED C. WILSON 23.08.2017
DRAWN C. WILSON 23.08.2017
VERIFIED
APPROVED

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THIS DRAWING SUPERSEDES
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ACCEPTED CLIENT TERRAIN SOLAR

KINGAROY SOLAR FARM
40MW CAPACITY
PRELIMINARY LAYOUT

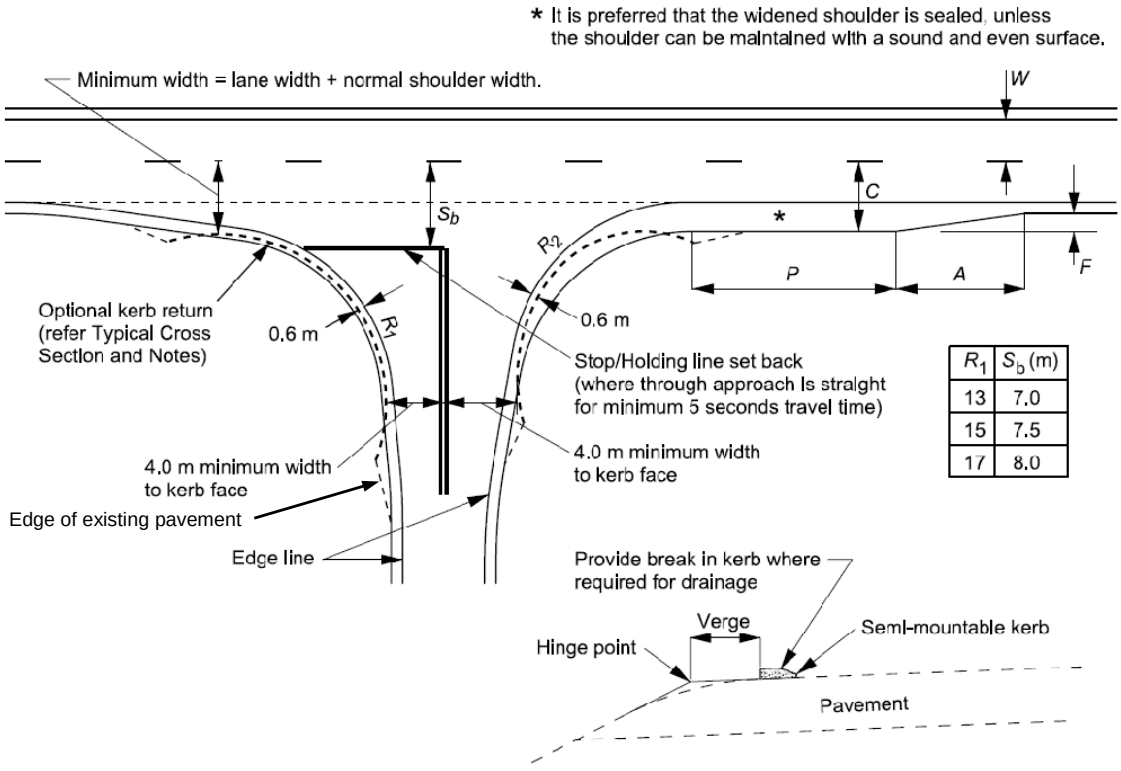
A1 | PROJ No. | DRAWING STATUS: PRELIMINARY

DRAWING No. S-01
REV 02 | SHEET No. 1 OF 1

TERRAIN SOLAR 2017

**ATTACHMENT 2**
**BAL / BAR DESIGN DETAILS**

**Figure 8.2: Rural basic left-turn treatment (BAL)**




| $R_1$ | $S_b$ (m) |
|---|---|
| 13 | 7.0 |
| 15 | 7.5 |
| 17 | 8.0 |

*Notes:*

- *$R_1$ and $R_2$ are determined by the swept path of the design vehicle.*
- *The dimensions of the treatment are defined thus:*

  *W* = *Nominal through lane width (m) (including widening for curves).*

  *C* = *On straights – 6.0 m minimum.*

  *On curves – 6.0 m plus curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle).*

  $A = \frac{0.5VF}{3.6}$

  *V* = *Design speed of major road approach (km/h).*

  *F* = *Formation/carriageway widening (m).*

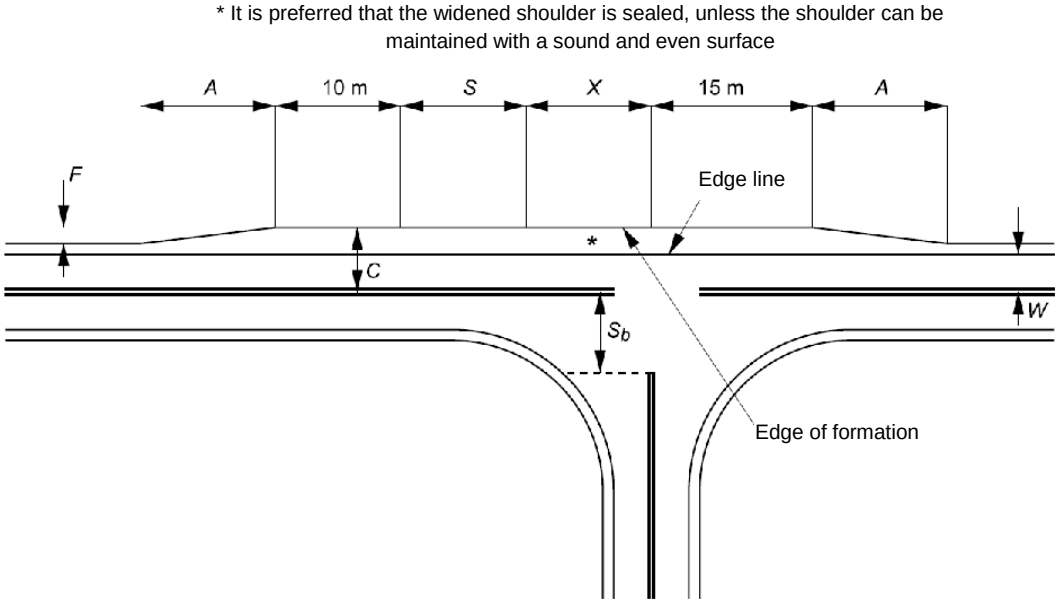
  *P* = *Minimum length of parallel widened shoulder (Table 8.1).*

  $S_b$ = *Setback distance between the centre of the major road and the give way or stop line in the minor road.*

*Source: Department of Main Roads (2006)[35].*

35 Department of Main Roads (2006) has been superseded and Figure 8.2 has not been carried forward into Queensland Department of Transport and Main Roads (2016).

**Figure A 28: Basic right (BAR) turn treatment on a two-lane rural road**




*Notes:*

*This treatment applies to the right turn from a major road to a minor road.*

*The dimensions of the treatment are:*

*W* = Nominal through lane width (m) (including widening for curves). Width to be continuous through the intersection.

*C* = On straights –6.5 m minimum
7.0 m minimum for Type 1 & Type 2 road trains
On curves – widths as above + curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle)

*A* = $\frac{0.5VF}{3.6}$
Increase length *A* on tighter curves (e.g. those with a side friction demand greater than the maximum desirable). Where the design through vehicle is larger than or equal to a 19 m semi-trailer the minimum speed used to calculate A is 80 km/h

*V* = Design speed of major road approach (km/h)

*F* = Formation/carriageway widening (m)

*S* = Storage length to cater for one design turning vehicle (m) (minimum length 12.5 m)

*X* = Distance based on design vehicle turning path, typically 10–15 m

*Source: Department of Main Roads (2006)[25].*

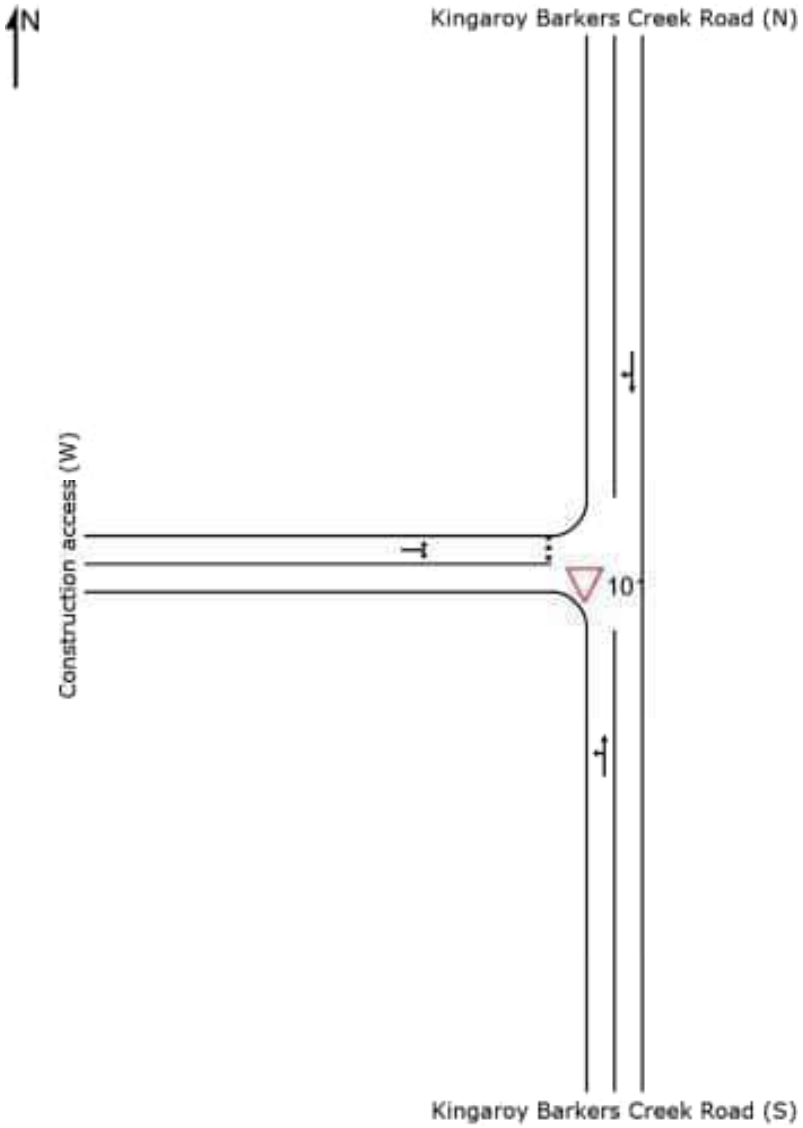
25 Department of Main Roads (2006) has been superseded and Figure A 28 has not been carried forward into Queensland Department of Transport and Main Roads (2016).

**ATTACHMENT 3**
**SIDRA INTERSECTION ANALYSIS**

## SITE LAYOUT

### Site: 101 [AM]

Design morning peak hour traffic
Giveway / Yield (Two-Way)




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# MOVEMENT SUMMARY

## Site: 101 [AM]

Design morning peak hour traffic
Giveway / Yield (Two-Way)

**Movement Performance - Vehicles**

| Mov ID | OD Mov | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate per veh | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Kingaroy Barkers Creek Road (S) | | | | | | | | | | | |
| 1 | L2 | 77 | 1.4 | 0.056 | 5.6 | LOS A | 0.0 | 0.0 | 0.00 | 0.44 | 54.7 |
| 2 | T1 | 26 | 4.0 | 0.056 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.44 | 56.2 |
| Approach | | 103 | 2.0 | 0.056 | 4.1 | NA | 0.0 | 0.0 | 0.00 | 0.44 | 55.0 |
| North: Kingaroy Barkers Creek Road (N) | | | | | | | | | | | |
| 8 | T1 | 62 | 5.1 | 0.039 | 0.1 | LOS A | 0.1 | 0.5 | 0.06 | 0.08 | 59.1 |
| 9 | R2 | 9 | 11.1 | 0.039 | 5.9 | LOS A | 0.1 | 0.5 | 0.06 | 0.08 | 56.3 |
| Approach | | 72 | 5.9 | 0.039 | 0.8 | NA | 0.1 | 0.5 | 0.06 | 0.08 | 58.7 |
| West: Construction access (W) | | | | | | | | | | | |
| 10 | L2 | 1 | 100.0 | 0.002 | 6.3 | LOS A | 0.0 | 0.1 | 0.11 | 0.56 | 51.2 |
| 12 | R2 | 1 | 100.0 | 0.002 | 7.0 | LOS A | 0.0 | 0.1 | 0.11 | 0.56 | 50.5 |
| Approach | | 2 | 100.0 | 0.002 | 6.7 | LOS A | 0.0 | 0.1 | 0.11 | 0.56 | 50.8 |
| All Vehicles | | 177 | 4.8 | 0.056 | 2.8 | NA | 0.1 | 0.5 | 0.03 | 0.29 | 56.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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# MOVEMENT SUMMARY

## Site: 101 [PM]

Design afternoon peak hour traffic
Giveway / Yield (Two-Way)

**Movement Performance - Vehicles**

| Mov ID | OD Mov | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate per veh | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Kingaroy Barkers Creek Road (S) | | | | | | | | | | | |
| 1 | L2 | 1 | 100.0 | 0.034 | 6.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.02 | 55.8 |
| 2 | T1 | 62 | 5.1 | 0.034 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.02 | 59.9 |
| Approach | | 63 | 6.7 | 0.034 | 0.2 | NA | 0.0 | 0.0 | 0.00 | 0.02 | 59.8 |
| North: Kingaroy Barkers Creek Road (N) | | | | | | | | | | | |
| 8 | T1 | 26 | 4.0 | 0.015 | 0.0 | LOS A | 0.0 | 0.1 | 0.02 | 0.04 | 59.7 |
| 9 | R2 | 1 | 100.0 | 0.015 | 6.4 | LOS A | 0.0 | 0.1 | 0.02 | 0.04 | 54.9 |
| Approach | | 27 | 7.7 | 0.015 | 0.5 | NA | 0.0 | 0.1 | 0.02 | 0.04 | 59.5 |
| West: Construction access (W) | | | | | | | | | | | |
| 10 | L2 | 9 | 11.1 | 0.071 | 5.9 | LOS A | 0.2 | 1.7 | 0.17 | 0.57 | 52.7 |
| 12 | R2 | 77 | 1.4 | 0.071 | 5.8 | LOS A | 0.2 | 1.7 | 0.17 | 0.57 | 52.6 |
| Approach | | 86 | 2.4 | 0.071 | 5.8 | LOS A | 0.2 | 1.7 | 0.17 | 0.57 | 52.6 |
| All Vehicles | | 177 | 4.8 | 0.071 | 2.9 | NA | 0.2 | 1.7 | 0.08 | 0.29 | 56.0 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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**ATTACHMENT 4**
**RESPONSES TO PO15, PO16 AND PO17 OF STATE CODE 1**

# State code 1: Development in a state-controlled road environment

## Table 1.2.1: Development in a state-controlled road environment (Extract)

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| Vehicular access to a state-controlled road | | |
| **PO15** Vehicular access to a state-controlled road that is a limited access road is consistent with government policy for the management of limited access roads. | **AO15.1** Development does not require new or changed access to a limited access road.<br><br>Note: Limited access roads are declared by the transport chief executive under section 54 of the *Transport Infrastructure Act 1994* and are identified in the DA mapping system.<br>OR | Kingaroy Barkers Creek Road is not a limited access road. |
| | **AO15.2** A new or changed access to a limited access road is consistent with the limited access policy for the state-controlled road.<br><br>Note: Limited access policies for limited access roads declared under the *Transport Infrastructure Act 1994* can be obtained by contacting the relevant Department of Transport and Main Roads regional office.<br>AND | |
| | **AO15.3** Where a new or changed access is for a service centre, access is consistent with the Service centre policy, Department of Transport and Main Roads, 2013 and the Access policy for roadside service centre facilities on limited access roads, Department of Transport and Main Roads, 2013, and the Service centre strategy for the state-controlled road. | |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| | Note: The Service centre policy, Department of Transport and Main Roads, 2013, Access policy for roadside service centre facilities, Department of Transport and Main Roads, 2013 and the relevant Service centre strategy for a state-controlled road can be accessed by contacting the relevant Department of Transport and Main Roads regional office. | |
| **PO16** The location and design of vehicular access to a state-controlled road (including access to a limited access road) does not create a safety hazard for users of a state-controlled road or result in a worsening of operating conditions on a state-controlled road.<br><br>Note: Where a new or changed access between the premises and a state-controlled road is proposed, the Department of Transport and Main Roads will need to assess the proposal to determine if the vehicular access for the development is safe. An assessment can be made by Department of Transport and Main Roads as part of the development assessment process and a decision under section 62 of *Transport Infrastructure Act 1994* issued. | **AO16.1** Vehicular access is provided from a local road. | The subject site does not have frontage to any local roads. |
| | OR all of the following acceptable outcomes apply:<br><br>**AO16.2** Vehicular access for the development is consistent with the function and design of the state-controlled road.<br>AND | Proposed vehicular access for the development as described in Premise letter RPS0029-L01 is consistent with the function and design of Kingaroy Barkers Creek Road and does not result in a worsening of operating conditions.<br><br>A road safety assessment by an RPEQ or accredited road safety auditor is recommended to ensure the proposed new access to Lot 228/FTZ37463 does not create a safety hazard. |
| | **AO16.3** Development does not require new or changed access between the premises and the state-controlled road.<br><br>Note: A decision under section 62 of the *Transport Infrastructure Act 1994* outlines the approved conditions for use of an existing vehicular access to a state-controlled road. Current section 62 decisions can be obtained from the relevant Department of Transport and Main Roads regional office.<br>AND | The development does not require changed access between Lot 5/SP219361 and Kingaroy Barkers Creek Road.<br><br>A new access between Lot 228/FTZ37473 and Kingaroy Barkers Creek Road requires a decision under section 62 of the *Transport Infrastructure Act 1994*. |
| | **AO16.4** Use of any existing vehicular access to the development is consistent with a decision under section 62 of the *Transport Infrastructure Act 1994*. | Proposed operation of the existing access between Lot 5/SP219361 is consistent with its current operation. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| | Note: The development which is the subject of the application must be of an equivalent use and intensity for which the section 62 approval was issued and the section 62 approval must have been granted no more than 5 years prior to the lodgement of the application.<br>AND | |
| | **AO16.5** Onsite vehicle circulation is designed to give priority to entering vehicles at all times so vehicles do not queue in a road intersection or on the state-controlled road. | Onsite vehicle circulation will not result in vehicles queuing on Kingaroy Barkers Creek Road. |
| **PO17** Vehicular access to a state-controlled road or local road (and associated road access works) are located and designed to not damage or interfere with public passenger transport infrastructure, public passenger services or pedestrian or cycle access to public passenger transport infrastructure and public passenger services. | **AO17.1** Vehicular access and associated road access works are not located within 5 metres of existing public passenger transport infrastructure.<br>AND | No public transport or school bus stops are located on the subject site frontage |
| | **AO17.2** The location and design of vehicular access for a development does not necessitate the relocation of existing public passenger transport infrastructure.<br>AND | |
| | **AO17.3** On-site vehicle circulation is designed to give priority to entering vehicles at all times so vehicles using a vehicular access do not obstruct public passenger transport infrastructure and public passenger services or obstruct pedestrian or cycle access to public passenger transport infrastructure and public passenger services.<br>AND | On-site vehicle circulation will not result in obstruction of public passenger transport infrastructure or services, or pedestrian or cycle access to public passenger transport infrastructure or services. |
| | **AO17.4** The normal operation of public passenger transport infrastructure or public passenger services is not interrupted during construction of the development. | The normal operation of public passenger transport infrastructure and services will not be interrupted during construction. |

**ATTACHMENT 5**
**TRAFFIC IMPACT ASSESSMENT CERTIFICATION**

# CERTIFICATION OF TRAFFIC IMPACT ASSESSMENT REPORT

## REGISTERED PROFESSIONAL ENGINEER QUEENSLAND

**FOR**

| | |
|---|---|
| **Project Title** | Kingaroy Solar Farm – Traffic Engineering Advice |

As a professional engineer registered by the Board of Professional Engineers of Queensland pursuant to the *Professional Engineers Act 2002* as competent in my areas of nominated expertise, I understand and recognise:

- The significant role of engineering as a profession; and that
- The community has a legitimate expectation that my certification affixed to this engineering work can be trusted; and that
- I am responsible for ensuring its preparation has satisfied all necessary standards, conduct and contemporary practice.

As the responsible RPEQ, I certify:

i) I am satisfied that all submitted components comprising this traffic impact assessment, listed in the following table, have been completed in accordance with the Guide to Traffic Impact Assessment published by the Queensland Department of Transport and Main Roads and using sound engineering principles; and
ii) Where specialised areas of work have not been under my direct supervision, I have reviewed the outcomes of the work and consider the work and its outcomes as suitable for the purposes of this traffic impact assessment; and that
iii) The outcomes of this traffic impact assessment are a true reflection of results of assessment; and that
iv) I believe the strategies recommended for mitigating impacts by this traffic impact assessment, embrace contemporary practice initiatives and will deliver the desired outcomes.

| | |
|---|---|
| **Name** | Chris Porter |
| **RPEQ No.** | 13964 |
| **RPEQ Competencies** | Civil |
| **Email** | Chris.Porter@premise.com.au |
| **Postal Address** | PO Box 1122<br>MACKAY QLD 4740 |
| **Signature** | |
| **Date** | 24 October 2017 |

| **Traffic impact assessment components to which this certification applies** | ☒ |
|---|---|
| ***1. Introduction*** | |
| Background | ☒ |
| Scope and study area | ☒ |
| Pre-lodgement meeting notes | ☐ |
| **2. *Existing Conditions*** | |
| Land use and zoning | ☒ |
| Adjacent land uses / approvals | ☒ |
| Surrounding road network details | ☒ |
| Traffic volumes | ☒ |
| Intersection and network performance | ☐ |
| Road safety issues | ☒ |
| Site access | ☒ |
| Public transport (if applicable) | ☐ |
| Active transport (if applicable) | ☐ |
| Parking (if applicable) | ☐ |
| Pavement (if applicable) | ☐ |
| Transport infrastructure (if applicable) | ☐ |
| **3. *Proposed Development Details*** | |
| Development site plan | ☒ |
| Operational details (including year of opening each stage and any relevant catchment / market analysis) | ☒ |
| Proposed access and parking | ☒ |
| **4. *Development Traffic*** | |
| Traffic generation (by development stage if relevant and considering light and heavy vehicle trips) | ☒ |
| Trip distribution | ☒ |
| Development traffic volumes on the network | ☒ |
| **5. *Impact Assessment and Mitigation*** | |
| With and without development traffic volumes | ☒ |
| Construction traffic impact assessment and mitigation (if applicable) | ☒ |
| Road safety impact assessment and mitigation | ☐ |
| Access and frontage impact assessment and mitigation | ☒ |
| Intersection delay impact assessment and mitigation | ☐ |
| Road link capacity assessment and mitigation | ☐ |
| Pavement impact assessment and mitigation | ☐ |
| Transport infrastructure impact assessment and mitigation | ☐ |
| Other impacts assessment relevant to the specific development type / location (if applicable) | ☐ |
| **6. *Conclusions and Recommendations*** | |
| Summary of impacts and mitigation measures proposed | ☒ |
| Certification statement and authorisation | ☒ |

# Appendix C Residential Access Sight Distance Assessment (Premise SISD, 2019)

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

**Traffic Impact Assessment**

**M Renewables Australia Developments Pty Ltd**

SLR Project No.: 620.041577.00001

18 February 2025

SLR

1300 017 736
mail@premise.com.au
**premise.com.au**

Our Ref: RPS0029-L04-BIJ

Contact: Bradley Jones

18 June 2019

The Manager
Terrain Solar
PO Box 1113
**MANLY NSW 2095**

Attention: Mr Tom Allen

Dear Tom

**KINGAROY SOLAR FARM**
**RESIDENTIAL ACCESS SIGHT DISTANCE ASSESSMENT**

Premise Australia Pty Ltd (Premise) provides the following statement regarding sight distance at the proposed access to the existing residence on the northern portion of Lot 5 / SP219361.

**Background**

A letter (RPS0029-L01-JTP) dated 24 October 2017 from Premise to Terrain Solar regarding "Kingaroy Solar Farm: Traffic Engineering Advice" provided a desk-top assessment of a proposal for a second access to Kingaroy Solar Farm on Lots 4 and 5 on SP219316, and 288 on FTZ37463. The proposed second access for the three (3) lots was intended to be used in the short term for construction and, post construction, as permanent access to the existing residence on the northern portion of Lot 5. RPS0029-L01-JTP recommended that the new access on Kingaroy Barkers Creek Road be located 193m south of the Shellbacks Road intersection near the centre of an approximately 400m long straight. At this location the access would provide Approach Sight Distance (ASD) and Minimum Gap Sight Distance (MGSD) for a design speed of 110km/h (10km/h above the posted speed limit) in accordance with the Normal Design Doman (NDD). However, RPS0029-L01-JTP noted that it was probably not possible to achieve Safe Intersection Sight Distance (SISD) on the 400m long straight for a design speed of 110km/h in accordance with the NDD.

A Decision Notice – Permitted Road Access Location dated 29 January 2018 from the Department of Transport and Main Roads (TMR) approved the access arrangement shown by the Layout Plan prepared by RPS dated 12 December 2017, reference PR136472-3-03A, as amended in red by TMR dated 25 January 2018 (refer Attachment A). Note that:

- Construction access has been approved as proposed;
- Operational access has been conditioned to be relocated 70m to the west;
- Residential access has been conditioned to be combined with the operational access on the property's southern frontage.

The Decision Notice requires both the construction access and the combined operational / residential access to be constructed to the same standard, that is unsealed access generally in accordance with Plan No. D12-1 Standard Access type A-1 Size 6.

We understand that it is unacceptable for Terrain Solar to have the operational and residential access combined, and Terrain Solar has been liaising with TMR to obtain approval for the construction access to be used as the residential access for the duration of construction, and to remain as the residential access post construction. In response, TMR has requested a sight distance assessment including sight photos to confirm that the construction access will be a safe access point for the residence. TMR has specifically requested consideration of:

- Stopping Sight Distance (SSD)
- MGSD; and
- SISD.

**Stopping Sight Distance (SSD)**

Figure 1 reproduced from the Guide to Road Design Part 3: Geometric Design (Austroads 2016) illustrates the concept of SSD. It is measured between a driver (eye height = 1.1m) and a hazard on the road that cannot be driven over (object height = 0.2m).

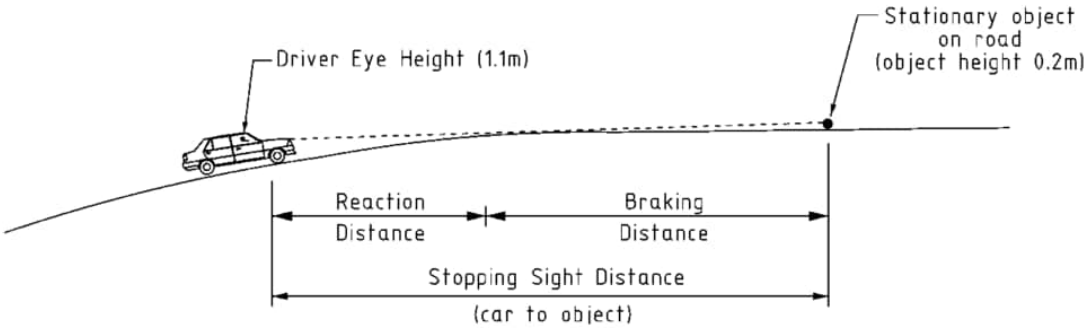



*Figure 1: Stopping Sight Distance (reproduced from Austroads Guide to Road Design Part 3)*

SSD is calculated using the formula

$$SSD = \frac{R_T \times V}{3.6} + \frac{V^2}{254 \times (d + 0.01 \times a)}$$

where

$R_T$ = reaction time
= 2.0sec (general minimum)

V = design speed
= 110km/h (10km/h above the posted speed limit for Kingaroy Barkers Creek Road)

d = coefficient of deceleration
= 0.36 (normal maximum)

a = longitudinal grade
= 0% (for level grade of Kingaroy Barkers Creek Road)

Therefore, SSD for the Kingaroy Barkers Creek Road is 193m.

**Minimum Gap Sight Distance (MGSD)**

The Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads 2017) defines MGSD as the distance corresponding to the critical acceptance gap that drivers are prepared to accept when undertaking a crossing or turning manoeuvre at intersections. It is measured from the point of conflict (between approaching and entering vehicles) back along the centre of the travel lane of the approaching vehicle. The drivers eye height is 1.1m and the object height is 0.65m above the travelled way (a vehicle indicator light).

MGSD is calculated using the formula

$$MGSD = t_c \times \frac{V}{3.6}$$

where $t_c$ is the critical acceptance gap. According to Table 3.5 of Austroads Guide to Road Design Part 4A the critical acceptance gap relevant to an intersection / access on a two-lane / two-way road such as Kingaroy Barkers Creek Road is five (5) seconds. Therefore, MGSD for Kingaroy Barkers Creek Road is 153m

**Safe Intersection Sight Distance (SISD)**

SISD is the distance at which a driver on the major road can see another vehicle at the intersection or access moving into a collision position, recognise the collision situation developing and stop before colliding with the other vehicle. Figure 2 reproduced from the Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads 2017) illustrates the concept of SISD. It is measured between a driver (eye height = 1.1m) and the upper part of a car (object height = 1.25m).

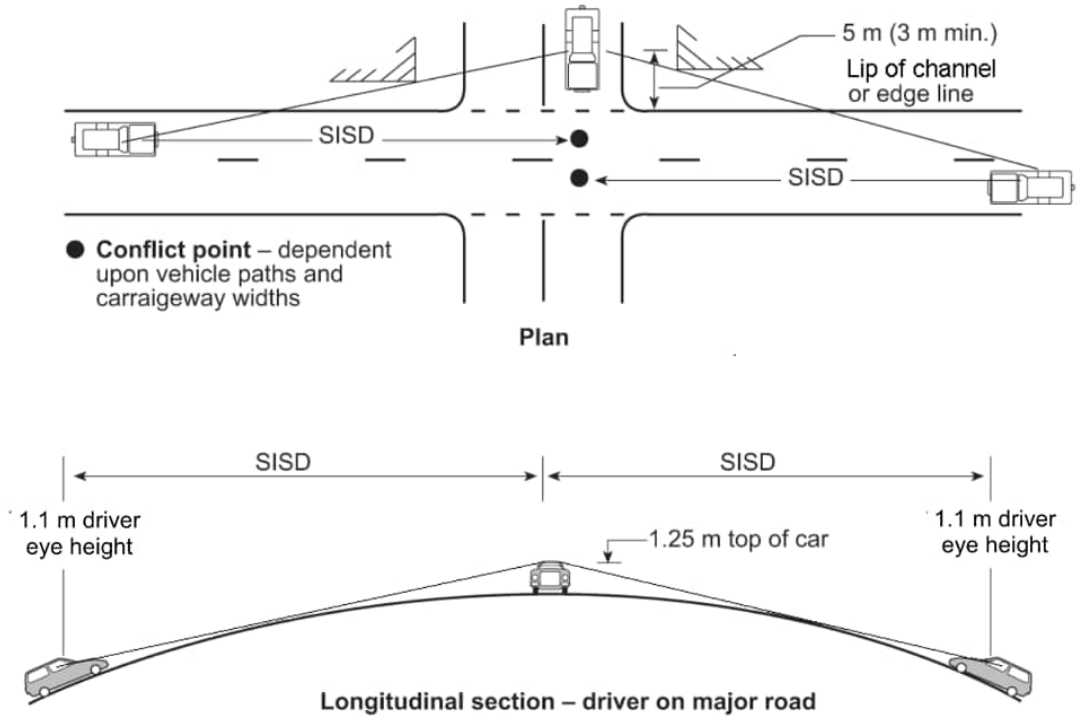



*Figure 2: Safe Intersection Sight Distance (reproduced from Austroads Guide to Road Design Part 4A)*

SISD is calculated using the formula

$$SISD = \frac{D_T \times V}{3.6} + \frac{V^2}{254 \times (d + 0.01 \times a)}$$

where the meaning of variables is as above with decision time, $D_T$, being the sum of reaction time, $R_T$, and 3sec observation time.

Using the Normal Design Domain (NDD) parameter values previously defined, SISD for Kingaroy Barkers Creek Road is 285m

**Site Inspection**
A site inspection was conducted by Mr David Bobyreff RPEQ on 18 June 2019. Relevant photos are enclosed as Attachment B. The approved construction access (and proposed residential access) had not been constructed at the time of the inspection. The access location is on the opposite side of the road to the parked white sedan.

During the site inspection it was observed that:

- The access location complies with the SSD requirement of 193m;
- Vehicles on Kingaroy Barkers Creek Road are visible from the access for more than six (6) seconds before reaching it which complies with MGSD requirements; and
- The driver of a vehicle approaching the access can see the top of a vehicle waiting at the access from a distance of approximately 200m when approaching from the south and 210m when approaching from the north. This does not comply with the NDD standard for SISD.

**Extended Design Doman (EDD)**
Austroads Guide to Road Design Part 4A states that the EDD is a range of values outside the NDD that through research and / or experience, particular road agencies have found to provide a suitable solution in constrained situations. EDD for sight distance at intersections is calculated by the same process as that used for the NDD intersection sight distance. The main difference with EDD is that less-conservative values are used for some of the terms. Specifically:

- Observation time, $O_T$, may be reduced from 3.0sec to 1.5sec for T-intersection two-lane, two-way roads that have a traffic volumes less than 4,000 veh/d. (According to Queensland Globe, 2017 annual average daily traffic (AADT) on Kingaroy Barkers Creek Road was 652veh/d); and
- Coefficient of deceleration, d, may be increased from 0.36 ($90^{th}$ percentile value for braking on wet, sealed roads) to 0.46 (mean value for braking on wet, sealed roads for a hazard.

Using the EDD parameter values defined above, SISD for Kingaroy Barkers Creek Road is 211m.

To achieve compliance with SISD requirements for the EDD would require clearing of trees on the western side of Kingaroy Barkers Creek Road to the south of the access as shown by Figure 3.

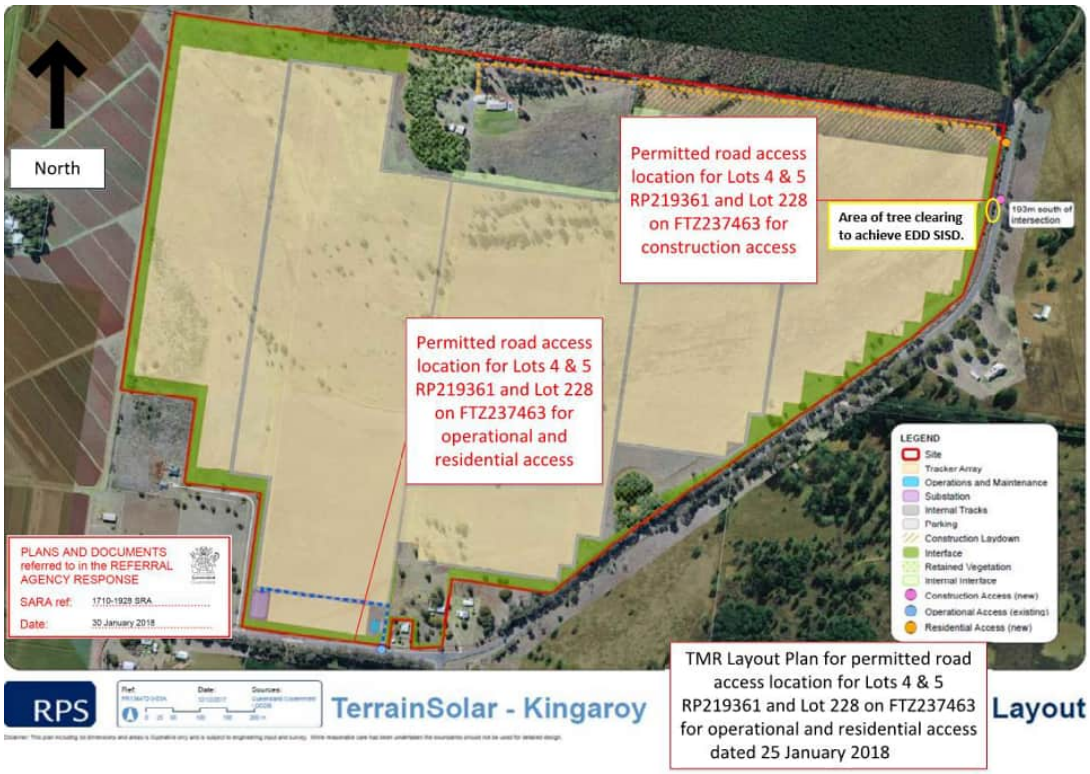



*Figure 3: Area of tree clearing to achieve EDD SISD*

**Domestic Access**

The Guide to Traffic Impact Assessment (Transport and Main Roads, December 2018) states:

Public road intersections should have Safe Intersection Sight Distance (SISD) unless the characteristics of the road or the site totally preclude it. In those circumstances, minimum gap sight distance should be provided.

The Guide to Traffic Impact Assessment's specification of public road intersections implies that this criterion does not necessarily apply to property accesses. In light of this, it is considered acceptable for the proposed residential access to comply with NDD requirements for SSD and MGSD.

It is also noted that TMR has approved the proposed residential access location as a construction access which is expected to accommodate up to 160 light vehicle movements and 22 heavy vehicle movements each day over the approximately eight (8) month long Kingaroy Solar Farm construction period. As a residential access, the access is expected to accommodate no more than 10 light vehicles per day. With a traffic generation that is just 5.5% of the peak construction traffic generation and little or no heavy vehicle traffic, the potential likelihood of an accident at the residential access is much less than at the construction access.

**Conclusions and Recommendations**

The approved construction access complies with NDD requirements for SSD and MGSD. To achieve compliance with SISD requirements for the EDD would require clearing of trees on the western side of Kingaroy Barkers Creek Road to the south of the access. Noting that the traffic generated by the residence on the northern portion of Lot 5 / SP219361 is likely to be just 5.5% if the peak construction traffic generation with little or no heavy vehicle traffic, the potential likelihood of an accident will be much less as a residential access.

Therefore, we recommend that the access be approved for construction of the Kingaroy Solar Farm as well as for the residence on the northern portion of Lot 5 / SP219361 for the duration of construction, and to remain as the residential access post construction.

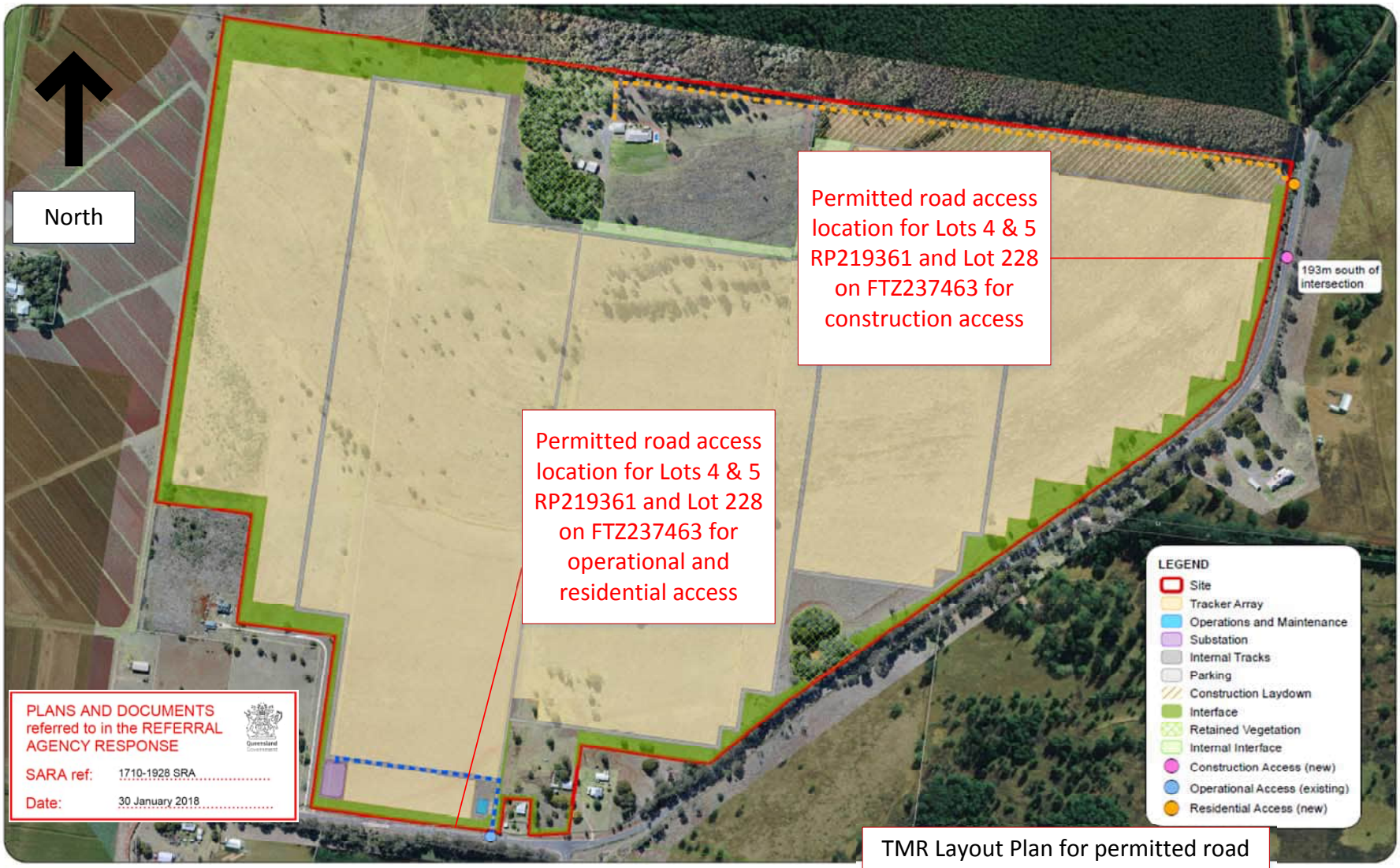
If you have any queries in relation to the above please contact Mr Bradley Jones on (07) 4772 0666.

Yours sincerely

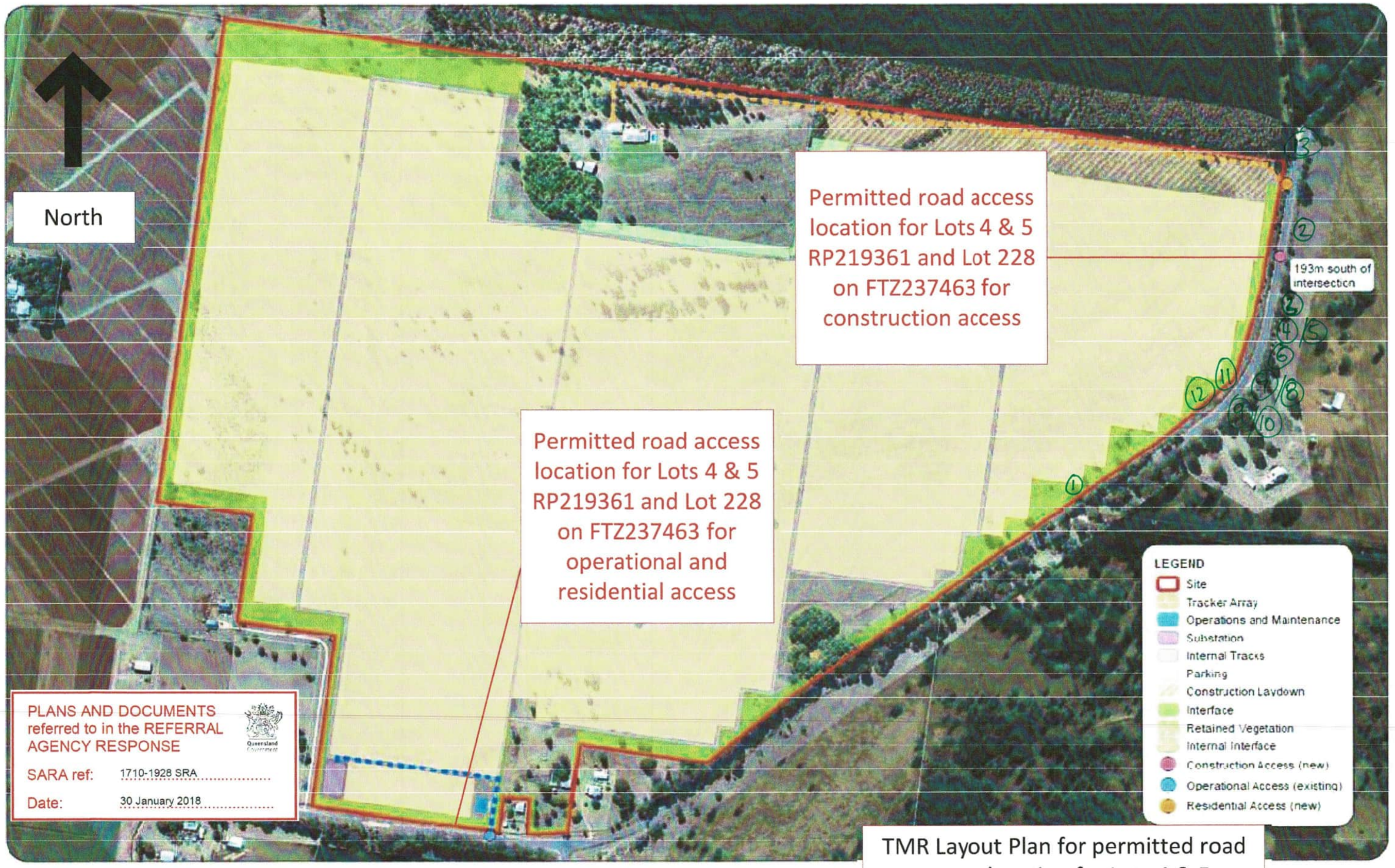
**Bradley Jones RPEQ 19986**
**Traffic Engineer**
**Premise**

Enc: Attachment A – Approved Access Locations
Attachment B – Site Inspection Photos

# Attachment A
# Approved Access Locations


North
Permitted road access location for Lots 4 & 5 RP219361 and Lot 228 on FTZ237463 for construction access
193m south of intersection
Permitted road access location for Lots 4 & 5 RP219361 and Lot 228 on FTZ237463 for operational and residential access
LEGEND
Site
Tracker Array
Operations and Maintenance
Substation
Internal Tracks
Parking
Construction Laydown
Interface
Retained Vegetation
Internal Interface
Construction Access (new)
Operational Access (existing)
Residential Access (new)
PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE
SARA ref: 1710-1928 SRA
Date: 30 January 2018
RPS
Ref:
Date:
Sources:
TerrainSolar - Kingaroy
Layout
TMR Layout Plan for permitted road access location for Lots 4 & 5 RP219361 and Lot 228 on FTZ237463 for operational and residential access

# Attachment B
# Site Inspection Photos




RPS

Ref | Date | Sources

TerrainSolar - Kingaroy

TMR Layout Plan for permitted road access location for Lots 4 & 5 RP219361 and Lot 228 on FTZ237463 for operational and residential access dated 25 January 2018

Layout



Photo 1 – Looking Northbound on Kingaroy-Barkers Creek Road



Photo 2 – Looking Southbound on Kingaroy-Barkers Creek Road



Photo 3 – Looking Northbound on Kingaroy-Barkers Creek Road



Photo 4 – Looking Southbound on Kingaroy-Barkers Creek Road



Photo 5 – Looking Northbound on Kingaroy-Barkers Creek Road



Photo 6 – Looking Southbound on Kingaroy-Barkers Creek Road



Photo 7 – Looking Souththbound on Kingaroy-Barkers Creek Road



Photo 8 – Looking Northbound on Kingaroy-Barkers Creek Road



Photo 9 – Looking Southbound on Kingaroy-Barkers Creek Road



Photo 10 – Looking Northbound on Kingaroy-Barkers Creek Road



Photo 11 – Looking Northbound on Kingaroy-Barkers Creek Road



Photo 12 – Looking Southbound on Kingaroy-Barkers Creek Road



Photo 13 – Looking Northbound on Kingaroy-Barkers Creek Road

# Appendix D Traffic Flow Diagrams

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

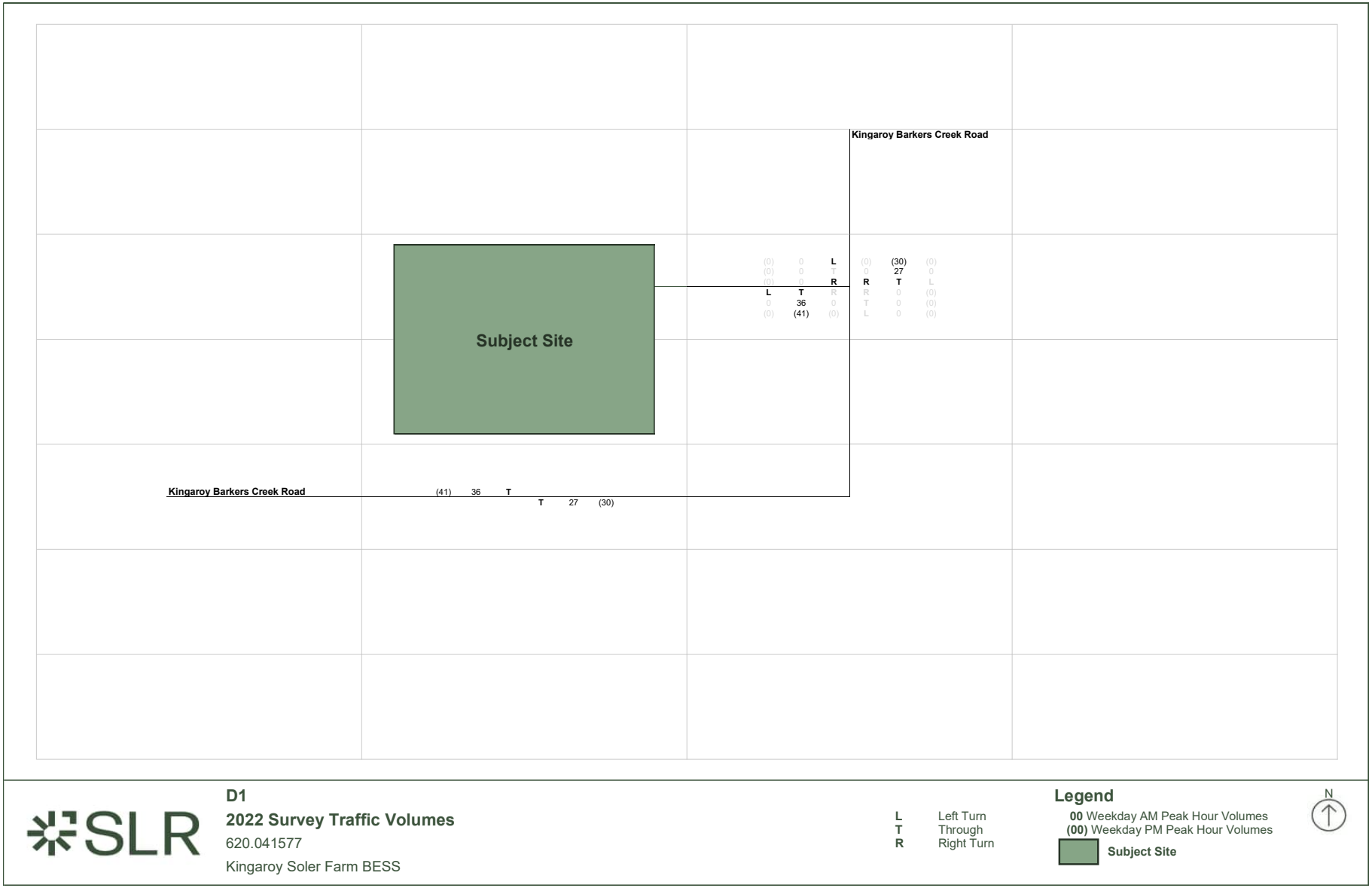
**Traffic Impact Assessment**

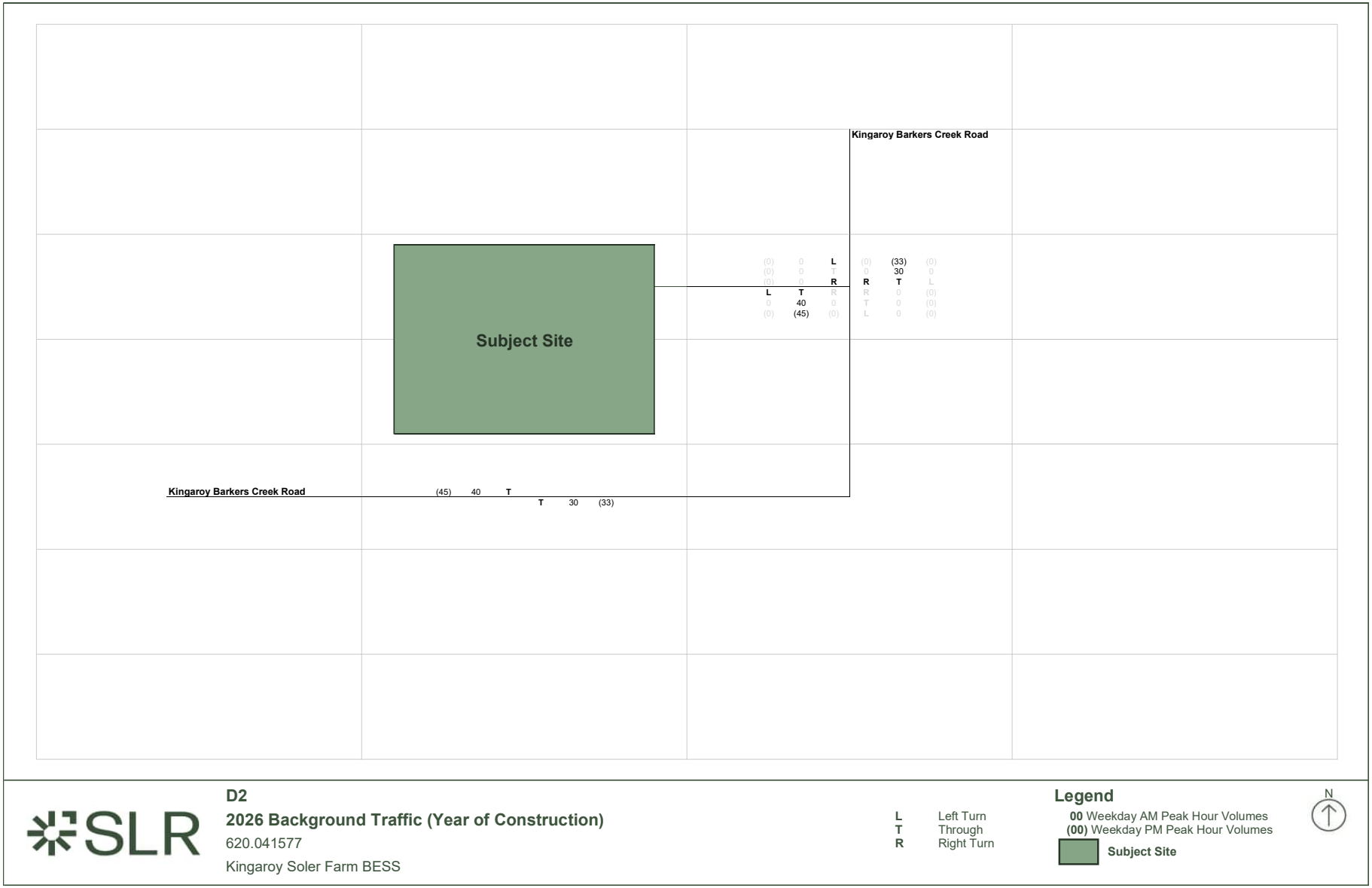
**M Renewables Australia Developments Pty Ltd**

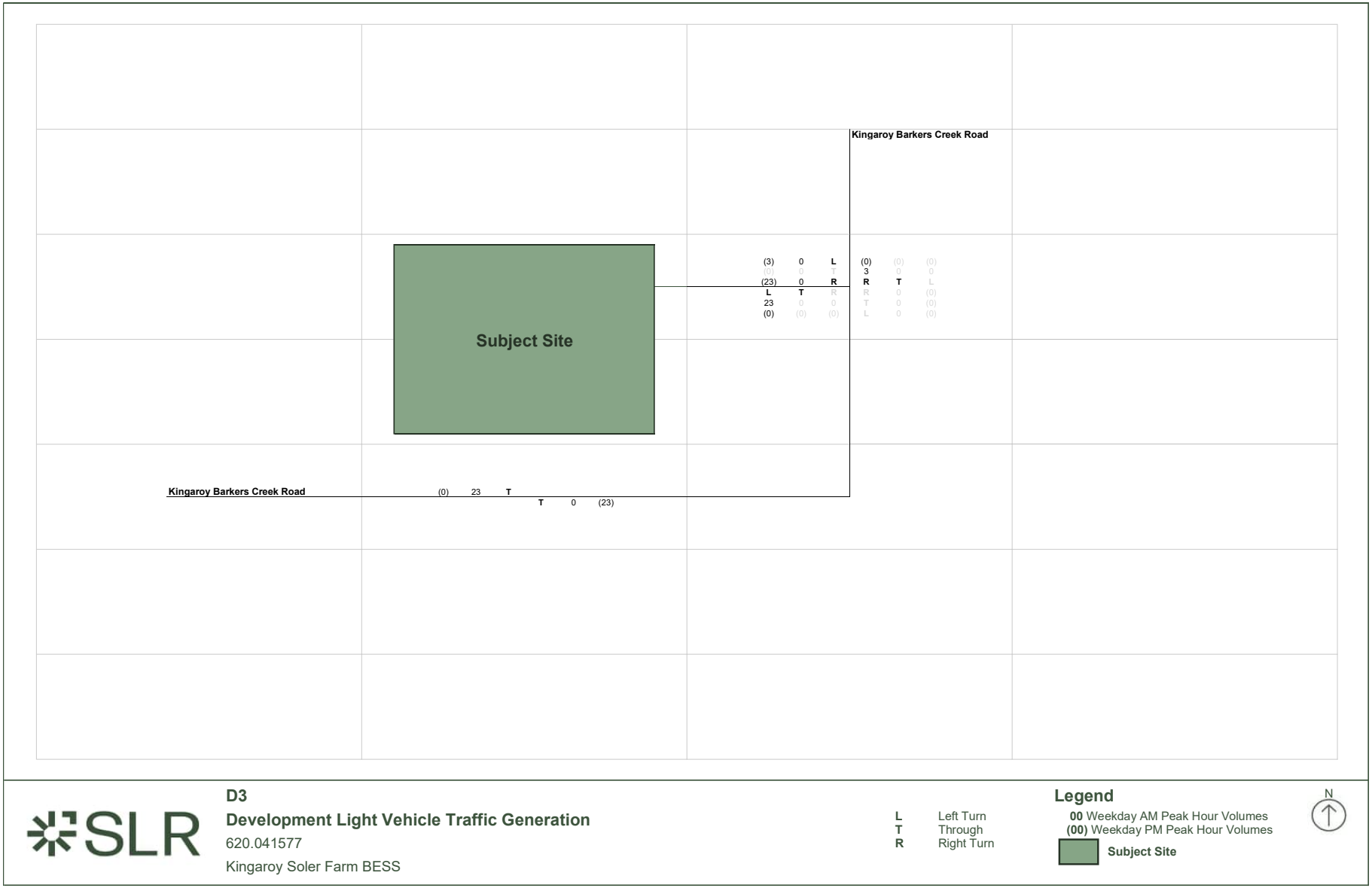
SLR Project No.: 620.041577.00001

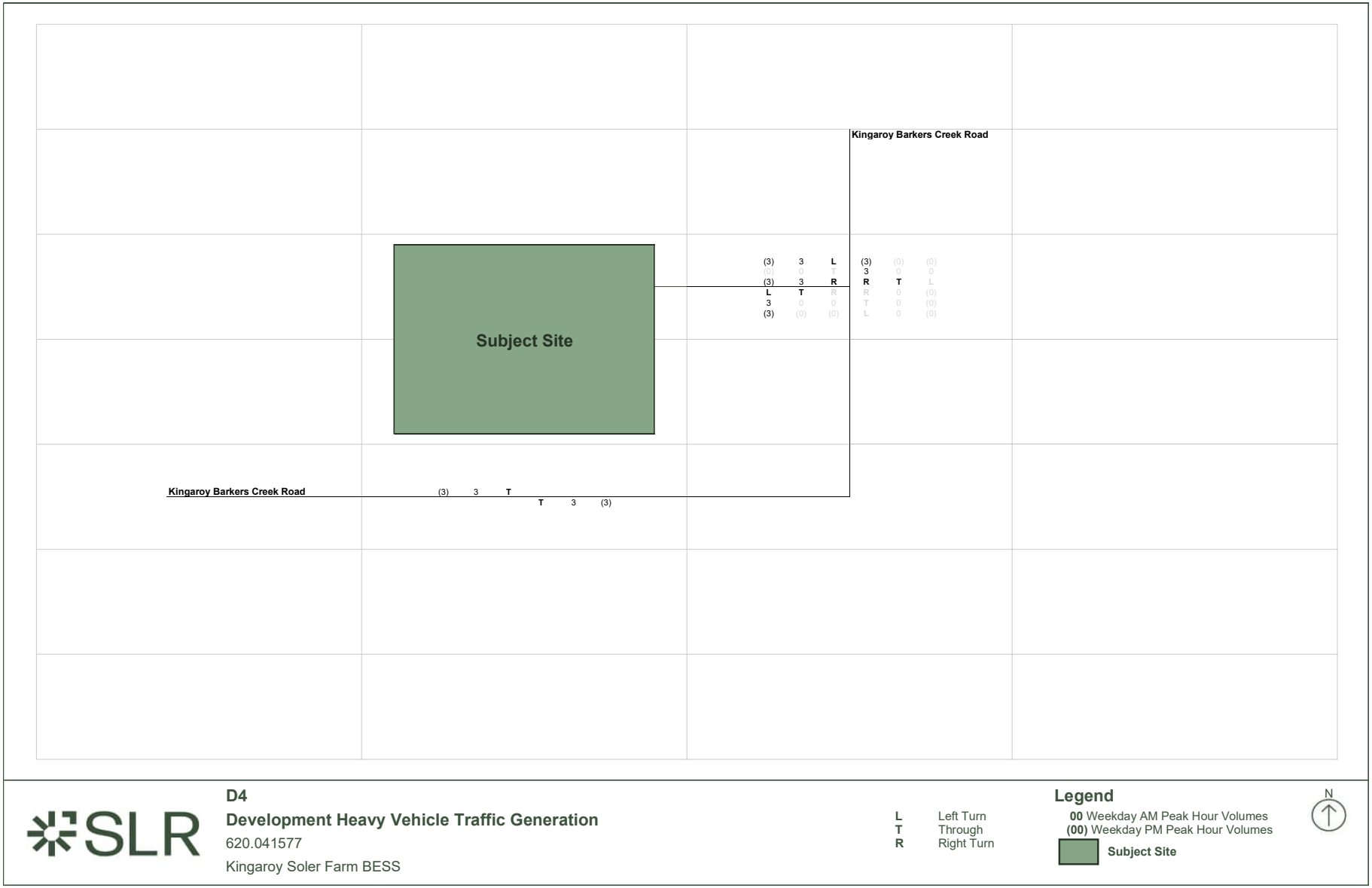
18 February 2025

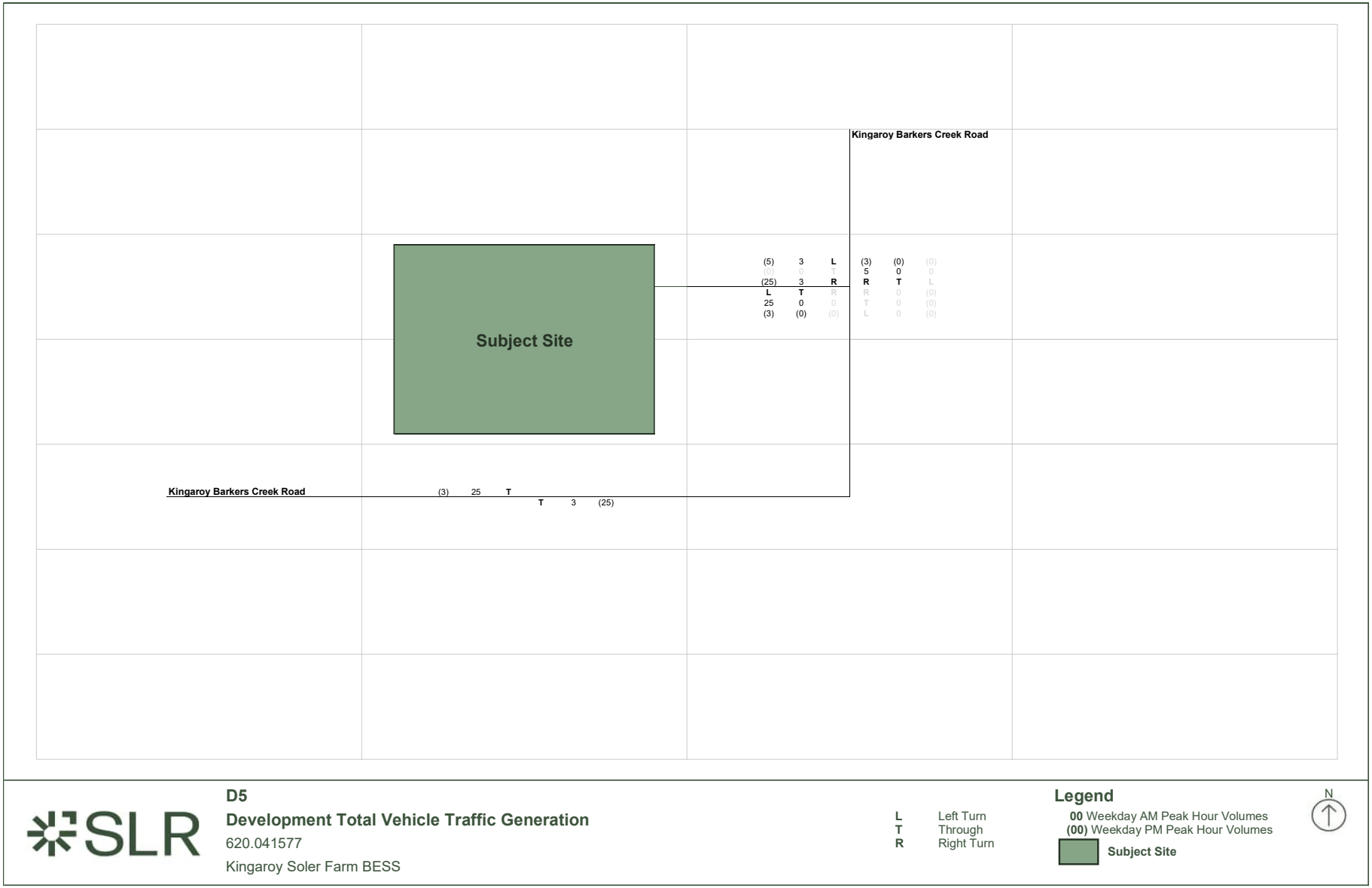
SLR

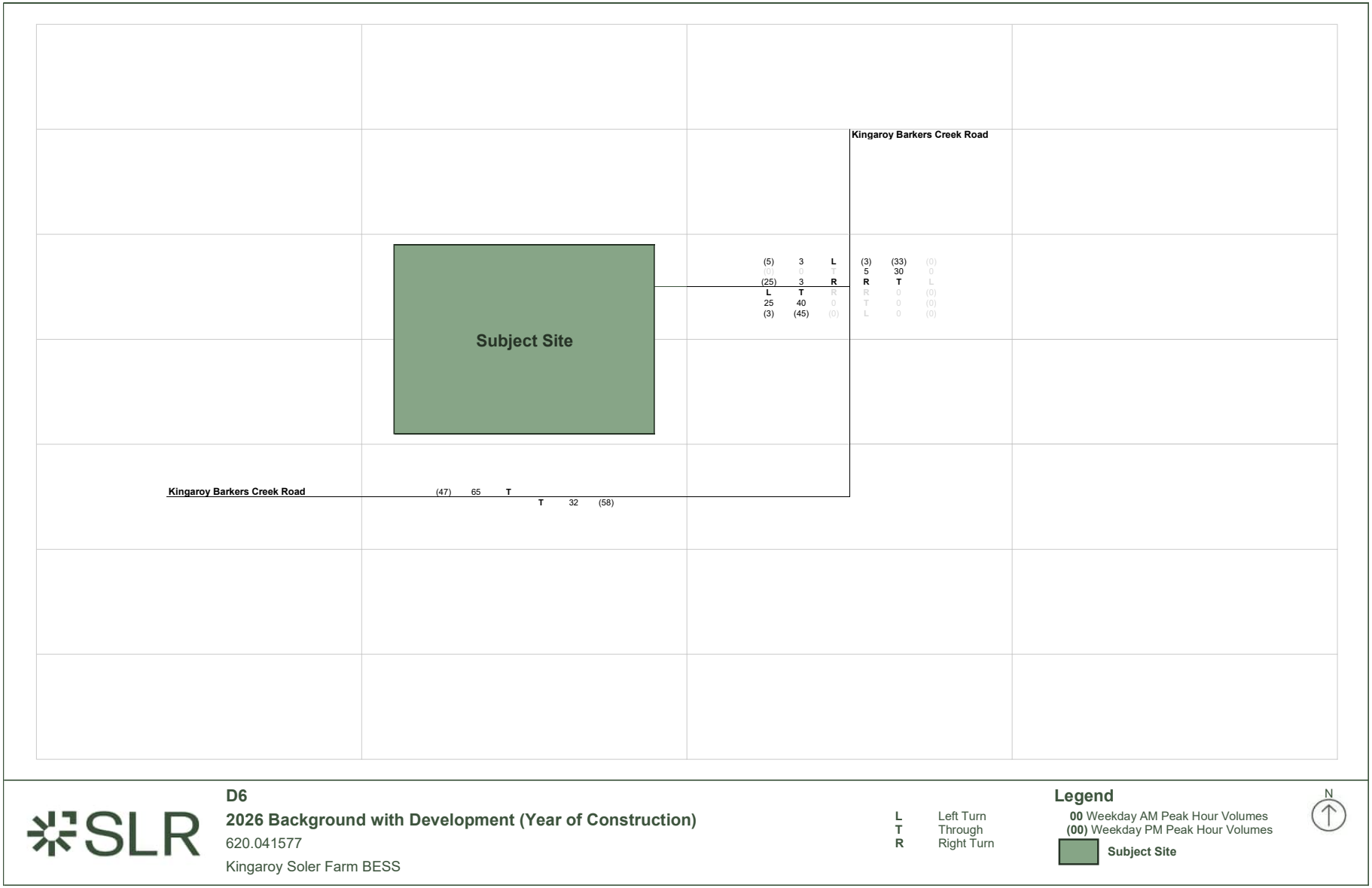

Kingaroy Barkers Creek Road
Subject Site
(0) 0 L
(0) 0 T
(0) 0 R
L T R
0 36 0
(0) (41) (0)
(0) (30) (0)
0 27 0
R T L
R 0 (0)
T 0 (0)
L 0 (0)
Kingaroy Barkers Creek Road
(41) 36 T
T 27 (30)
D1
2022 Survey Traffic Volumes
620.041577
Kingaroy Soler Farm BESS
L Left Turn
T Through
R Right Turn
Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site
N


Kingaroy Barkers Creek Road
Subject Site
(0) 0 L
(0) 0 T
(0) 0 R
L T R
0 40 0
(0) (45) (0)
(0) (33) (0)
0 30 0
R T L
R 0 (0)
T 0 (0)
L 0 (0)
Kingaroy Barkers Creek Road
(45) 40 T
T 30 (33)
D2
2026 Background Traffic (Year of Construction)
620.041577
Kingaroy Soler Farm BESS
L Left Turn
T Through
R Right Turn
Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site
N


Kingaroy Barkers Creek Road
Subject Site
(3) 0 L
(0) 0 T
(23) 0 R
L T R
23 0 0
(0) (0) (0)
(0) (0) (0)
3 0 0
R T L
R 0 (0)
T 0 (0)
L 0 (0)
Kingaroy Barkers Creek Road
(0) 23 T
T 0 (23)
D3
Development Light Vehicle Traffic Generation
620.041577
Kingaroy Soler Farm BESS
L Left Turn
T Through
R Right Turn
Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site
N


Kingaroy Barkers Creek Road
Subject Site
(3) 3 L
(0) 0 T
(3) 3 R
L T R
3 0 0
(3) (0) (0)
(3) (0) (0)
3 0 0
R T L
R 0 (0)
T 0 (0)
L 0 (0)
Kingaroy Barkers Creek Road
(3) 3 T
T 3 (3)
D4
Development Heavy Vehicle Traffic Generation
620.041577
Kingaroy Soler Farm BESS
L Left Turn
T Through
R Right Turn
Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site
N


Kingaroy Barkers Creek Road
Subject Site
(5) 3 L
(0) 0 T
(25) 3 R
L T R
25 0 0
(3) (0) (0)
(3) (0) (0)
5 0 0
R T L
R 0 (0)
T 0 (0)
L 0 (0)
Kingaroy Barkers Creek Road
(3) 25 T
T 3 (25)
D5
Development Total Vehicle Traffic Generation
620.041577
Kingaroy Soler Farm BESS
L Left Turn
T Through
R Right Turn
Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site
N


Kingaroy Barkers Creek Road
Subject Site
(5) 3 L
(0) 0 T
(25) 3 R
L T R
25 40 0
(3) (45) (0)
(3) (33) (0)
5 30 0
R T L
R 0 (0)
T 0 (0)
L 0 (0)
Kingaroy Barkers Creek Road
(47) 65 T
T 32 (58)
D6
2026 Background with Development (Year of Construction)
620.041577
Kingaroy Soler Farm BESS
L Left Turn
T Through
R Right Turn
Legend
00 Weekday AM Peak Hour Volumes
(00) Weekday PM Peak Hour Volumes
Subject Site
N

# Appendix E Turn Warrant Assessment

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

**Traffic Impact Assessment**

**M Renewables Australia Developments Pty Ltd**

SLR Project No.: 620.041577.00001

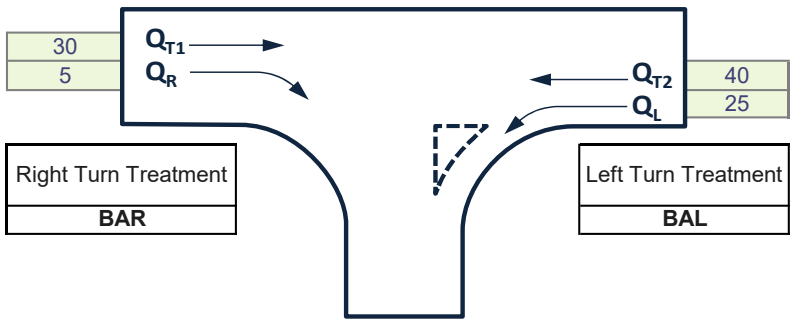
18 February 2025

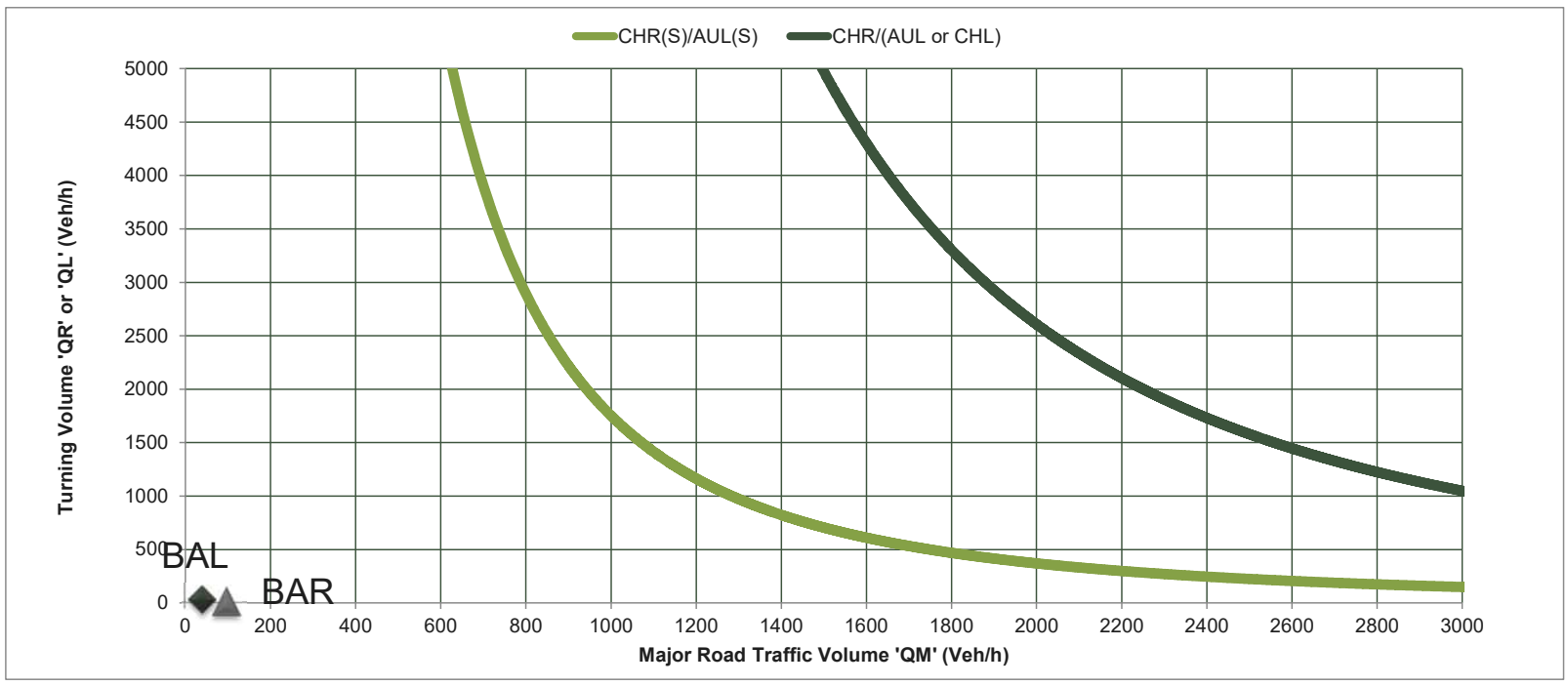
SLR

| | |
|---|---|
| Assessment Year | 2026 |
| Peak Period | AM |
| Scenario | Background + Dev |

| | |
|---|---|
| Design Domain | Extended Design Domain |
| Design Year | 1 |
| Lane Count | 2L2W |
| Design Speed | km/h < Design Speed < 100km/h |
| Splitter Island? | No |

| $Q_M$ | $Q_R/Q_L$ | |
|---|---|---|
| 95 | 5.053846154 | Right |
| 40 | 25.05384615 | Left |

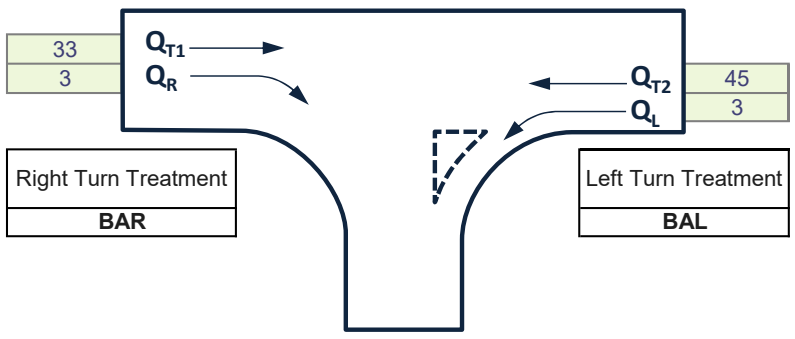


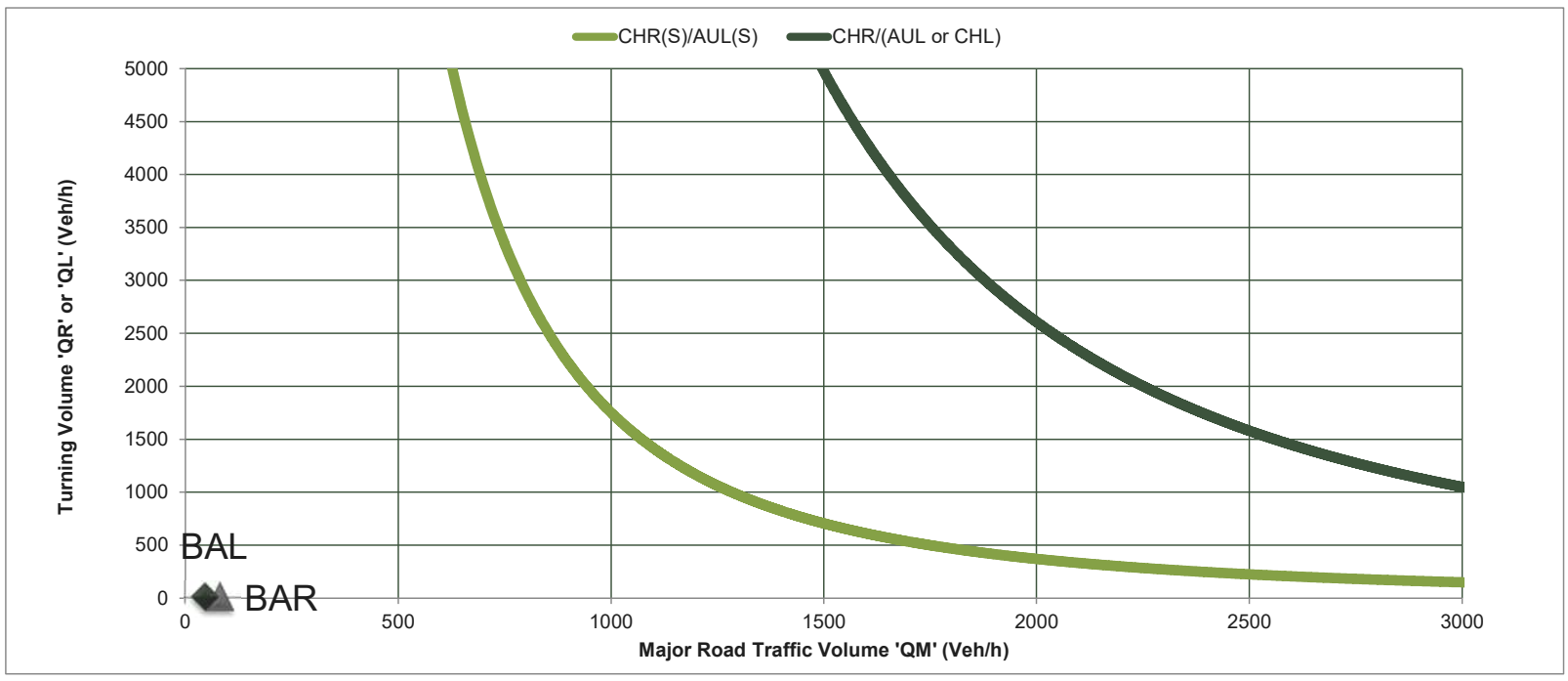




| | |
|---|---|
| Assessment Year | 2026 |
| Peak Period | PM |
| Scenario | Background + Dev |

| | |
|---|---|
| Design Domain | Extended Design Domain |
| Design Year | 1 |
| Lane Count | 2L2W |
| Design Speed | km/h < Design Speed < 100km/h |
| Splitter Island? | No |

| $Q_M$ | $Q_R/Q_L$ | |
|---|---|---|
| 81 | 2.553846154 | Right |
| 45 | 2.553846154 | Left |




Reflects changes made in RPDM (Ed2: Vol3) Supplement to Austroads Part 4A (DTMR - August, 2014)

# Turn Warrant Assessment

Kingaroy Bakers Road / Developmetn Access Intersection
620.041577.00001
10 02 2025

# Appendix F Swept Path Assessment

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

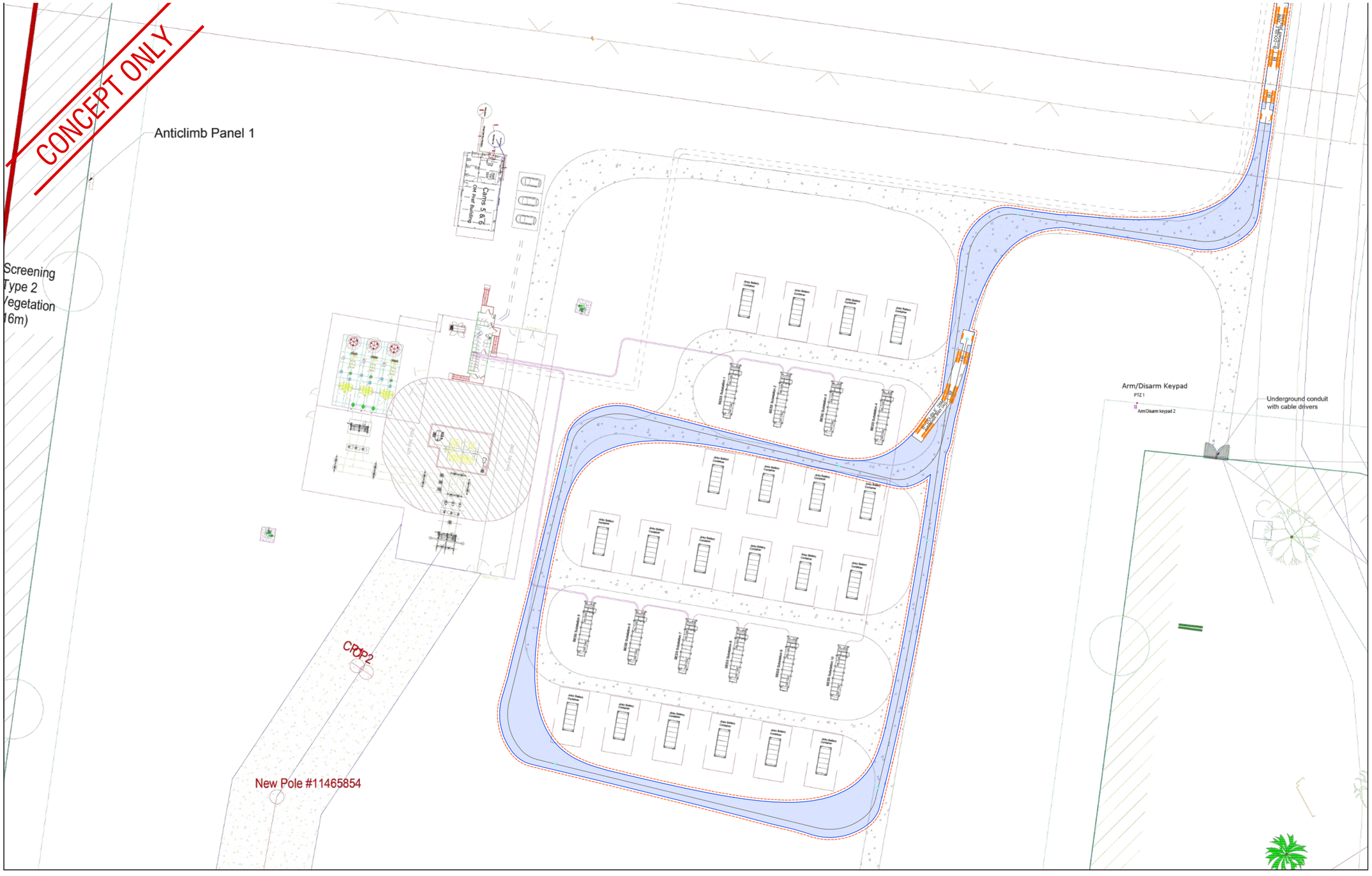
**Traffic Impact Assessment**

**M Renewables Australia Developments Pty Ltd**

SLR Project No.: 620.041577.00001

18 February 2025

SLR




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www.slrconsulting.com

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*SLR Consulting Australia Pty Ltd does not guarantee the*

| | |
|---|---|
| Project No: | 620.041577 |
| Date: | 07/02/2025 |
| Drawn by: | AM |
| Certified by: | NN |
| Sheet Size: | A3 |
| Projection: | - |

SWEPT PATH LEGEND
- Vehicle Path
- Vehicle Body
- Body Clearance

N

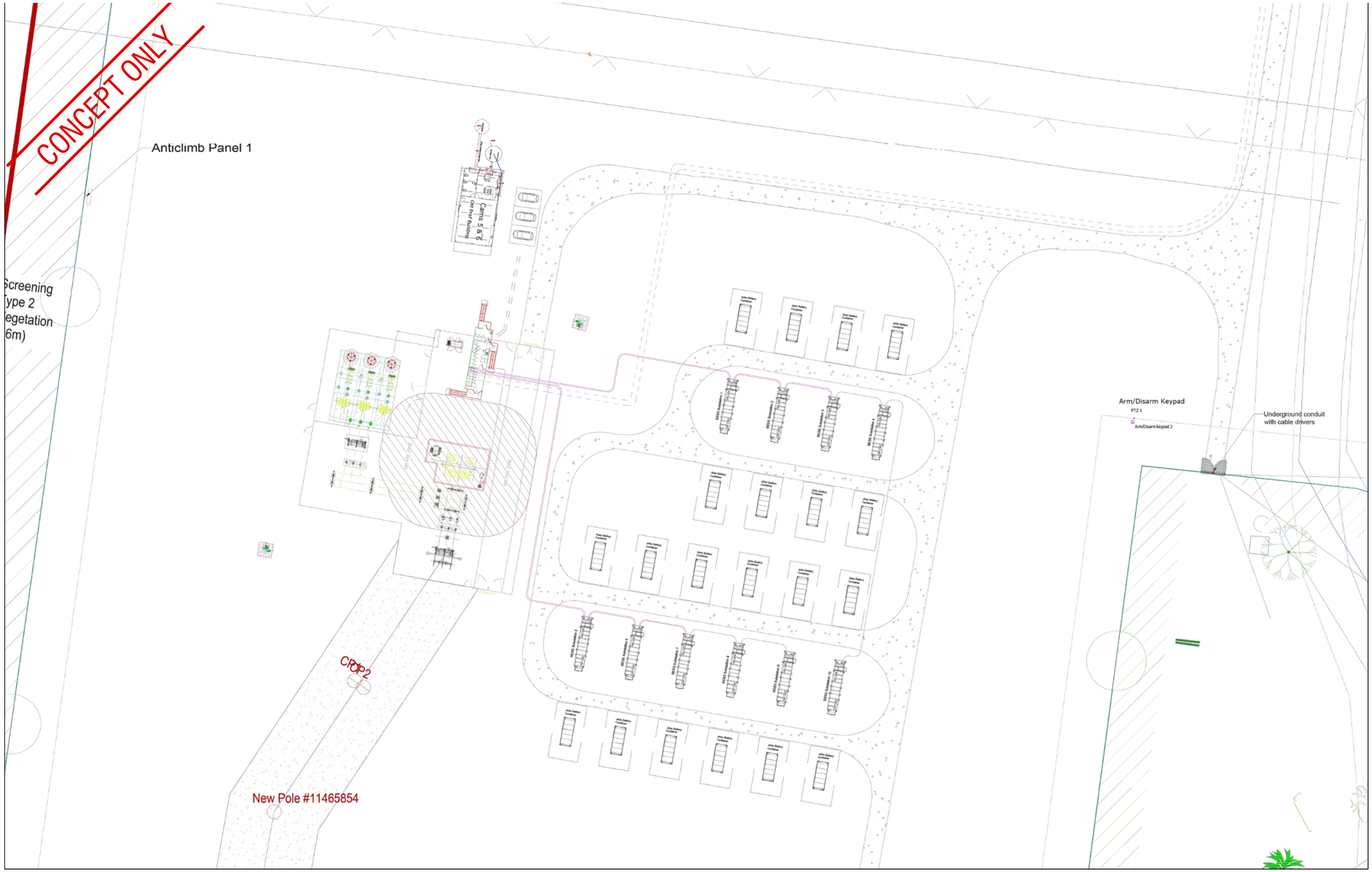
0.0 7.5 15 22.5 30
METRES
SCALE 1:750

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Kingaroy Solar Farm BESS

**Swept Path Assessment: B-Double circulating Battery Storage Area**

FIGURE 01




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SWEPT PATH LEGEND
- Vehicle Path
- Vehicle Body
- Body Clearance

N

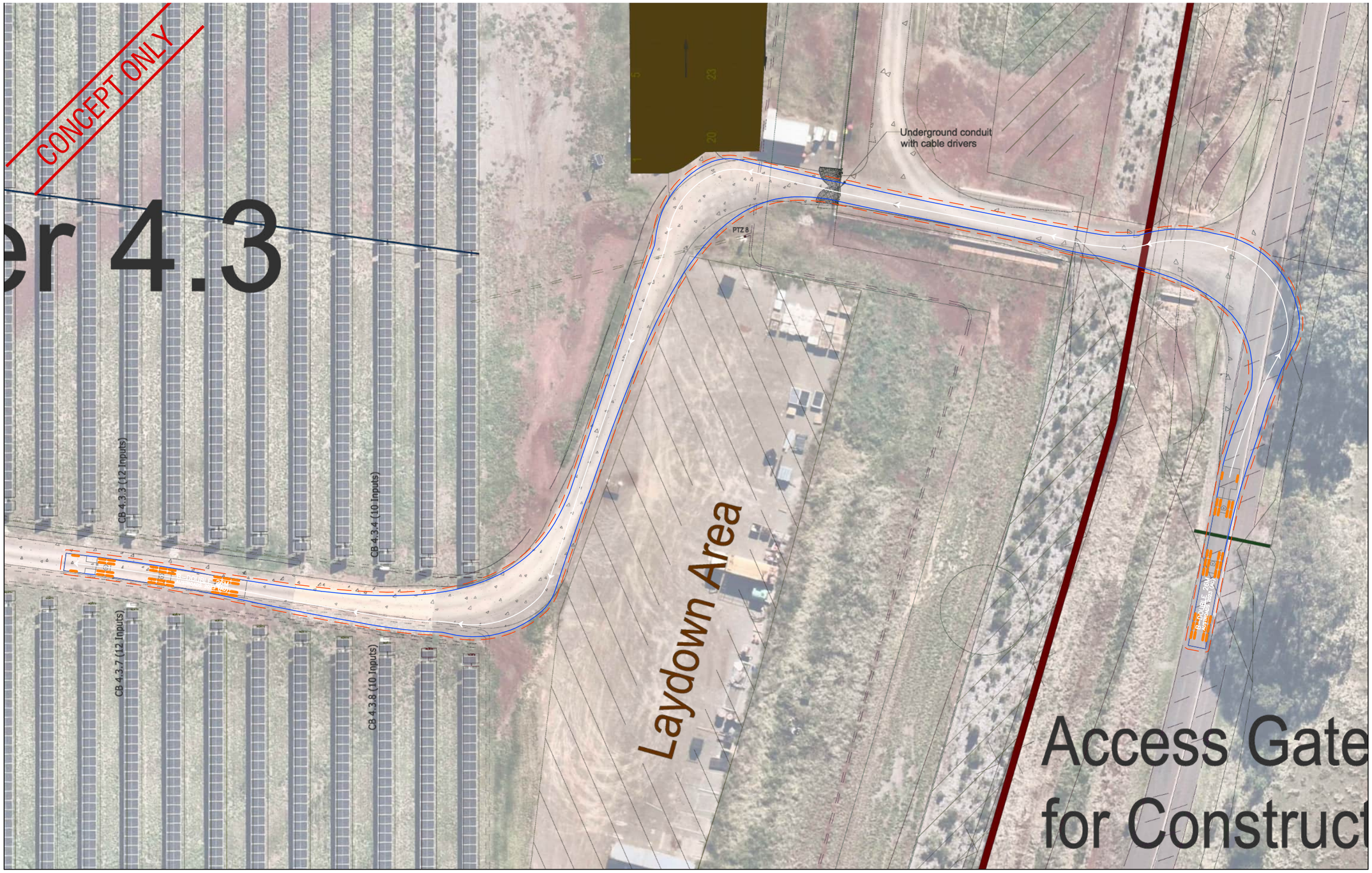
0.0 7.5 15 22.5 30
METRES
SCALE 1:750

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Kingaroy Solar Farm BESS

**12.5m Heavy Rigid Vehicles (Fire Truck) Swept Path Assessment**

FIGURE 02

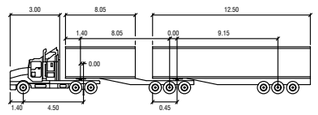



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SWEPT PATH LEGEND
Vehicle Path
Vehicle Body
Body Clearance




B-double

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 23.4 |

N

0.0 7.5 15 22.5 30
METRES

SCALE 1:750

M Renewables Australia Development Pty Ltd

Kingaroy Solar Farm BESS

**Swept Path Assessment: 26m B-Double Access**

FIGURE 03

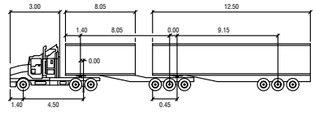



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| Projection: | - |

SWEPT PATH LEGEND
- Vehicle Path
- Vehicle Body
- Body Clearance




B-double

meters

| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 23.4 |

N

0.0 7.5 15 22.5 30
METRES

SCALE 1:750

M Renewables Australia Development Pty Ltd

Kingaroy Solar Farm BESS

**Swept Path Assessment: 26m B-Double Internal Circulation**

FIGURE 04

# Appendix G Code Assessment

## Kingaroy Solar Farm Expansion to Include a Battery Energy Storage System

**Traffic Impact Assessment**

**M Renewables Australia Developments Pty Ltd**

SLR Project No.: 620.041577.00001

18 February 2025

SLR

## State Development Assessment Provisions (SDAP) Code Assessment – State Code 1

The subject development has been assessed against the traffic and transport requirements of the State Development Assessment Provisions (SDAP) v3.1 – State Code 1: Development in a State-Controlled Road Environment in **Table G-1** to **Table G-4** below, where:

- Table G-1 – Development in general (SDAP v3.1 State Code 1 – Table 1.1)
- Table G-2 – Vehicular access, road layout and local roads (SDAP v3.1 State Code 1 – Table 1.2)
- Table G-3 – Network impacts (SDAP v3.1 State Code 1 – Table 1.3)
- Table G-4 – Development in a future state-controlled road environment (SDAP v3.1 State Code 1 – Table 1.6)

**Table G-1 Development in general (SDAP v3.1 State Code 1 – Table 1.1)**

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **Buildings, structures, infrastructure, services and utilities** | | |
| **PO1** The location of the development does not create a safety hazard for users of the **state-controlled road.** | **AO1.1** Development is not located in a **state-controlled road**.<br><br>AND<br><br>**AO1.2** Development can be maintained without requiring access to a **state-controlled road**. | **Complies with PO1**<br>The development will be located on the Kingaroy Solar Farm and access to the site will be obtained via the existing access to the Kingaroy Solar Farm. |
| **PO2** The design and construction of the development does not adversely impact the **structural integrity** or physical condition of the **state-controlled road** or **road transport infrastructure**. | No acceptable outcome is prescribed. | **Complies with PO2**<br>Given the short construction period with a total of only 664 heavy vehicle tips movements during construction, there will be no adverse impact on the structural integrity or physical condition of state-controlled road. |
| **PO3** The location of the development does not obstruct **road transport infrastructure** or | No acceptable outcome is prescribed. | **Complies with PO3** Due to the low volume of existing flows and projected development related flows, no |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| adversely impact the operating performance of the **state-controlled road**. | | adverse impact on the operating performance on state-controlled roads is anticipated. |
| **PO5** The design and construction of buildings and **structures** does not create a safety hazard by distracting users of the **state-controlled road**. | **AO5.1** Facades of buildings and **structures** fronting the **state-controlled road** are made of non-reflective materials.<br><br>AND<br><br>**AO5.2** Facades of buildings and **structures** do not direct or reflect point light sources into the face of oncoming traffic on the **state-controlled road**.<br><br>AND<br><br>**AO5.3** External lighting of buildings and **structures** is not directed into the face of oncoming traffic on the **state-controlled road**.<br><br>AND<br><br>**AO5.4** External lighting of buildings and **structures** does not involve flashing or laser lights. | **Complies with PO5**<br>The BESS facility will be located approximately 50m from the Kingaroy Bakers Road. |

**Table G-2 Vehicular access, road layout and local roads (SDAP v3.1 State Code 1 – Table 1.2)**

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **Vehicular access to a state-controlled road or within 100 metres of a state-controlled road intersection** | | |
| **PO15** The location, design and operation of a **new or changed access** to a **state-controlled road** does not compromise the safety of users of the **state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO15**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |
| **PO16** The location, design and operation of a **new or changed access** does not adversely impact the **functional requirements** of the **state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO16**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |
| **PO17** The location, design and operation of a **new or changed access** is consistent with the **future intent** of the **state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO17**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |
| **PO18 New or changed access** is consistent with the access for the relevant **limited access road policy**:<br>1. **LAR 1** where direct access is prohibited; or<br>2. **LAR 2** where access may be permitted, subject to assessment. | No acceptable outcome is prescribed. | **Complies with PO18**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |
| **PO19 New or changed access** to a **local road** within 100 metres of an intersection with a **state-controlled road** does not compromise the safety of users of the **state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO19**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |
| **PO20 New or changed access** to a **local road** within 100 metres of an intersection with a **state-controlled road** does not adversely impact on the operating performance of the intersection. | No acceptable outcome is prescribed. | **Complies with PO20**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |

**Table G-3 Network impacts (SDAP v3.1 State Code 1 – Table 1.3)**

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **PO25** Development does not compromise the safety of users of the **state-controlled road** network. | No acceptable outcome is prescribed. | **Complies with PO25** Refer to traffic impact assessment (Section **7.0**). |
| **PO26** Development ensures **no net worsening** of the operating performance of the **state-controlled road** network. | No acceptable outcome is prescribed. | **Complies with PO26**. Due to the low volume of existing flows and projected development related flows, no adverse impact on the operating performance on state-controlled roads is anticipated (Section **5.8**). |
| **PO27** Traffic movements are not directed onto a **state-controlled road** where they can be accommodated on the **local road** network. | No acceptable outcome is prescribed. | **Complies with PO27**<br>No local road located near the development where traffic movements can be directed to. |
| **PO28** Development involving haulage exceeding 10,000 tonnes per year does not adversely impact the pavement of a **state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO28**<br>Given the short construction period with a total of only 664 heavy vehicle tips movements during construction, there will be no adverse impact on the pavement of state-controlled road. |
| **PO29** Development does not impede delivery of **planned upgrades** of **state-controlled roads**. | No acceptable outcome is prescribed. | **Complies with PO29** The development does not impact planned upgrades (Section **4.1**). |
| **PO30** Development does not impede delivery of **corridor improvements** located entirely within the **state-controlled road corridor**. | No acceptable outcome is prescribed. | **Complies with PO30** The development does not impact planned upgrades (Section **4.1**). |





**Table G-4 Development in a future state-controlled road environment (SDAP v3.1 State Code 1 – Table 1.6)**

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **PO52** Development does not impede delivery of a **future state-controlled road**. | **AO52.1** Development is not located in a **future state-controlled road**.<br><br>OR ALL OF THE FOLLOWING APPLY:<br><br>**AO52.2** Development does not involve filling and excavation of, or material changes to, a **future state-controlled road**.<br><br>AND<br><br>**AO52.3** The intensification of lots does not occur within a **future state-controlled road**.<br><br>AND<br><br>**AO52.4** Development does not result in the landlocking of parcels once a **future state-controlled road** is delivered. | **Complies with AO52**<br>Development is not located in a future state-controlled road. |
| **PO53** The location and design of **new or changed access** does not create a safety hazard for users of a **future state-controlled road**. | **AO53.1** Development does not include **new or changed access** to a **future state-controlled road**. | **Complies with AO53.1**<br>The development will obtain access via the existing access to the Kingaroy Solar Farm. No new or changed access is proposed. |
| **PO54** Filling, excavation, building foundations and **retaining structures** do not undermine, damage or cause subsidence of a **future state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO54**<br>Development is not located in a future state-controlled road. |

## State Development Assessment Provisions (SDAP) Code Assessment – State Code 6

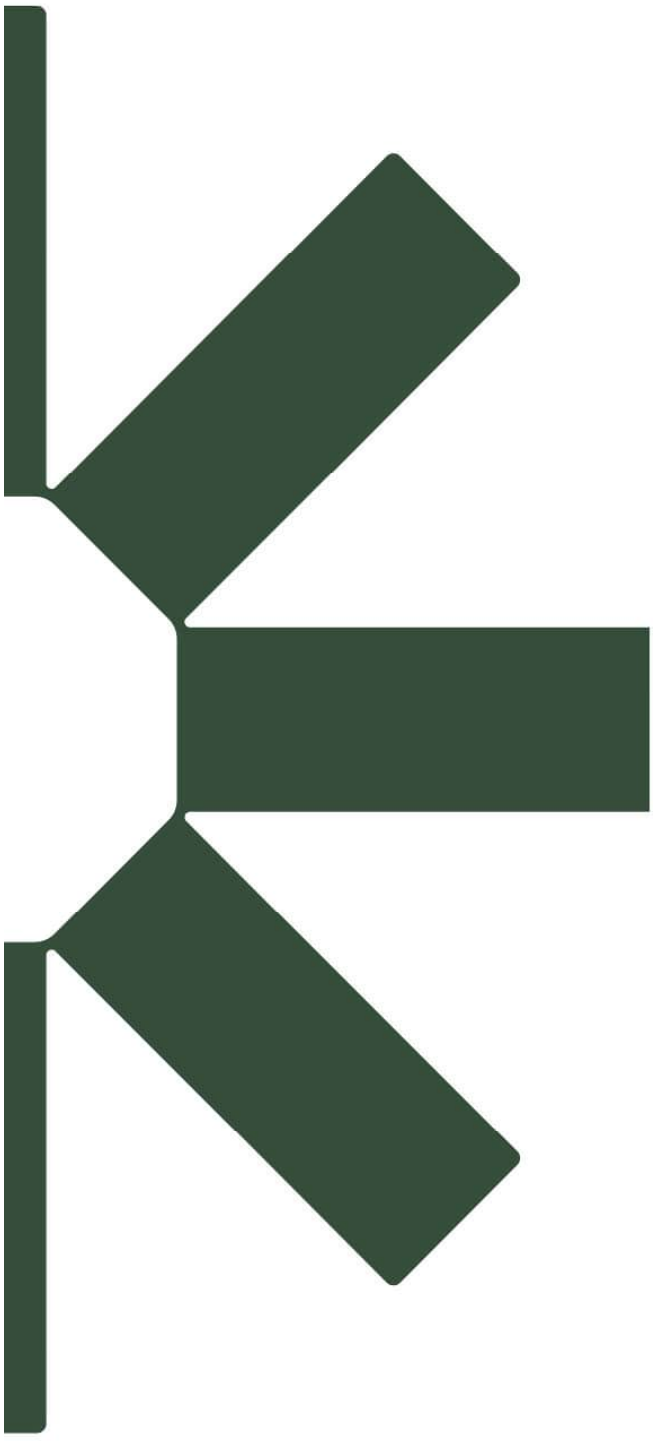
The subject development has been assessed against the traffic and transport requirements of the State Development Assessment Provisions (SDAP) v3.1 – State Code 6: Protection of State Transport Networks in **Table G-5** below, where:

- Table G-5 – Development in general (SDAP v3.1 State Code 6 – Table 6.2)

**Table G-5 Development in general (SDAP v3.1 State Code 6 – Table 6.2)**

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **Network impacts** | | |
| **PO1** Development does not compromise the safety of users of the **state-controlled road** network. | No acceptable outcome is prescribed. | **Complies with PO1**<br>Safety is not compromised (Section **7.0**). |
| **PO2** Development does not adversely impact the structural integrity or physical condition of a **state-controlled road** or road **transport infrastructure**. | No acceptable outcome is prescribed. | **Complies with PO2**<br>Given the short construction period with a total of only 664 heavy vehicle tips movements during construction, there will be no adverse impact on the structural integrity or physical condition of state-controlled road. |
| **PO3** Development ensures **no net worsening** of the operating performance the **state-controlled road** network. | No acceptable outcome is prescribed. | **Complies with PO3**<br>Due to the low volume of existing flows and projected development related flows, no adverse impact on the operating performance on state-controlled roads is anticipated (Section **5.8**). |
| **PO4** Traffic movements are not directed onto a **state-controlled road** where they can be accommodated on the **local road** network. | No acceptable outcome is prescribed. | **Complies with PO4**<br>No local road located near the development where traffic movements can be directed to. |
| **PO5** Development involving haulage exceeding 10,000 tonnes per year does not damage the pavement of a **state-controlled road**. | No acceptable outcome is prescribed. | **Complies with PO5**<br>Given the short construction period with a total of only 664 heavy vehicle tips movements during construction, there will be no adverse impact on the pavement of state-controlled road. |

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **Planned upgrades** | | |
| **PO21** Development does not impede delivery of **planned upgrades** of **state transport infrastructure**. | No acceptable outcome is prescribed. | **Complies with PO21**<br>Does not impact on planned upgrades (Section **4.1**). |



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# Preliminary Hazard Analysis

## Kingaroy Solar Farm

RPS AAP Consulting Pty Ltd
Document No. RCE-24331_Kingaroy_PHA_Final_10Mar25_Rev(1)
Date 10/03/2025

# Preliminary Hazard Analysis

Kingaroy Solar Farm

RPS AAP Consulting Pty Ltd

Prepared by

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Document No. RCE-24331_Kingaroy_PHA_Final_10Mar25_Rev(1)
Date 10/03/2025

## Quality Management

| Rev | Date | Remarks | Prepared By | Reviewed By |
|---|---|---|---|---|
| A | 23 October 2024 | Draft issued for comment | Zachary Cohn | Renton Parker |
| 0 | 29 October 2024 | Issued final | | |
| 1 | 10 March 2025 | Revised for changed BESS units | | |

# Executive Summary

## Background

RPS AAP Consulting Pty Ltd (RPS) has been engaged to provide environmental planning services for a Battery Energy Storage System (BESS) in Kingaroy, QLD. The 58.92 MVA/100MWh BESS will be connected to the existing Kingaroy Solar Farm. Pre-lodgment advice from the Council requires the following:

- *Risk Hazard Assessment – required. Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community.*

The potential for impacts on adjacent properties and communities is to be assessed in the form of a Preliminary Hazard Analysis (PHA). The PHA is prepared in accordance with the Hazardous Industry Planning Advisory Papers (HIPAP No. 6 and No. 4).

Riskcon Engineering Pty Ltd (Riskcon) has been engaged to assist with preparing the PHA for the Development Application (DA) submission.

## Conclusions

A hazard identification table was developed for the BESS at Kingaroy Solar Farm to identify potential hazards that may be present at the site as a result of operations or storage of materials. Based on the identified hazards, scenarios were postulated that may result in an incident with the potential for offsite impacts. Postulated scenarios were discussed qualitatively and any scenarios that would not impact offsite were eliminated from further assessment. A review of the incidents carried forward for further analysis indicates that there were no observed offsite impacts. Hence, based on the analysis presented in this report, the project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

## Recommendations

The following recommendations have been made as a result of the analysis:

- BESS must be tested in accordance with UL9540A.
- Testing to demonstrate clearances required to prevent propagation of fires between separated units.
- BESS to be installed in accordance with manufacturer and UL9540A report recommended clearances based on testing.
- BESS to be installed with fire protection systems specified by the manufacturer and UL9540A report.
- Before construction, detailed design to validate the system can be installed in the project area whilst meeting the recommended clearances.
- UL testing information shall be made available to the certifying authority. It is noted that a confidentiality agreement may be required.
- The vent covers of the BESS shall be constructed of non-combustible material.
- The vents shall not be located above battery packs within the BESS container.

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## Abbreviations

| Abbreviation | Description |
|---|---|
| AC | Alternating Current |
| ADG | Australian Dangerous Goods Code |
| AS | Australian Standard |
| BESS | Battery Energy Storage System |
| DC | Direct Current |
| DGs | Dangerous Goods |
| ELF | Extra Low Frequency |
| EMF | Electric and Magnetic Field |
| ERPG | Emergency Response Planning Guideline |
| HF | Hydrogen Fluoride |
| HIPAP | Hazardous Industry Planning Advisory Paper |
| HVAC | Heating Ventilation and Air Conditioning |
| ICNIRP | International Commission on Non-Ionizing Radiation Protection |
| IDLH | Immediately Dangerous to Life and Health |
| LFP | LiFePO4 (Lithium Iron Phosphate) |
| NMC | Nickel-Manganese-Cobalt |
| PHA | Preliminary Hazard Analysis |
| PO | Performance Outcome |
| PV | Photovoltaic |
| SEP | Surface Emissive Power |
| SOC | State of Charge |
| STEL | Short Term Exposure Limit |
| VBB | Victorian Big Battery |

# 1.0 Introduction

## 1.1 Background

RPS AAP Consulting Pty Ltd (RPS) has been engaged to provide environmental planning services for a Battery Energy Storage System (BESS) in Kingaroy, QLD. The 58.92 MVA/100MWh BESS will be connected to the existing Kingaroy Solar Farm. Pre-lodgment advice from the Council requires the following:

- *Risk Hazard Assessment – required. Mitigation of any hazard recommended to be addressed upfront to assist with impacts on adjacent properties and community.*

The potential for impacts on adjacent properties and communities is to be assessed in the form of a Preliminary Hazard Analysis (PHA). The PHA is prepared in accordance with the Hazardous Industry Planning Advisory Papers (HIPAP No. 6 and No. 4).

Riskcon Engineering Pty Ltd (Riskcon) has been engaged to assist with preparing the PHA for the Development Application (DA) submission.

## 1.2 Objectives

The key objectives of this PHA are to:

- Complete the PHA according to the Hazardous Industry Planning Advisory Paper (HIPAP) No. 6 – Hazard Analysis (Ref. [1]).
- Assess the PHA results using the criteria in HIPAP No. 4 – Risk Criteria for Land Use Planning (Ref. [2])
- Demonstrate compliance of the site with the relevant codes, standards and regulations (i.e. State Code 21 Ref. [3], WHS Regulation 2011 Ref. [4]).

## 1.3 Scope of Services

The scope of work is to complete a PHA study for the Kingaroy BESS located off Kingaroy Barkers Creek Rd, Kingaroy, Qld.

# 2.0 Methodology

## 2.1 Multi-Level Risk Assessment

In the absence of a comprehensive risk assessment methodology prescribed by QLD Department of State Development, Infrastructure, Local Government and Planning, the Multi-Level Risk Assessment approach (Ref. [5]) published by the NSW Department of Planning, Housing and Infrastructure, has been used as the basis for the study to determine the level of risk assessment required. The approach considered the development in context of its location, the quantity and type (i.e. hazardous nature) of Dangerous Goods (DGs) stored and used, and the project's technical and safety management control. The Multi-Level Risk Assessment Guidelines are intended to assist industry, consultants and the consent authorities to carry out and evaluate risk assessments at an appropriate level for the project being studied.

There are three levels of risk assessment set out in Multi-Level Risk Assessment which may be appropriate for a PHA, as detailed in **Table 2-1**.

**Table 2-1: Level of Assessment PHA**

| Level | Type of Analysis | Appropriate If: |
|---|---|---|
| 1 | Qualitative | No major off-site consequences and societal risk is negligible |
| 2 | Partially Quantitative | Off-site consequences but with low frequency of occurrence |
| 3 | Quantitative | Where 1 and 2 are exceeded |

The Multi-Level Risk Assessment approach is schematically presented in **Figure 2-1**.

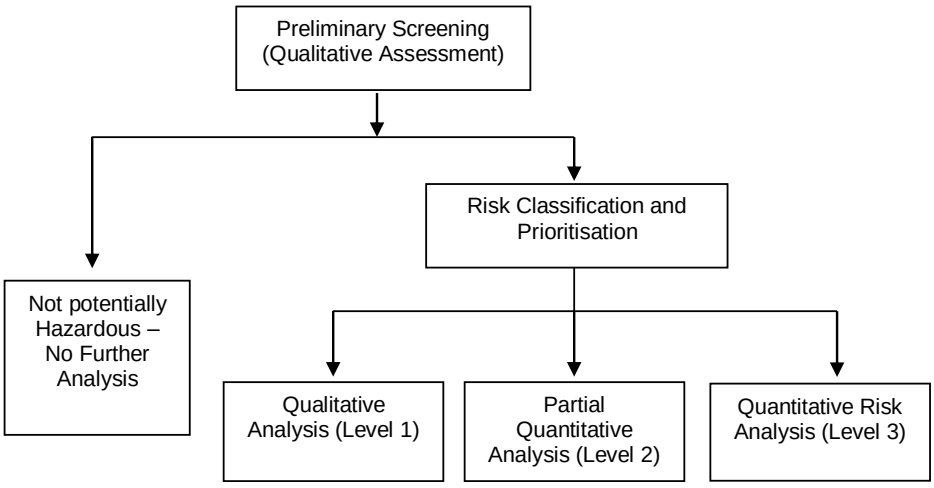



**Figure 2-1: The Multi-Level Risk Assessment Approach**

Based on the type of DGs to be used and handled at the proposed project, a **Level 1 Assessment** was selected for the Site. This approach provides a qualitative assessment of those DGs of lesser quantities and hazard, and a quantitative approach for the more hazardous materials to be used on-site.

## 2.2 Risk Assessment Study Approach

The methodology used for the PHA is as follows:

**Hazard Analysis** – A detailed hazard identification was conducted for the site facilities and operations. Where an incident was identified to have a potential off-site impact, it was included in the recorded hazard identification word diagram (**Appendix A**). The hazard identification word diagram lists incident type, causes, consequences and safeguards. This was performed using the word diagram format recommended in HIPAP No. 6 (Ref. [1]).

Each postulated hazardous incident was assessed qualitatively in light of proposed safeguards (technical and management controls). Where a potential offsite impact was identified, the incident was carried into the main report for further analysis. Where the qualitative review in the main report determined that the safeguards were adequate to control the hazard, or that the consequence would obviously have no offsite impact, no further analysis was performed. **Section 3.1** of this report provides details of values used to assist in selecting incidents required to be carried forward for further analysis.

**Consequence Analysis** – For those incidents qualitatively identified in the hazard analysis to have a potential offsite impact, a detailed consequence analysis was conducted. The analysis modelled the various postulated hazardous incidents and determined impact distances from the incident source. The results were compared to the consequence criteria listed in HIPAP No. 4 (Ref. [2]). The criteria selected for screening incidents is discussed in **Section 3.1**.

Where an incident was identified to result in an offsite impact, it was carried forward for frequency analysis. Where an incident was identified to not have an offsite impact, and a simple solution was evident (i.e. move the proposed equipment further away from the boundary), the solution was recommended, and no further analysis was performed.

**Frequency Analysis** – In the event a simple solution for managing consequence impacts was not evident, each incident identified to have potential offsite impact was subjected to a frequency analysis. The analysis considered the initiating event and probability of failure of the safeguards (both hardware and software). The results of the frequency analysis were then carried forward to the risk assessment and reduction stage for combination with the consequence analysis results.

**Risk Assessment and Reduction** – Where incidents were identified to impact offsite and where a consequence and frequency analysis was conducted, the consequence and frequency analysis for each incident were combined to determine the risk and then compared to the risk criteria published in HIPAP No. 4 (Ref. [2]). Where the criteria were exceeded, a review of the major risk contributors was performed, and the risks reassessed incorporating the recommended risk reduction measures. Recommendations were then made regarding risk reduction measures.

**Reporting** – On completion of the study, a draft report was developed for review and comment. A final report was then developed, incorporating the comments received for submission to the regulatory authority.

# 3.0 Site Description

## 3.1 Site Location

The site is located on 397 Kingarory Barkers Creek Road approximately 3 km east of Kingaroy Qld 4610. The closest sensitive receptors in the surrounding area are approximately 100 m from the BESS units.

**Figure 3-1** shows the regional location of the site. **Figure 3-2** and **Figure 3-3** respectively show the site layout of the full development and layout for the BESS. **Figure 3-4** shows the sensitive receptors relative to the site.




**Figure 3-1: Site Location**



RPS AAP Consulting Pty Ltd
Document No. RCE-24331_Kingaroy_PHA_Final_10Mar25_Rev(1)
Date 10/03/2025

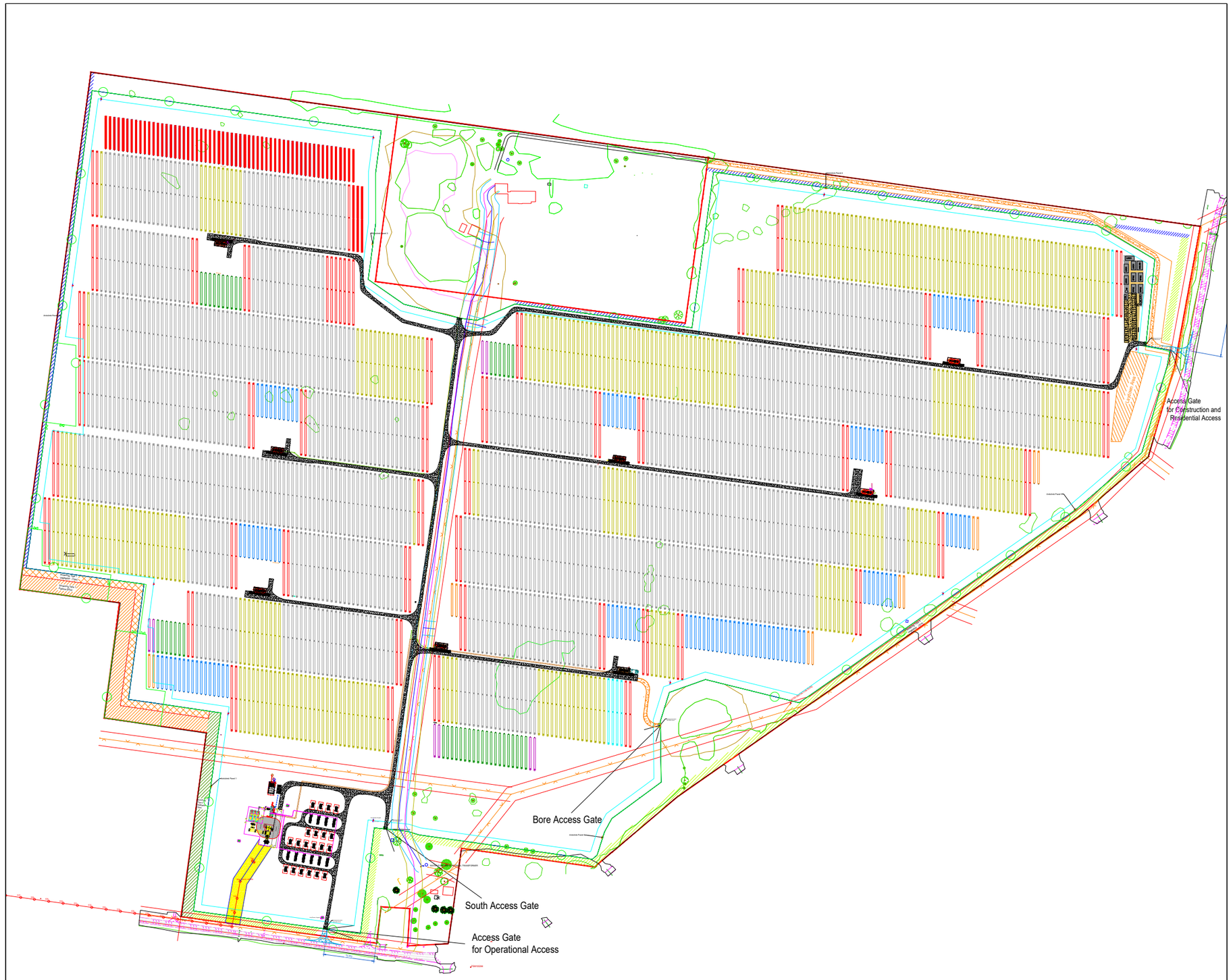



Figure 3-2: Site Layout

## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | |
|---|---|
| Battery Type | JINKO JKE-5015K-2H-LAA |
| **Power Convertion Group 1 - 10: MV Twin Skid Ingeteam** | |
| Inverters | 2 x INGECON SUN STORAGE 3930TL HV C630 |
| PCS | 1 x INGECON 7860 FSK HV C Series |
| Battery Capacity | 5.015 MWh |
| Capacity per PCS | 2 containers per PCS x 5.015 = 10.03 MWh |
| **TOTALS** | |
| Battery Containers | 20 |
| Total Capacity | 20 x 5.015 MWh = 100.3 MWh |
| ACmax @30$^{o}$C | 58.92 MVA |

| Voltage Level | Frequency | PF |
|---|---|---|
| 22 kV | 50 Hz | |

Metlen Energy & Metals

**MYTILINEOS RSD TECHNICAL & PROCUREMENT DPT**

Tower Four, Level 17,
727 Collins St,
Docklands
VIC 3008, Australia

| Version | Date | Revised By | Reviewed By | Approved By | Description and Notes |
|---|---|---|---|---|---|
| r01 | 21.11.2024 | I.AVG | T.KAR | M.VAS | Battery Container changed to Jinko |
| r00 | 14.05.2024 | S.KAN | T.KAR | M.VAS | BESS Preliminary Layout |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Project Name:
Kingaroy BESS,
South Burnett, Australia

PRELIMINARY

Drawing Name:
BESS Overall Site Plan

Drawing Revision
r01

Scale:
1:2500 @A1

Drawing Number:
AUS-KNG(BESS)-006-11

Date:
28.11.2024

Sheet No:
2/2

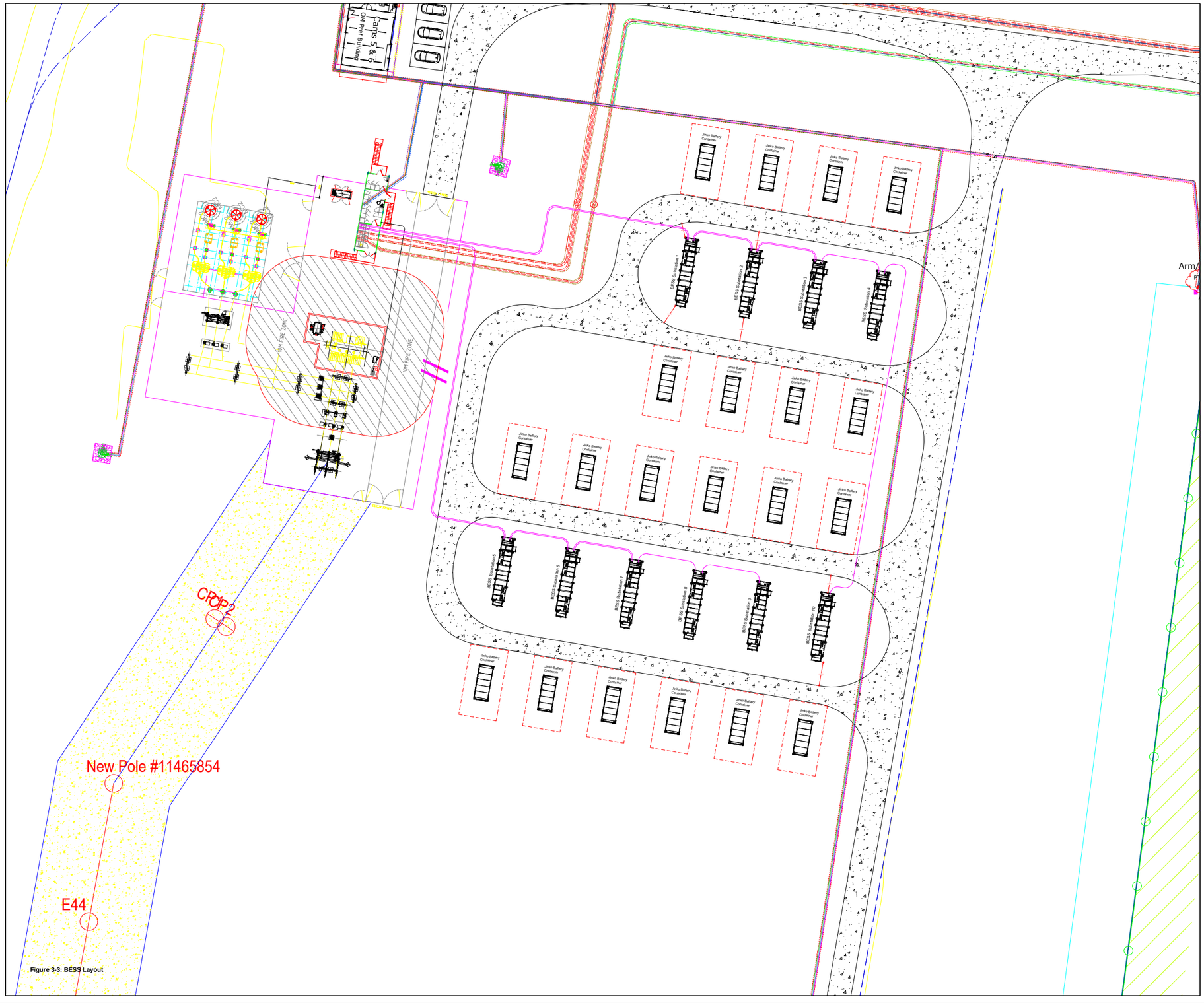



Figure 3-3: BESS Layout

## BESS General Legend

| | |
|---|---|
| | Site Boundary |
| | Fence |
| | Construction line 10m from fence |
| | Access Road Internal |
| | Access Road External |
| | Access Road Residential |
| | OHL |
| | 10m OHL Protection Easement |
| | OHL Poles |
| | Entrance Door |
| | Main Substation |
| | BESS Container |
| | BESS Substation |
| | Cable MV AL/XLPE 3x1x500mm$^2$ 12.7/22 (24kV) |

## BESS Configuration

| | | |
|---|---|---|
| Battery Type | JINKO JKE-5015K-2H-LAA | |
| **Power Convertion Group 1 - 10: MV Twin Skid Ingeteam** | | |
| Inverters | 2 x INGECON SUN STORAGE 3930TL HV C630 | |
| PCS | 1 x INGECON 7860 FSK HV C Series | |
| Battery Capacity | 5.015 MWh | |
| Capacity per PCS | 2 containers per PCS x 5.015 = 10.03 MWh | |
| **TOTALS** | | |
| Battery Containers | 20 | |
| Total Capacity | 20 x 5.015 MWh = 100.3 MWh | |
| ACmax @30$^0$C | 58.92 MVA | |
| Voltage Level | Frequency | PF |
| 22 kV | 50 Hz | |

Metlen Energy & Metals

**MYTILINEOS RSD TECHNICAL & PROCUREMENT DPT**

Tower Four, Level 17,
727 Collins St,
Docklands
VIC 3008, Australia

| Version | Date | Revised By | Reviewed By | Approved By | Description and Notes |
|---|---|---|---|---|---|
| r01 | 21.11.2024 | I.AVG | T.KAR | M.VAS | Battery Container changed to Jinko |
| r00 | 14.05.2024 | S.KAN | T.KAR | M.VAS | BESS Preliminary Layout |

Project Name:
Kingaroy BESS,
South Burnett, Australia

PRELIMINARY

Drawing Name:
BESS Layout

Scale:
1:300 @A1

Drawing Number:
AUS-KNG(BESS)-006-11

Drawing Revision
r01

Date:
28.11.2024

Sheet No:
1/2




**Figure 3-4: Sensitive Receptors**

## 3.2 General Description

The project features an existing solar farm and proposed associated BESS comprising 20 containerised battery storage units each with an exclusion zone of at least 2 m with actual separations greatly exceeding this. Each unit has an energy capacity of 5.015 MWh resulting in a gross capacity for the BESS of approximately 100 MWh. Each unit employs lithium iron phosphate (LFP) battery modules and is equipped with liquid cooling and a Battery Management System for operational control. Each container measures approx. 6.0 by 2.4 by 2.9 m, with a total weight of approximately 42,000 kilograms and an IP55 rating. In addition, there are 10 substations yielding a capacity of 58.92 AC megavolt-amperes (MVA).

The containers conform to IEC 62619, IEC 62477-1, IEC 61000, UL 1973, UL 9540A, NFPA 855, and UN 38.3 standards in addition to others (**Appendix B**) which govern the safety and performance of the included batteries. This includes the installation of an active fire protection system using both gas and water within each container (**Appendix B**).

## 3.3 Quantities of Dangerous Goods

The classes and quantities of DGs are provided in **Table 3-1**. The type of transformer oil is not yet confirmed; hence it is conservatively assumed as a C1 combustible liquid for the purposes of this PHA.

**Table 3-1: Maximum Quantities of Dangerous Goods Stored**

| Area | Class | Description | Quantity |
|---|---|---|---|
| BESS | 9 | Lithium Batteries | 804 t |
| Transformer oil | C1 | Combustible liquid | 30 kL |

# 4.0 Hazard Identification

## 4.1 Introduction

A hazard identification table has been developed and is presented at **Appendix A**. This table has been developed following the recommended approach in Hazardous Industry Planning Advisory Paper No. 6, Hazard Analysis Guidelines (Ref. [1]). The Hazard Identification Table provides a summary of the potential hazards, consequences and safeguards at the site. The table has been used to identify the hazards for further assessment in this section of the study. Each hazard is identified in detail and no hazards have been eliminated from assessment by qualitative risk assessment prior to detailed hazard assessment in this section of the study.

In order to determine acceptable impact criteria for incidents that would not be considered for further analysis, due to limited impact offsite, the following approach has been applied:

- *Fire Impacts* - It is noted in HIPAP No. 4 (Ref. [2]) that a criterion is provided for the maximum permissible heat radiation at the site boundary (4.7 kW/m$^2$) above which the risk of injury may occur and therefore the risk must be assessed. Hence, to assist in screening those incidents that do not pose a significant risk, for this study, incidents that result in a heat radiation less that at 4.7 kW/m$^2$, at the site boundary, are screened from further assessment.

  Those incidents exceeding 4.7 kW/m$^2$ at the site boundary are carried forward for further assessment (i.e. frequency and risk). This is a conservative approach, as HIPAP No. 4 (Ref. [2]) indicates that values of heat radiation of 4.7 kW/m$^2$ should not exceed 50 chances per million per year at sensitive land uses (e.g. residential).

- *Explosion* - It is noted in HIPAP No. 4 (Ref. [2]) that a criterion is provided for the maximum permissible explosion over pressure at the site boundary (7 kPa) above which the risk of injury may occur and therefore the risk must be assessed. Hence, to assist in screening those incidents that do not pose a significant risk, for this study, incidents that result in an explosion overpressure less than 7 kPa, at the site boundary, are screened from further assessment. Those incidents exceeding 7 kPa, at the site boundary, are carried forward for further assessment (i.e. frequency and risk).

- *Toxicity* – Toxic by-products of combustion may be generated by a BESS fire; hence, toxicity has been assessed with criteria based upon the Emergency Response Planning Guidelines (ERPG).

- *Property Damage and Accident Propagation* - It is noted in HIPAP No. 4 (Ref. [2]) that a criterion is provided for the maximum permissible heat radiation/explosion overpressure at the site boundary (23 kW/m$^2$ / 14 kPa) above which the risk of property damage and accident propagation to neighbouring sites must be assessed. Hence, to assist in screening those incidents that do not pose a significant risk to incident propagation, for this study, incidents that result in a heat radiation heat radiation less than 23 kW/m$^2$ and explosion over pressure less than 14 kPa, at the site boundary, are screened from further assessment. Those incidents exceeding 23 kW/m$^2$ at the site boundary are carried forward for further assessment with respect to incident propagation (i.e. frequency and risk).

- *Societal Risk* – HIPAP No. 4 (Ref. [2]) discusses the application of societal risk to populations surrounding the Project. It is noted that HIPAP No. 4 (Ref. [2]) indicates that where a development proposal involves a significant intensification of population, in the vicinity of such a project, the change in societal risk needs to be taken into account. In the case of the project,

there is currently no significant intensification of population around the proposed site; hence, societal risk has not been considered in this assessment.

## 4.2 Properties of Dangerous Goods

The type of DGs and quantities stored and used at the site has been described in **Section 3**. **Table 4-1** provides a description of the DGs to be stored and handled at the site, including the Class and the hazardous material properties of the DG Class.

**Table 4-1: Properties* of the Dangerous Goods and Materials Stored at the Site**

| Class | Hazardous Properties |
|---|---|
| 9 – Miscellaneous DGs | Class 9 substances and articles (miscellaneous dangerous substances and articles) are substances and articles which, during transport present a danger not covered by other classes. Releases to the environment may cause damage to sensitive receptors within the environment. It is noted that the Class 9s stored within this project are lithium-ion batteries which may undergo thermal runaway (i.e. escalating reaction resulting in heat which ultimately leads to failure of the battery and a fire). |
| Combustible Liquids | Combustible liquids are typically long chain hydrocarbons with flash points exceeding 60.5ºC. Combustible liquids are difficult to ignite as the temperature of the liquid must be heated to above the flash point such that vapours are generated which can then ignite. This process requires either sustained heating or a high-energy ignition source. |

* The Australian Code for the Transport of Dangerous Goods by Road and Rail (Ref. [6]

## 4.3 Hazard Identification

Based on the hazard identification table presented in **Appendix A**, the following hazardous scenarios have been developed:

- Li-ion battery fault, thermal runaway and fire.
- Victorian Big Battery fire review.
- Li-ion battery fire and toxic gas dispersion.
- Electrical equipment failure and fire.
- Transformer internal arcing, oil spill, ignition and bund fire.
- Transformer electrical surge protection failure and explosion
- Electromagnetic field impacts.

Each identified scenario is discussed in further detail in the following sections.

## 4.4 Li-Ion Battery Fault, Thermal Runaway and Fire

Lithium ion (Li-ion) batteries are composed of a metallic anode and cathode which allows for electrons released from the anode to travel to the cathode where positively charged ions in the solute migrate to the cathode and are reduced. The flow of electrons provides the source of energy which is discharged from a battery and used for work. In a Li-ion battery, the lithium metal composites (a composite of lithium with other metals such as cobalt, manganese, nickel, or any combination of these metals) oxidises (loses an electron) becoming a positively charged ion in solution which migrates through the battery separator to the cathode. At the same time, the lost electron travels through the circuit to the cathode. The lithium ions in solution then recombine with

the electron at the cathode forming lithium metal within the cathodic metal composite. This process is shown in **Figure 4-1**.

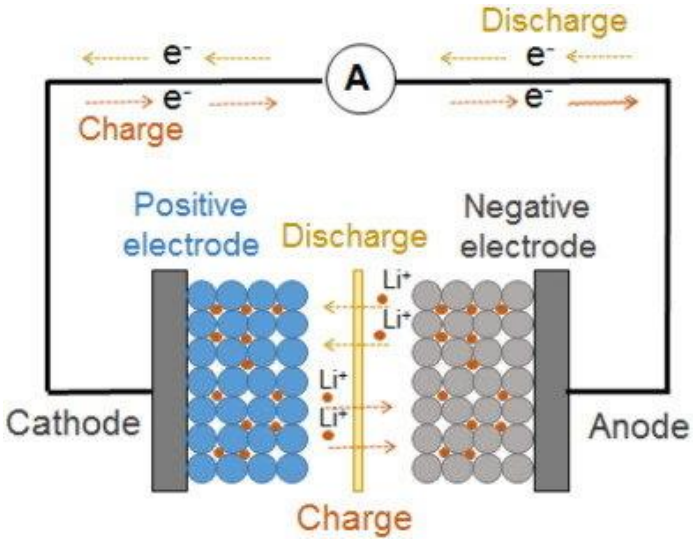



**Figure 4-1: Cathode and Anode of a Battery (Source Research Gate)**

Initial lithium batteries were designed around lithium metal (i.e. no composite structure) due to the high energy density yielded by the metal. However, when overcharging a battery, lithium ions can begin to plate on the anode in the form of lithium dendrites. Eventually, the dendrites pierce the separator within the battery resulting in a short of the battery which could result in heat, fire, or explosion of the battery. The technology evolved to move away from lithium metal to lithium ions (held within composite materials) which reduced the incidence of lithium dendrites forming resulting in an overall safer battery.

Despite the improvement in battery technology, there are several degradation mechanisms that are still present within the battery which can result in thermal runaway. These include:

- Chemical reduction of the electrolyte at the anode
- Thermal decomposition of the electrolyte
- Chemical reduction of the electrolyte at the cathode
- Thermal decomposition of the cathode and the anode
- Internal short circuit by charge effects

These effects arise primarily as a result of high discharge, overcharging, or water ingress into the battery which results in a host of biproducts being formed within the battery during charge and discharge cycles.

As a result, Li-ion batteries are equipped with several safety features to prevent the batteries from charging or discharging at voltages which result in battery degradation, leading to shorting of the battery and thermal runaway. Safety features generally include:

- Shut-down separator (for overheating)
- Tear-away tab (for internal pressure relief)
- Vent (pressure relief in case of severe outgassing)

- Thermal interrupt (overcurrent/overcharging/environmental exposure)

These features are designed to prevent overcharging or excessive discharge, pressurisation arising from heat generated at the anode or from battery contamination. Protection techniques for Li-ion batteries are standard; hence, the potential for thermal runaway to occur in normal operation is very low with the only exceptions being due to manufacturing faults or battery damage (i.e. battery cell is ruptured as this can short circuit the battery resulting in thermal runaway).

In terms of physical damage, the batteries are contained within in modules which are located within a fenced area; therefore, there is a low potential for damage to occur to the batteries which may initiate an incident.

A review of the batteries proposed to be used as part of this project indicates the battery chemistry is anticipated to be lithium iron phosphate (LiFePO4, or simply LFP) which are considered to be one of the safest battery chemistries within the industry. When exposed to external heat the thermal rise of typical lithium-ion battery chemistries is 200-400 $^{o}$C/min resulting thermal run away and fire which can then propagate to adjacent batteries escalating the incident to a full container fire. For LFP batteries, the thermal rise of the batteries at peak is 1.5$^{o}$C/min which results in a gradual temperature rise and does not result in fire and thus avoiding incident propagation to other batteries. The thermal rise of various battery chemistries is provided in **Figure 4-2** with a zoomed in temperature rise for LFP provided in the top right of **Figure 4-2**. The stability of the batteries is due to the cathode which does not release oxygen therefore preventing violent redox reactions resulting in rapid temperature rise as the oxygen oxides the electrolyte.

Additional testing for shock and damage to batteries (i.e. nail puncture test) has been shown that LFP batteries when punctured through membranes which typically results in a shorting of the battery does not result in ignition of the battery demonstrating that the battery chemistry is protected against shock damage.

In the event that LFP chemistries do ignite by artificial means, the combustion by products release carbon dioxide which reduces the oxygen concentration within a confined space reducing the combustion rate. Finally, the containers are fitted with fire suppression systems which will activate to suppress and control a fire preventing escalation to other battery units (**Appendix B**).

NMC batteries (nickel-manganese-cobalt) are also considered viable due to their high energy density relative to LFP batteries, however operation of NMC does result in oxygen release, potentially increasing fire risks. For this reason, LFP batteries are advised as the industry standard for safety in lithium-ion battery technology.

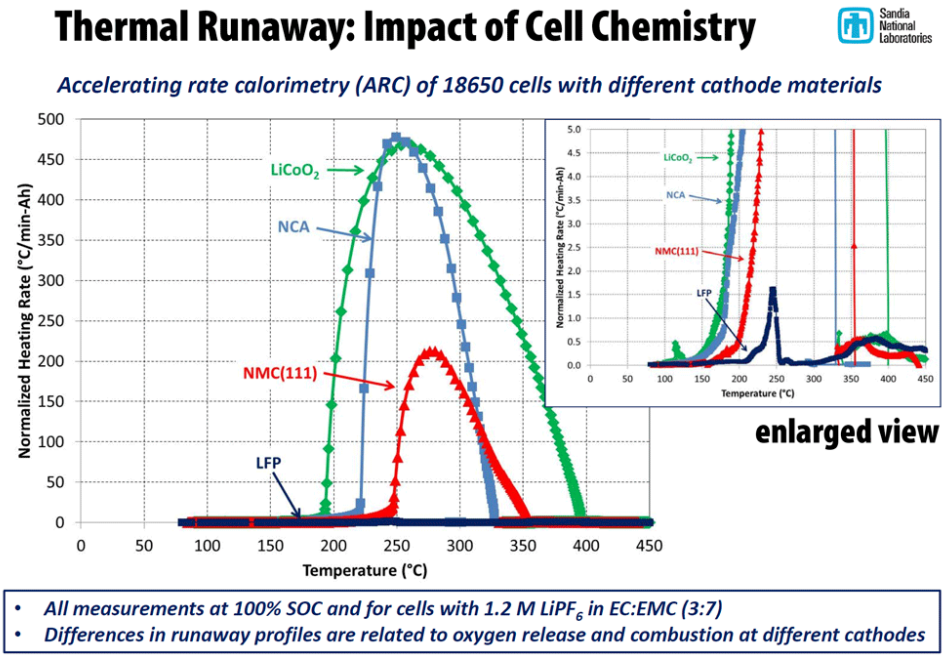



**Figure 4-2: Temperature Rise of Lithium-Ion Battery Chemistries (Ref. [7]).**

The preliminary battery product considered for the purposes of a preliminary hazard analysis for the project is a BESS with LFP technology. A UL9540A report (test standard report with a systematic evaluation of thermal runaway and propagation in energy storage system at cell, module, unit, and installation levels) may have been completed for this product and is unable to be shared due to privacy reasons. At install, the units will have been tested and have UL9540A test data for fire development and propagation.

Similarly, based on data shown from UL9540A reports for similar systems, the results demonstrate that when thermal runaway is triggered in one cell in a BESS container, the heat generated would neither be transferred to all cells within one battery module, nor from the test module to adjacent ones. This is attributed to the nature of LFP technology as well as the sheer mass of the battery module (heavier objects have higher thermal capacity).

Although the LFP technology does not cause fire, there can be circumstances where battery modules catch fire due to leaking coolant or electric faults. In those cases, fire will be constrained by the stainless-steel enclosure. Similar systems show that generally the container wall remains intact after sustaining heating in a furnace to over 900°C.

Furthermore, each container should also have multiple built-in fire protection devices that work collaboratively, including smoke and thermal sensors, combustible gas detector, pressure relief system, and aerosol E-Stop buttons. For the Energy Vault batteries, safety systems include fire and smoke detectors, explosive gas detectors, active ventilation, dry piping for water suppression and 2-hour firewall. Therefore, a container is expected to automatically detect an internal fire in the first instance.

In conclusion, the LFP technology does not cause fire during thermal runaway. Should fire be developed within one BESS container it would not transfer to nearby containers due to the fire safety design features; hence, this incident has not been carried forward for further analysis.

Notwithstanding, based on conversations with and review by NSW Department of Planning and Environment (DPE) on other BESS projects, the following recommendations have been made:

- BESS must be tested in accordance with UL9540A.
- Testing to demonstrate clearances required to prevent propagation of fires between separated units.
- BESS to be installed in accordance with manufacturer and UL9540A report recommended clearances based on testing.
- BESS to be installed with fire protection systems specified by the manufacturer and UL9540A report.
- Before construction, detailed design to validate the system can be installed in the project area whilst meeting the recommended clearances.
- UL testing information shall be made available to the certifying authority. It is noted that a confidentiality agreement may be required.

## 4.5 Victorian Big Battery Fire Review

Notwithstanding the findings of **Section 4.4**, it is necessary to review recent large scale BESS fires to determine whether similar incidents could occur with the present project.

The present project has thoroughly considered the separation distance considering fire safety, and operation and maintenance. The fire safety assessment is essentially around heat transfer which has been discussed in detail in **Section 4.4**.

The Victorian Big Battery (VBB) experienced a fire in July 2021 which also has a back-to-back layout. According to the independent investigation report on its fire incidence, the back-to-back layout was not the cause for propagation. The main reason for fire propagation was strong wind blowing flames from one Megapack into the unprotected vent atop of an adjacent Megapack which resulted in the ignition of the plastic fan which was able to impact the battery modules directly beneath the fan.

Lessons learnt from the VBB incident results in fire safety precautions on the design of the present project. The vent atop the containers shall be made of metal instead of plastic and covered by a metallic mesh shield. Furthermore, the placement of the fans shall be such that batteries or flammable materials shall not be located directly beneath ventilation openings. To ensure the above are captured the following recommendations have been made:

- The vent covers of the BESS shall be constructed of non-combustible material.
- The vents shall not be located above battery packs within the BESS container or shall otherwise be prevented from impacting the battery packs in the event of a fire.

Based upon the designs incorporated with the container based upon the VBB fire, the available area assessment and the separation distance assessment, it is considered that the propagation between two units is considered unlikely; hence, this incident has not been carried forward for further analysis.

## 4.6 Li-ion Battery Fire and Toxic Gas Dispersion

If a BESS failure occurs resulting in a fire, toxic biproducts of combustion may form. A literature review was conducted on lithium-ion battery fires to identify the toxic gases which may be

generated in the event of a fire. The review identified the following gases or classes of gases can form:

- Carbon dioxide;
- Carbon monoxide; and
- Fluorine gases.

Each of these have been discussed in further detail in the following subsections.

### 4.6.1 Carbon Dioxide

Carbon dioxide is a colourless, odourless, dense gas which is naturally forming and is present in the atmosphere at concentrations around 415 ppm (0.0415%). At low concentrations carbon dioxide is physiologically impotent and at low concentrations does not appear to have any toxicological effects. However, as the concentration grows it increases the respiration rate with short term Exposure Limit (STEL) occurring at 30,000 ppm (3%), above 50,000 ppm (5%) a strong respiration effect is observed along with dizziness, confusion, headaches, and shortness of breath. Concentrations in excess of 100,000 ppm (10%) may result in coma or death.

Carbon dioxide is a by-product of combustion where hydrocarbon or carbon-based materials are involved. A typical combustion reaction producing carbon from a hydrocarbon has been provided in **Equation 4-1**. This reaction proceeds when there is an excess of oxygen to the fuel being consumed and is known as complete combustion as it is the most efficient reaction pathway.

$$C_3H_8(g) + 5O_2(g) \rightarrow 3Co_2(g) + 4H_2O(g)$$ **Equation 4-1**

The lithium-ion batteries are predominantly composed of metal structures. However, during a fire event ancillary equipment and materials within the batteries will be involved in the fire including wiring, plastics, anodes, etc. which will liberate carbon dioxide. However, a review of the toxicological impacts indicates high concentrations would be required to result in injury or fatality. Based upon a review of the sensitive areas, and the similar BESS fires (i.e. Victoria BESS fire), it is not considered that the formation of carbon dioxide in a fire would be sufficient to result in downwind impacts sufficient to cause injury or fatality. In other words, there would be insufficient production of carbon dioxide to generate a plume of sufficient concentration to displace the required oxygen for a significant downwind consequence to occur. Therefore, this incident has not been carried forward for further analysis.

### 4.6.2 Carbon Monoxide

Carbon monoxide is an odourless, colourless gas which is slightly denser than air and occurs naturally in the atmosphere at concentrations around 80 ppb. Carbon monoxide is a toxic gas as it irreversibly binds with haemoglobin which prevents these molecules from carrying out the function of oxygen / carbon dioxide exchange. The loss of 50% of the haemoglobin may result in seizures, coma or death which can occur at concentration exposures of approximately 600 ppm (0.06%).

Carbon monoxide is by-product of combustion if there is insufficient oxygen to enable complete combustion. The reaction pathway for the formation of carbon monoxide is provided in **Equation 4-2**.

$$2C_3H_8(g) + 7O_2(g) \rightarrow 6CO(g) + 8H_2O(g)$$ **Equation 4-2**

As noted, in **Section 4.6.1** there is the potential for a fire to occur with the BESS units which could form carbon monoxide if there is insufficient oxygen to sustain complete combustion. However, it is noted that the combustible load within the BESS which could result in the formation of carbon monoxide is relatively low compared to the available oxygen in the surrounding atmosphere. Therefore, it is considered that the formation of carbon monoxide at levels which would result in a substantial downwind impact are not considered credible and subsequent analysis of, this incident is not required.

### 4.6.3 Fluoride Gases

The electrolyte used in Li-ion batteries typically is lithium hexafluorophosphate ($LiPF_6$) or other li-salts containing fluorine. In the event of a thermal runaway, the electrolyte will expand and be vented from the battery. In the event of a fire, the vented gas and other components such as the polyvinylidene fluoride binders may form gases such as hydrogen fluoride (HF), phosphorous pentafluoride ($PF_5$) and phosphoryl fluoride ($POF_3$) (Ref. [8]).

The decomposition of $LiPF_6$ can be promoted by the presence of water / humidity according to reactions **Equation 4-3** to **Equation 4-5**.

$$LiPF_6 \rightarrow LiF + PF_5$$ **Equation 4-3**

$$PF_5 + H_2O \rightarrow POF_3 + 2HF$$ **Equation 4-4**

$$LiPF_6 + H_2O \rightarrow LiF + POF_3 + 2HF$$ **Equation 4-5**

Of the fluorine gases formed, $PF_5$ is a short-lived gas while $POF_3$ is a reactive intermediate. Thermal destruction of a several battery chemistry, configurations and State of Charge (SOC) indicated the vast majority of these did not produce observable $POF_3$ with the only observance occurring in a specific battery chemistry at 0% SOC (Ref. [8]). Therefore, the main fluorine gas of concern in a Li-ion battery fire is HF.

HF gas is hydroscopic readily dissolving into water vapour / humidity or moisture in airways forming hydrofluoric acid. Hydrofluoric acid is a weak acid although is highly corrosive and may result in chemical burns. In addition, it is calcium scavenging. Hence, it will readily bind with calcium in cells and tissues disrupting the nerve signalling. The immediately dangerous to life or Health (IDLH) for HF is 30 ppm and the 10-minute lethal concentration is 170 ppm.

For a toxic gas dispersion, a battery container fire is necessary as the initiating event. As discussed in **Section 4.4** the potential for a fire to occur is considered negligible due to the highly stable and safe battery chemistries used. Therefore, a toxic gas dispersion impacting sensitive receptors is not deemed a credible scenario and this incident has not been carried forward for further analysis.

## 4.7 Electrical Equipment Failure and Fire

Electrical equipment is located within the switch room which may fail resulting in overheating, arcing, etc. which could initiate a fire. In the event of a fire, it may begin to propagate to adjacent combustible materials (i.e. wiring). It is noted that electrical equipment fires typically start by smouldering before flame ignition occurs resulting in a slow fire development.

The type of equipment used within the Project is ubiquitous throughout the world and across industry segments and is therefore not a unique fire scenario. Based upon fire development within switch rooms the fire would be considered to be relatively slow in growth and would be unlikely to

result in substantial impacts in terms of offsite impact or incident propagation. Therefore, this incident has not been carried forward for further analysis.

## 4.8 Transformer Internal Arcing, Oil Spill, Ignition and Bund Fire

Transformers contain oil which is used to insulate the transformers during operation. If arcing occurs within the transformer (e.g. due to a low oil level), the high energy passing through the coolant vaporises the oil into light hydrocarbons (methane, ethane, acetylene, etc.) resulting in rapid pressurisation within the reservoir.

Notwithstanding the protection systems, if the pressure rise exceeds the structural integrity of the reservoir, and the installed pressure relief devices, the reservoir can rupture allowing the release of oil into the bund. The rupture also allows oxygen to enter the reservoir. The temperature of the gases is anticipated to be above the auto ignition point, but this does not occur until oxygen is present. When oxygen enters the reservoir, the gases auto ignite which generates sufficient heat to ignite the oil in the bund. It is noted that no concrete bunds are currently proposed, therefore the following recommendation is made:

- Confirm that all transformers are bunded to contain oil releases. Transformers may be self-bunded on a skid, otherwise they will require a dedicated concrete bund.

Notwithstanding this, transformers are ubiquitous units with a low potential for failure and every transformer is to be self-bunded on a skid or have a concrete bund, limiting the spread of an oil pool fire. Additionally, the separation distance to the site boundary and other adjacent units would be unlikely to result in incident propagation and offsite impacts. Nevertheless, it has been decided to quantitatively determine the risk of such a fire, hence this incident has been carried forward for further analysis.

## 4.9 Transformer Electrical Surge Protection Failure and Explosion

Transformers generate large amounts of heat as a result of the high electrical currents that pass through them; hence, as described in **Section 4.8**, oil is used as an insulating material within the transformers to protect the mechanical components. However, if the transformer gets an extreme surge of energy, such as that which could occur due to a lightning strike, and the electrical surge protection measures fail, the oil may start to decompose and vapourise, resulting in flammable gas bubbles including hydrogen and methane (Ref. [9]) at temperatures above the autoignition of the gases.

The formation of gases will increase the pressure within the transformer which can result in the transformer structure rupturing which allows the ingress of oxygen. As the oxygen enters, the concentration of flammable gases falls within the explosive limits which are above their autoignition temperatures which ignite resulting in increased formation of hot gaseous products resulting in an explosion. The explosion may generate significant overpressure, sparks and fire and would result in a whole transformer fire, as discussed in **Section 4.8**.

In order to protect against overheating and explosions, transformers generally have surge protection devices which shunt electrical surges safely to ground. However, this surge detection and protection devices are not universally installed nor do they protect against all events such as in the case of a major lightning strike or significant oil deterioration, leakage of water into the transformer, and physical damage such as a fallen tree (Ref. [10]). Therefore, while transformers are ubiquitous units with a low potential for failure, there is the potential for an explosion to occur

which may result in offsite impacts. Hence, this incident has been carried forward for further analysis.

## 4.10 Electromagnetic Field Impacts

### 4.10.1 Introduction

Electric and Magnetic Fields (EMFs) are associated with a wide range of sources and occur both naturally as well as man-made. Naturally occurring EMFs, occurring during lightning storms, are generated from Earth's magnetic field. Man-made EMFs are present wherever there is electricity; hence, EMFs are present in almost all built environments where electricity is used.

Extremely low frequency (ELF) electric and magnetic fields (EMF) occupy the lower part of the electromagnetic spectrum in the frequency range 0-3,000 Hz which is the current will change direction 0-3,000 times a second. ELF EMF result from electrically charged particles. Artificial sources are the dominant sources of ELF EMF and are usually associated with the generation, distribution and use of electricity at the frequency of 50 Hz in Australia. The electric field is produced by the voltage whereas the magnetic field is produced by the current.

BESS create EMFs from operational electrical equipment, such as transmission lines, transformers and the electrical components found within BESS units, inverters, etc. This equipment has the potential to produced ELF EMF's in the range of 30 to 300 Hz.

### 4.10.2 Existing Standards

There are currently no existing standards in Australia for governing the exposure limits to ELF EMFs; however, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) has provided some guidelines around exposure limits for prolonged exposure which limits the exposure to 2,000 milligauss (mG) for members of the public in a 24 hour period (Ref. [11]).

**Table 4-2** provides typical magnetic field measurements and ranges associated with EMF sources. It is noted that electric fields around devices are generally close to 0 due to the shielding provided around the equipment. In addition, EMF levels drop away quickly with distance; hence, while a value may be measurable at the source, within a short distance the EMF is undetectable.

**Table 4-2: EMF Sources and Magnetic Field Strength**

| Source | Typical Measurement (mG) | Measurement Range (mG) |
|---|---|---|
| Television | 1 | 0.2 – 2 |
| Refrigerator | 2 | 2 – 5 |
| Kettle | 3 | 2 – 10 |
| Personal computer | 5 | 2 – 20 |
| Electric blanket | 20 | 5 – 30 |
| Hair dryer | 25 | 10 – 70 |
| Distribution powerline (under the line) | 10 | 2 – 20 |
| Transmission power line (under the line) | 20 | 10 – 200 |
| Edge of easement | 10 | 2 – 50 |

### 4.10.3 Exposure Discussion

A review of the site indicates the nearby residences adjacent to the area where the BESS will be developed are separated by approximately 100 m providing substantial distance for attenuation of EMFs.

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) advises that the strength of radiation decreases exponentially with distance from the source, and it will become indistinguishable from background radiation within 50 m of a high voltage power line and within 5 to 10 m of a substation. (Ref. [12]).

A field study was undertaken to characterise the EMF between the frequencies of 0 – 3 GHz at two large scale solar facilities operated by the Southern California Edison Company in Porterville and San Bernardino, (Ref. [13]).

The field study findings were adopted to estimate the EMF measurements for the project. The findings are as follows:

- The highest DC magnetic fields were measured adjacent to the inverter (277 µT) and transformer (258 µT). These fields were lower than the ICNIRP's occupational exposure limit.
- The highest AC magnetic fields were measured adjacent to the inverter (110 µT) and transformer (177 µT). These fields were lower than the ICNIRP's occupational exposure limit.
- The strength of the magnetic field attenuated rapidly with distance (i.e. within 2-3 metres away, the fields drop to background levels).
- Electric fields were negligible to non-detectable. This is mostly likely attributed to the enclosures provided for the electricity-generating equipment.

As the strengths of EMF attenuate rapidly with distance, the ICNIRP reference level for exposure to the general public will not be exceeded and the impact to the general public in surrounding land uses is negligible.

As the potential for exposure to EMF exceeding the international guidelines is negligible, this incident has not been carried forward for further analysis.

# 5.0 Conclusion and Recommendations

## 5.1 Conclusions

A hazard identification table was developed for the BESS at Kingaroy Solar Farm to identify potential hazards that may be present at the site as a result of operations or storage of materials. Based on the identified hazards, scenarios were postulated that may result in an incident with the potential for offsite impacts. Postulated scenarios were discussed qualitatively and any scenarios that would not impact offsite were eliminated from further assessment. A review of the incidents carried forward for further analysis indicates that there were no observed offsite impacts. Hence, based on the analysis presented in this report, the project would only be classified as potentially hazardous and would be permitted within the current land zoning for the site.

## 5.2 Recommendations

The following recommendations have been made as a result of the analysis:

- BESS must be tested in accordance with UL9540A.
- Testing to demonstrate clearances required to prevent propagation of fires between separated units.
- BESS to be installed in accordance with manufacturer and UL9540A report recommended clearances based on testing.
- BESS to be installed with fire protection systems specified by the manufacturer and UL9540A report.
- Before construction, detailed design to validate the system can be installed in the project area whilst meeting the recommended clearances.
- UL testing information shall be made available to the certifying authority. It is noted that a confidentiality agreement may be required.
- The vent covers of the BESS shall be constructed of non-combustible material.
- The vents shall not be located above battery packs within the BESS container or shall otherwise be prevented from impacting the battery packs in the event of a fire.
- Confirm that all transformers are bunded to contain oil releases. Transformers may be self-bunded on a skid, otherwise they will require a dedicated concrete bund.

## 6.0 References

[1] Department of Planning, Industry and Environment, “Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis,” Department of Planning, Industry and Environment, Sydney, 2011.

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[9] J. Demos, “What Causes Transformer Explosions and Burns?,” Durabarrier USA Fire Barrier Experts, 26 July 2021. [Online]. [Accessed 2 February 2022].

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[11] International Commission on Non-Ionizing Radiation Protection, “ICNIRP Guideline for Limiting Exposure to Time-Varying Electric and Magnetic Fields (1-100 Hz),” International Commission on Non-Ionizing Radiation Protection, 2010.

[12] EMM Consulting, “Planning Permit Application - Mornington Battery Energy Storage System,” Maoneng Australia Pty Ltd, Sydney, 2021.

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[14] Standards Australia, “AS/NZS 3000:2007 - Wiring Rules,” Standards Australia, Sydney, 2007.

[15] Workplace Health and Safety Queensland, “Planning Guildeline State Code 21: Hazardous Chemical Facilities,” Workplace Health and Safety Queensland, Brisbane, 2022.

# Appendix A

## Hazard Identification Table

## A1. Hazard Identification Table

| Area/Operation | Hazard Cause | Hazard Consequence | Safeguards |
|---|---|---|---|
| Battery Storage | • Failure of Li-ion battery protection systems | • Thermal runaway resulting in fire or explosion<br>• Incident propagation through battery cells<br>• Toxic smoke dispersion | • Batteries are tested by manufacturer prior to sale / installation<br>• Overcharging and electrical circuit protection<br>• Battery monitoring systems<br>• Batteries composed of subcomponents (i.e. modules, cells) reducing risk of substantial component failure<br>• Batteries are not located in areas where damage could easily occur (i.e. within the fenced property)<br>• Electrical systems designed per AS/NZS 3000:2007 (Ref. [14])<br>• HVAC system<br>• Blast panels and pressure relief vents<br>• Nitrogen agent fire suppression<br>• UL9540A testing |
| Switch rooms, communications, etc. | • Arcing, overheating, sparking, etc. of electrical systems | • Ignition of processors and other combustible material within servers and subsequent fire | • Fires tend to smoulder rather than burn<br>• Isolated location<br>• Switch room separation from other sources of fire |
| Transformers | • Arcing within transformer, vaporisation of oil and rupture of oil reservoir | • Transformer oil spill into bund and bund fire | • Self-bunded transformer skids<br>• Separated from combustible materials and sensitive receptors |
| | • Power surge to transformers (e.g. from lightning) | • Major failure of surge protection in transformer, vapourisation of oil, ignition and explosion | • Transformers have surge protection system to shut down upon detection of extreme energy input<br>• Lightning protection to prevent lightning strikes impacting transformers<br>• Control of ignition sources – no smoking / open flames around the transformers |

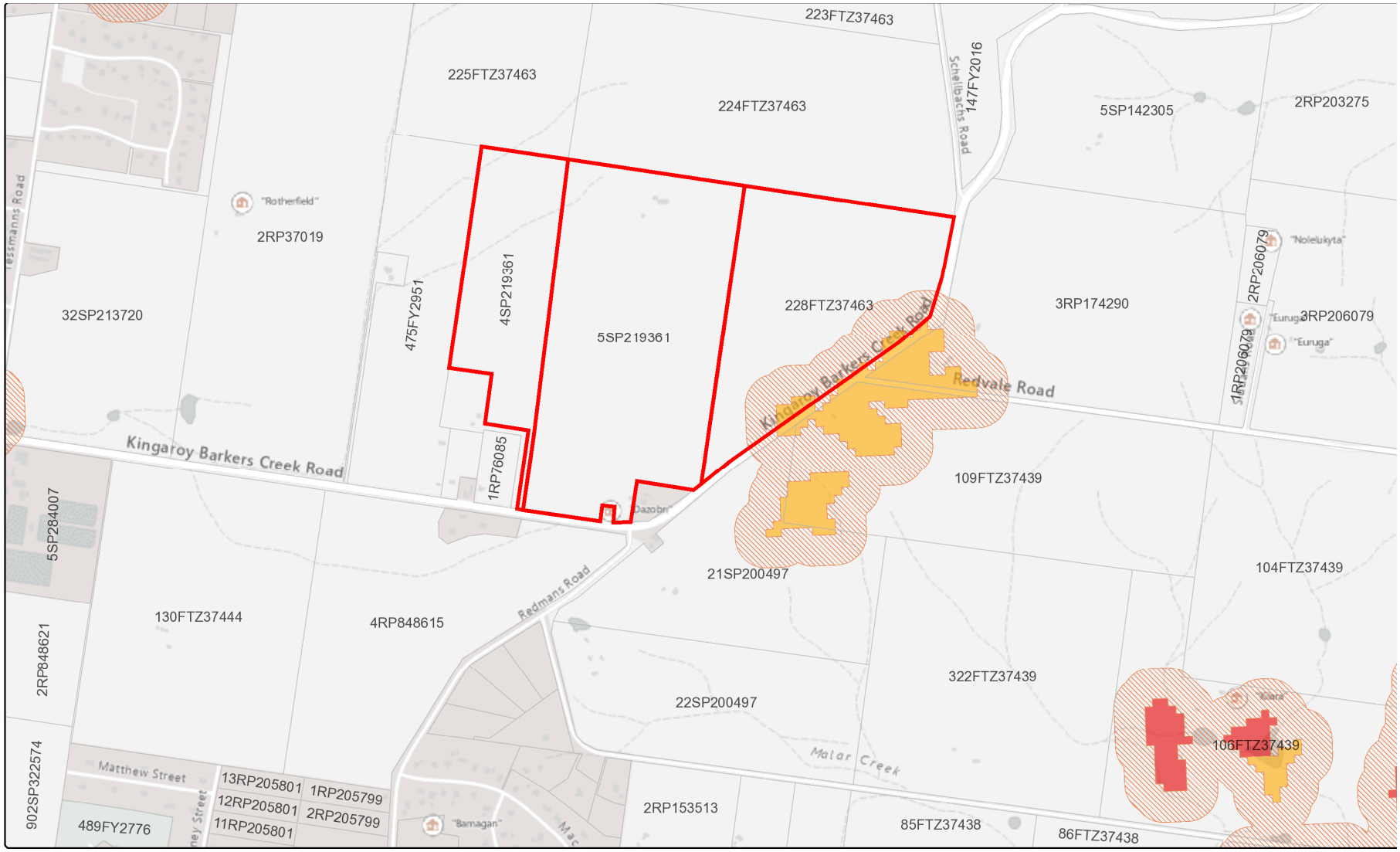
| Area/Operation | Hazard Cause | Hazard Consequence | Safeguards |
|---|---|---|---|
| EMF | • Electric and magnetic equipment | • Generation of ELF EMF and injury / nuisance to surrounding area | • Separation distances allow for attenuation of EMFs<br>• Cumulative impacts from equipment below acceptable thresholds.<br>• Low occupancy density within vicinity of the development |

# Appendix B

## Supporting Information



RPS AAP Consulting Pty Ltd
Document No. RCE-24331_Kingaroy_PHA_Final_10Mar25_Rev(1)
Date 10/03/2025




Queensland Government

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## State Planning Policy

**Making or amending a local planning instrument and designating land for community infrastructure**

0 290 580 870 1,160

Metres

Date: 09/10/2024

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## Legend

**Drawn Polygon Layer**

Override 1

**Cadastre (25k)**

Cadastre (25k)

**Bushfire prone area**

Very High Potential Bushfire Intensity

High Potential Bushfire Intensity

Medium Potential Bushfire Intensity

Potential Impact Buffer

Queensland Government

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## State Planning Policy

**Making or amending a local planning instrument and designating land for community infrastructure**

Date: 09/10/2024

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**CSA GROUP**
**Laboratory Test Data - UL 9540A**

Master Contract:*303757*
Report*: 80214634*
Project: *80214634*

*November 25, 2024*

*Mr. Accounts Payable*
*Project manager*
*Zhejiang Jinko Energy Storage Co., Ltd.*
*No.8,Xiangxin Road,Huangwan Town,*
*Haining city,Jiaxing,*
*Zhejiang 314415,China*

Subject: *1P416S Rechargeable Li-ion Battery Rack, model JKR-417K-LAA (UL 9540A Test Report)*

Dear *Mr. Accounts Payable*

We are pleased to inform you that testing of your product per UL 9540A has been completed. Applicable test(s) was witnessed at ChuWeiNeng Testing Technology (Shanghai) Co.Ltd, and witnessed by CSA Group – Kunshan. Unit level of test was conducted on the sample provided and the results are enclosed in the test report.

> Note: This Test Report is not an Authorization to apply the CSA Mark to the product. The results contained in the report(s) provided are contingent upon the characteristics of the actual sample(s) used in the investigation. In the absence of a continuing inspection service, CSA provides no assurance, expressed or implied, that the contents of the report are applicable to reproductions of the sample(s). Use or reproduction of the CSA name, logo, or trademark is not permitted without the prior written consent of CSA. No references can be made to this report when using the results of this investigation for the purposes of advertising, promotion or litigation, without the prior written consent of CSA.

Please examine the enclosed documents and contact me if you have any questions or would like us to make any changes.

On behalf of CSA, I would like to thank you for your business and offer our services for your future needs.

Yours truly,

*Evan Zhang*
CSA –*CCIC-CSA International Certification Co., Ltd. Kunshan Branch*
*2F-1, Building C12, No 555 Dujuan Road, Kunshan Economic & Technical Development Zone, Kunshan, Jiangsu, China 215331*

CSA GROUP
Laboratory Test Data – UL 9540A

Encl. [*UL 9540A Test Report*]
*Att.1 – Unit charge/discharge conditioning graphs*
*Att.2 - Photos*
*Att.3 - Diagram and dimension of test setup*
*Att.4 - Temperature/voltage graph during testing*
*Att.5 - Heat release rate graph*
*Att.6 - Gas generation graph*
*Att.7 - Smoke release graph*
*Att.8 - Heat flux graph*
*Att.9 - Notable observation during test*
*Att.10 - Video (separated file)*

CSA GROUP

## Laboratory Test Data - UL 9540A Checklist and Test Result (Unit Level)

## ORIGINAL TEST DATA

*The results relate only to the items tested.*
*This report shall not be reproduced, except in full, without the approval of CSA Group Testing & Certification Inc.*

| | | | | |
|---|---|---|---|---|
| Master Contract: | 303757 | Model: | JKR-417K-LAA | Page number 1 of 45 |
| Project / Network: | 80214634 | Description: | 1P416S Rechargeable Li-ion Battery Rack | |

Standard(s): ANSI/CAN/UL 9540A:2019 Fourth Edition, Dated November 12, 2019 - Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems

| | |
|---|---|
| **Testing Laboratory Name:** | CCIC-CSA International Certification Co.,Ltd. Kunshan Branch |
| **Address:** | 2F-1, Building C12, No 555 Dujuan Road, Kunshan Economic & Technical Development Zone, Kunshan, Jiangsu, China 215331 |
| **Testing Program:** | **Custom Test** : Cover Latter ☒, Testing Only ☐ |

If tests were performed at another facility, then described below:

| | |
|---|---|
| **Testing Laboratory Name:** | ChuWeiNeng Testing Technology (Shanghai) Co.Ltd |
| **Address:** | Building 3, No.1065 Beihe Road, Jiading District, Shanghai |
| **Facility Qualification Number:** | N/A |

| | |
|---|---|
| | *As above / or describe otherwise* |
| **Customer:** | Zhejiang Jinko Energy Storage Co.,Ltd. |
| **Address:** | No.8,Xiangxin Road,Huangwan Town,Haining city,Jiaxing, Zhejiang 314415,China |

**Tested By:** Haoran Zhang, Tichnician
*Name, Title*

Haoran Zhang — 2024-11-14~2024-11-19
*Signature* — *Date (YYYY-MM-DD)*

☒ **Reviewed by:** Evan Zhang, Certifier
☒ **Witnessed by:**
*Name, Title*

Evan Zhang — 2024-11-14~2024-11-19
*Signature* — *Date (YYYY-MM-DD)*

*Version6 : 2022-08-02*

**CSA GROUP**
**Laboratory Test Data – UL 9540A**

Master Contract:*303757*
Report*: 80214633*
Project: *80214633*

*November 12, 2024*

*Mr. Accounts Payable*
*Project manager*
*Zhejiang Jinko Energy Storage Co., Ltd.*
*No.8,Xiangxin Road,Huangwan Town,*
*Haining city,Jiaxing,*
*Zhejiang 314415,China*

Subject: *Rechargeable Lithium-ion Battery Module, model JKPK-104K-1P104S-LAA (UL 9540A Test Report)*

Dear *Mr. Accounts Payable,*

We are pleased to inform you that testing of your product per UL 9540A has been completed. Applicable test(s) was witnessed at ChuWeiNeng Testing Technology (Shanghai) Co.Ltd, and witnessed by CSA Group – Kunshan. Module level of test was conducted on the sample provided and the results are enclosed in the test report.

> Note: This Test Report is not an Authorization to apply the CSA Mark to the product. The results contained in the report(s) provided are contingent upon the characteristics of the actual sample(s) used in the investigation. In the absence of a continuing inspection service, CSA provides no assurance, expressed or implied, that the contents of the report are applicable to reproductions of the sample(s). Use or reproduction of the CSA name, logo, or trademark is not permitted without the prior written consent of CSA. No references can be made to this report when using the results of this investigation for the purposes of advertising, promotion or litigation, without the prior written consent of CSA.

Please examine the enclosed documents and contact me if you have any questions or would like us to make any changes.

On behalf of CSA, I would like to thank you for your business and offer our services for your future needs.

Yours truly,

*Evan Zhang*
CSA –*CCIC-CSA International Certification Co., Ltd. Kunshan Branch*
*2F-1, Building C12, No 555 Dujuan Road, Kunshan Economic & Technical Development Zone, Kunshan, Jiangsu, China 215331*

CSA GROUP
Laboratory Test Data – UL 9540A

Encl. [*UL 9540A Test Report*]
*Att.1 - Module charge/discharge conditioning graphs*
*Att.2 - Photos*
*Att.3 - Cell temperature/voltage graph during testing*
*Att.4 - Heat Release Rate graphs*
*Att.5 - Gas generation graphs*
*Att.6 - Smoke release graph*
*Att.7 - Notable observation during test*
*Att.8 - Video (separated file)*

CSA GROUP

# Laboratory Test Data – UL 9540A Checklist and Test Result (Module Level)

## ORIGINAL TEST DATA

*The results relate only to the items tested.*
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| | | | | |
|---|---|---|---|---|
| Master Contract: | 303757 | Model: | JKPK-104K-1P104S-LAA | Page number 1 of 23 |
| Project / Network: | 80214633 | Description: | Rechargeable Lithium-ion battery module | |

Standard(s): ANSI/CAN/UL 9540A:2019 Fourth Edition, Dated November 12, 2019 - Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems

| | |
|---|---|
| **Testing Laboratory Name:** | CCIC-CSA International Certification Co.,Ltd. Kunshan Branch |
| **Address:** | 2F-1, Building C12, No 555 Dujuan Road, Kunshan Economic & Technical Development Zone, Kunshan, Jiangsu, China 215331 |
| **Testing Program:** | **Custom Test** : Cover Latter ☒, Testing Only ☐ |

If tests were performed at another facility, then described below:

| | |
|---|---|
| **Testing Laboratory Name:** | ChuWeiNeng Testing Technology (Shanghai) Co.Ltd |
| **Address:** | Building 3, No.1065 Beihe Road, Jiading District, Shanghai |
| **Facility Qualification Number:** | N/A |

| | |
|---|---|
| | *As above / or describe otherwise* |
| **Customer:** | Zhejiang Jinko Energy Storage Co.,Ltd. |
| **Address:** | No.8,Xiangxin Road,Huangwan Town,Haining city,Jiaxing, Zhejiang 314415,China |

**Tested By:** Jinkun Chen (Technician)
*Name, Title*

Jinkun Chen — 2024-09-11
*Signature* — *Date (YYYY-MM-DD)*

☒ **Reviewed by:** Evan Zhang (Certifier)
☒ **Witnessed by:**
*Name, Title*

Evan Zhang — 2024-09-11
*Signature* — *Date (YYYY-MM-DD)*

*Version6.2 : 2023-06-15*

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# SUNTERA

## JKE-5015K-2H-LAA

SunTera JKE-5015K-2H-LAA is JinkoSolar's new generation of liquid cooling energy storage product, which is equipped with 314Ah LFP cells and integrated with the industry's advanced design concept. SunTera is a safe, reliable, low-cost and high-performance product that provides customers with highly efficient integrated energy storage solutions. In the context of building a new type of power system, JinkoSolar will continue to uphold the mission of changing the energy structure and taking responsibility for the future to provide more reliable products and better experience to customers worldwide.

### Intelligent Liquid Cooling

- Non-uniform refined flow channels,with a temperature difference ≤2℃
- Multiple liquid cooling control modes, reducing system auxiliary power consumption by 20%

### Higher Efficiency

- Rack-level management scheme, RTE increased by more than 2%
- Compatible with active equalization technology, enhancing the consistency of cell operation within the Rack

### Safe and Reliable

- Five-level protection from cell to system to prevent thermal runaway
- Mixed explosion-proof system with integrated gas and water fire suppression

### Intelligent Operation and Maintenance

- Intelligent control management, efficient commissioning, and reduced operational and maintenance costs
- Supports back-to-back and side-by-side placement to increase energy density at the site

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## ESS in Power Generation

Enhance the stability, continuity and controllability of new energy generation to provide stability support to the grid.

## ESS in Grid Side

Participate in grid dispatching to meet the demand of grid peaking and frequency regulation, thus enhancing the flexibility and stability of the power system.

## ESS in User Side

Relieving the load on the power grid, meeting the demand for electricity from different customers, improving the security of electricity on the customer's side, and thus enhancing the customer's experience of using electricity.




| Items | Parameters |
|---|---|
| Type of cell | Lithium Iron Phosphate(LFP) |
| Cell parameter | 3.2V/314Ah |
| Max.charge/discharge power | 0.5P |
| Configuration of system | 1P416S×12 |
| Rated capacity | 5.01 MWh |
| Rated voltage | 1331.2V |
| Voltage range | 1164.8~1497.6V |
| Cooling method | Liquid Cooling |
| Operating temperature | -30~50℃ |
| Humidity | ≤95%RH, no condensation |
| Altitude | <3000m, derating above 2000m |
| Noise level | ＜ 80dB(A), @1m/ 75dB(optional) |
| IP grade | IP55 |
| Storage temperature | -30~45℃ |
| Corrosion-proof grade | C4/C5(optional) |
| Fire protection | Temperature sensor + Smoke detector + Combustible gas detector + Deflagration venting + Fire extinguishing gas + Water sprinkler |
| External communication interface | Ethernet/CAN/RS485 |
| Dimension(L×W×H) | 6058×2438×2896mm |
| Weight | ≈42000 kg |

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JKE-5015K-2H-LAA



# Australian Standards Compliance Review

## Liquid Cooling Energy Storage Container
## SunTera JKE-5015K-2H-LAA

Jinko Solar

December 2024

# 1 Introduction

RINA Tech Renewables Australia Pty Ltd ('RINA') has been appointed by Jinko (the Client) to provide independent review services to support the Client's 5.01MWh BESS product JKE-5015K-2H-LAA (the Product).

The work was based on the documentation provided by the Client. While every effort has been made to check source information, RINA takes no responsibility for the completeness or correctness of the information provided. RINA's assumes that the product has been designed following good engineering practices and has met its stated functions and specifications. Based on this, RINA's review is focusing on the safety aspects of installing and operating the product under Australian practices but does not include detail review of their engineering design, calculations, methodology or equipment selection.

Throughout the main text of this report, the main issues identified as well as important recommendations are highlighted through ***bold italic font***. Within the Risk Register in Section 2 below, the risk level of all main issues identified has been colour coded for ease of reference. Throughout the report, RINA has provided comments and opinions on the risks identified and has recommended suitable mitigation strategies.

Each of these services is presented in the subsequent sections of this report.

## 1.1 Summary of review outcomes

RINA has reviewed the Product, against the applicable sections of the following documents:

- AS 3000: 2018 Electrical installations (known as the Australian/New Zealand Wiring Rules)
- AS 3008.1: 2017 Electrical installations - Selection of cables for alternating voltages up to and including 0.6/1 kV - Typical Australian installation conditions.
- Best Practice Guide: Battery Storage Equipment – Electrical Safety Requirements
- AS 5139: 2019 Electrical installations - Safety of battery systems for use with power conversion equipment
- Design Guidelines and Model Requirements: Renewable Energy Facilities, Country Fire Authority (CFA) v4

RINA considers the product design has achieved the above standards, subject to the recommendations and issues noted in the Key Issues Register.

## 1.2 Certifications Status

The Client has provided all the test certificates and reports required by the Battery System Best Practice Guide, AS 5139, and Country Fire Authority (CFA) for the Product, including UL 1973, UL 9540, and 9540 A, as well as IEC 62619 at the battery cell, battery pack, and battery unit levels.

Table 1 summarises the status of required certificates. The test plan for the Product is still in process, and RINA has been advised that the outstanding certificates will be obtained by early 2025.

***RINA's review of the Battery System Best Practice Guide, AS 5139, and CFA in this report has been based on the provided certificates, which achieve the applicable requirements.***

**Table 1: Certifications and test reports status**

| | Certification | Estimated Completion time |
|---|---|---|
| Cell level | UN38.3 | Completed |
| | UL1973 | Completed |
| | UL9540A | Completed |
| | IEC62619 | Completed |
| | | |
| Pack Level | UN38.3 | Completed |
| | UL1973 | Completed |
| | UL9540A | Completed |
| | IEC62619 | Completed |
| | IEC63056 | Completed |
| | | |
| Rack Level | UN38.3 | Completed |
| | UL1973 | Completed |
| | UL9540A | Completed |
| | IEC62619 | Completed |
| | IEC63056 | Completed |
| | IEC60730-1 | Completed |
| | IEC61000-6-4 | Completed |
| | IEC61000-6-2 | Completed |
| | IEC 62477-1 | Completed |
| | | |
| System Level | UL9540 | Completed |
| | IEC62477-1 | Completed |
| | IEC61000-6-4 | Completed |
| | IEC61000-6-2 | Completed |
| | IEC62619 | Completed |
| | NFPA 855 | January 2025 |




**Revision Log**

| Version | Description | Date | AU Author | AU Reviewer | HQ Approver |
|---|---|---|---|---|---|
| V1.0 | First version | 30/09/2024 | JC | DM | - |
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*ATE AND CONFIDENTIAL*

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# Introduction

## Purpose of the Proposal

This document serves as a comprehensive technical description of the energy storage solutions offered by Jinko. It aims to provide detailed insights into the functionality, specifications, and components of our Energy Storage System (BESS). It is crucial to define and adhere to the relevant parameters and operating instructions to ensure optimal product performance. Please note that Jinko reserves the right to modify product specifications without prior notice.

## Jinko BESS Characteristics

Jinko has independently developed and produced our own Lithium Iron Phosphate (LFP) battery, which possesses several key characteristics. It excels in high safety standards, exceptionally long cycle life, superior charge, and discharge rates, and demonstrates a commitment to environmental friendliness throughout its operational lifetime. As a result, our LFP batteries have become the preferred choice for energy storage systems. The following highlights the key features of our system:

- Large battery storage capacity and heightened conversion cycle efficiency.
- Large energy density within a single 20-foot standard container, with a maximum capacity of up to 5.015MWh per unit.
- Jinko SunTera 5MWh generation has the adjustable capacity from 4.179MWh to 4.597 MWh and then 5.015MWh, to configure different range of energy storage system.
- Adoption of a liquid cooling system ensures improved thermal management, enhanced efficiency, uniform temperature distribution, higher power and energy densities, and greater design flexibility. This intelligent liquid cooling system with low-temperature fluctuations, features individually insulated liquid flow for each pack.
- BMS with real-time monitoring capabilities, including single-cell voltage and temperature, total current, total voltage, and ambient temperature of the battery.
- Enhanced container capacity and power flexibility through multiple protection functions, preventing overcharging and discharging.
- Individual rack design with dedicated fire protection layers for each unit for ensuring the safety and secure operation of the energy storage system
- High modularity, split design with container being split into 2 system subsystems for additional design flexibility, convenient installation and maintenance procedures.
- Container equipped with audible and visual alarms, automatic fire detection and extinguishing systems, FK5112 agent fire protection and gas detection systems, and exhaust mechanisms to detect and discharge combustible gas concentrations in advance. Additionally, the container includes fire hydrant connections and water extinguish pipes for fire prevention.
- Integrated with cameras, surveillance systems, and access control to ensure restricted access to authorised personnel only, while also enabling a remote monitoring system for comprehensive oversight of the system's operational nodes from a centralised monitoring room.

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## Codes and Standards

Jinko's Energy Storage System (BESS) equipment is designed to meet and comply with relevant Australian legislation, regulations, and internationally recognised standards, including the UN, UL and IEC.

SunTera's 5 MWh generation BESS is currently undergoing a third-party product review by RINA to confirm its compliance with the range of AS/NZS standards and guides listed below. The full review is target to be complete by 2024.

Our commitment to quality and safety ensures adherence to the following but not limited to:

| Systems' level | Certification and compliance | Description |
|---|---|---|
| Cell level | UN 38.3 | Transportation Testing for Lithium-Ion Batteries |
| | UL 1973 | Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power, and Light Electric Rail (LER) Applications. |
| | UL 9540A | Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems. |
| | IEC 62619 | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Secondary Lithium Cells and Batteries. |
| | | |
| Pack Level | UN 38.3 | Transportation Testing for Lithium-Ion Batteries |
| | UL 1973 | Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power, and Light Electric Rail (LER) Applications. |
| | UL 9540A | Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems. |
| | IEC 62619 | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Secondary Lithium Cells and Batteries. |
| | IEC 63056 | Specifies requirements and tests for the product safety of secondary lithium cells and batteries used in electrical energy storage systems with a maximum DC voltage of 1500V (nominal). |
| | | |
| Rack Level | UN 38.3 | Transportation Testing for Lithium-Ion Batteries |
| | UL 1973 | Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power, and Light Electric Rail (LER) Applications. |
| | UL 9540A | Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems. |
| | IEC 62619 | Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Secondary Lithium Cells and Batteries. |
| | IEC 63056 | Specifies requirements and tests for the product safety of secondary lithium cells and batteries used in electrical energy storage systems with a maximum DC voltage of 1500V (nominal). |
| | IEC 60730-1 | Automatic electrical controls - Part 1: General requirements |

| | | |
|---|---|---|
| | IEC 61000-6 | Electromagnetic compatibility (EMC): Generic standards - Immunity standard for residential, commercial and light-industrial environments |
| | IEC 62477-1 | Safety requirements for power electronic converter systems and equipment - Part 1: General |
| | | |
| RINA compliance review | IEC/EN 60947 | Low-voltage switchgear and control gear |
| | IEC/EN 60269 | Technical standards for Low-voltage fuses |
| | IEC/EN 61643 | Technical standards for Low-voltage surge protective devices |
| | IEC/EN 61009 | Technical standards for Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) |
| | IEC 60227 | Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V |
| | AS/NZS 3000:2018 | Wiring Rules - specifies requirements for the design, construction and verification of electrical installations, including the selection and installation of electrical equipment forming part of such electrical installations. |
| | AS/NZS 3008.1.1:2017 | Sets out a method for cable selection for those types of electrical cables and methods of installation that are in common use at working voltages up to and including 0.6/1 kV at 50 Hz a.c. |
| | AS/NZS 60947.1:2021 | AS/NZS 60947.1 adopts IEC 60947 1:2020 with modifications for Australia and New Zealand, general rules and common safety requirements for low-voltage switchgear and controlgear, the rated voltage of which does not exceed 1 000 V AC or 1 500 V DC. |
| | AS/NZS 3112:2017 | Standard for AC power plugs (male) and sockets (female). |
| | AS/NZS 5139:2019 | Specifies requirements for general installation and safety requirements for battery energy storage systems (BESSs) |
| | Battery Best Practice Guide (2018) | CEC approved guide for Battery Storage Equipment – Electrical Safety Requirements and the associated Battery Storage Equipment. This best practice guide has been developed by industry associations involved in renewable energy battery storage equipment, with input from energy network operators, private certification bodies, and other independent stakeholder groups and individuals, as well as consumer and electrical safety regulators. |

We prioritize the highest standards of performance, reliability, and safety to provide our clients with cutting-edge energy storage solutions. Any additional project required certificates and compliance checks can be considered upon request.

# 1. Battery Energy Storage System

## Configuration



Figure 1: Internal Perspective View of SunTera

The energy storage battery system is designed in a container-type configuration, ensuring convenient installation and flexibility in various applications. The BESS integration comprises essential components and devices that work in harmony to deliver optimal performance and safety. These include battery racks, battery management system (BMS) for efficient monitoring and control, a liquid cooling system to maintain optimal temperature levels, a fire suppression system to ensure utmost safety, and integrated cabinet that provide the necessary infrastructure for seamless operation.

The project incorporates a 3.2V 314Ah lithium iron phosphate battery solution. Within each container, there are 10~12 battery racks, with each rack boasting a 418kWh capacity. These battery racks are comprised of 4 battery packs and 1 switch box, with each pack featuring 104 cells connected in series.

To ensure the utmost safety and stability, the battery system is equipped with a comprehensive three-level battery management system (BMS) encompassing pack level, battery rack level, and system level management. This hierarchical structure enables complete control, meticulous oversight, and robust protection of the battery system, guaranteeing its secure and reliable operation throughout its lifespan.

By incorporating these integral elements, the ESS integration guarantees the reliable and efficient operation of the energy storage system. Each component plays a critical role in enhancing the overall functionality, performance, and safety of the system. The integration of these devices underscores our commitment to delivering a comprehensive and technologically advanced solution for your energy storage needs.

The electrical specification parameters of SunTera battery container system are shown in the following table:

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Table 1: Battery Container System Specification

| Item | Parameter |
|---|---|
| Product Model | JKE-4179K/4597K/5015K-2H-LAA |
| Rated Capacity | 4.179/4.597/5.015MWh |
| Cell type | LFP |
| Max. Charge/Discharge Rate | 0.5P |
| Configuration | 1P416S×10/11/12 racks |
| Rated Voltage | 1331.2V |
| Voltage Range | 1164.8~1497.6V |
| Cycle Life | >11000 |
| BMS Communication | CAN/RS485/LAN |
| External Communication Interface | Ethernet/Fiber (Optional) |

**Battery Cell**



Figure 2: Schematic Diagram of the Shape of a Single Cell

This project incorporates the utilization of 3.2V 314Ah lithium iron phosphate batteries renowned for their exceptional safety, reliability, and longevity. These batteries offer high system efficiency and an extended cycle life, ensuring optimal performance over an extended period.

This advanced battery technology exhibits exceptional performance characteristics. With a maximum continuous charge-discharge rates of 0.5P/0.5P at an ambient temperature of 25℃, it ensures efficient energy transfer and utilization. Moreover, the battery offers an impressive cycle life, capable of enduring a minimum of 7300 charge-discharge cycles. This extended cycle life demonstrates the longevity and durability of our energy storage solution.

The cell specification parameters are shown in the following table:

Table 2: 314Ah Cell Specification

| Item | Parameter | Item | Parameter |
|---|---|---|---|
| Cell maker | EVE | Model | MB31 |
| Rated capacity | 314Ah | Rated voltage | 3.2V |
| Rated energy | 1004.8Wh | Voltage range | 2.8V~3.6V |
| Weight | 5.7±0.15kg | Energy density | 176.3Wh/kg |
| Dimension (L×W×H) | (174.26±0.5)*(207.61±0.5)*(71.72±0.5)mm | | 387.3kWh/L |

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**Battery Pack**



Figure 3: Battery Pack Shape

The battery pack is composed of 104 individual cells arranged in a 1P104S configuration, resulting in a total power capacity of 104kWh. To optimize performance and ensure long-term reliability, our battery pack incorporates an advanced liquid cooling system. This system integrates cooling water pipes within the pack, effectively dissipating heat generated during operation and enabling efficient thermal management. By actively controlling temperature levels, the liquid cooling system enhances overall performance and extends the lifespan of the battery pack. And the specification is shown in the table below.

Table 3: Specification of Battery Pack JKPK-104K-1P104S-LAA

| Item | Parameter |
|---|---|
| Configuration | 1P104S |
| Max charge/discharge rate | 0.5P |
| Rated capacity | 314Ah |
| Rated energy | 104kWh |
| Rated voltage | 332.8V |
| Operating voltage range | 291.2V~374.4V |
| Cooling method | Liquid cooling |
| IP protection grade | IP67 |
| Dimension (W*D*H) | 800mm x 2170mm x 240mm |
| Weight | 650±5kg |

**Battery Rack**

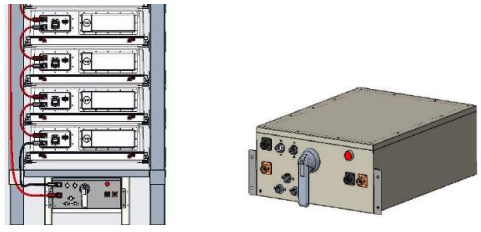


Figure 4: Battery Rack and High Voltage Box Shape

Each battery rack boasts a substantial capacity of 418kWh and is designed to include 8 battery packs seamlessly connected in series, alongside a high voltage box where contains BCU, high and low voltage electrical protection parts, etc. The rack specifications are shown in the table below.

Table 4: Specification of Battery Rack JKR-418K-LAA

| Item | Parameter |
|---|---|
| Configuration | 1P416S |
| Max charge/discharge rate | 0.5P |
| Rated capacity | 314Ah |
| Rated energy | 418kWh |
| Rated voltage | 1331.2V |
| Voltage range | 1164.8V~1497.6V |
| Cooling method | Liquid cooling |
| Dimension (L×W×H) | 930x2173x2446mm (2 clusters) |
| Weight | ~5400kg (2 clusters) |

**Battery Management System**

The Battery Management System (BMS) of the energy storage system adopts a robust three-level architecture to ensure efficient monitoring and control.

It adopts the industry mainstream battery management system program, using high-performance automotive-grade main chip.

Containing two parts of the energy storage system monitoring and battery management system, each system contains a battery slave control unit (BMU), the master control unit (BCU), stack control unit (BSU), high-voltage control unit, as well as the battery display control unit and so on.

This management system is used to detect the single cell voltage, temperature and total current of single cluster, calculate the SOC of the battery cluster, store the relevant battery cabinet manufacturing information, version information and the necessary operation history data, the battery management system units communicate in real time through the CAN bus, the master control unit transmits the operation status of the battery cluster and alarm information to the stack control unit, and at the same time receives real-time operating instructions issued by the stack control unit.

At the same time, it receives real-time operation commands from the pile control unit. The management system can automatically carry out high-voltage and thermal management, coordinate the automatic balancing function of the battery of the whole energy storage system, and automatically calibrate the SOC according to the calculation if necessary.

The block diagram of the battery management system is shown below:

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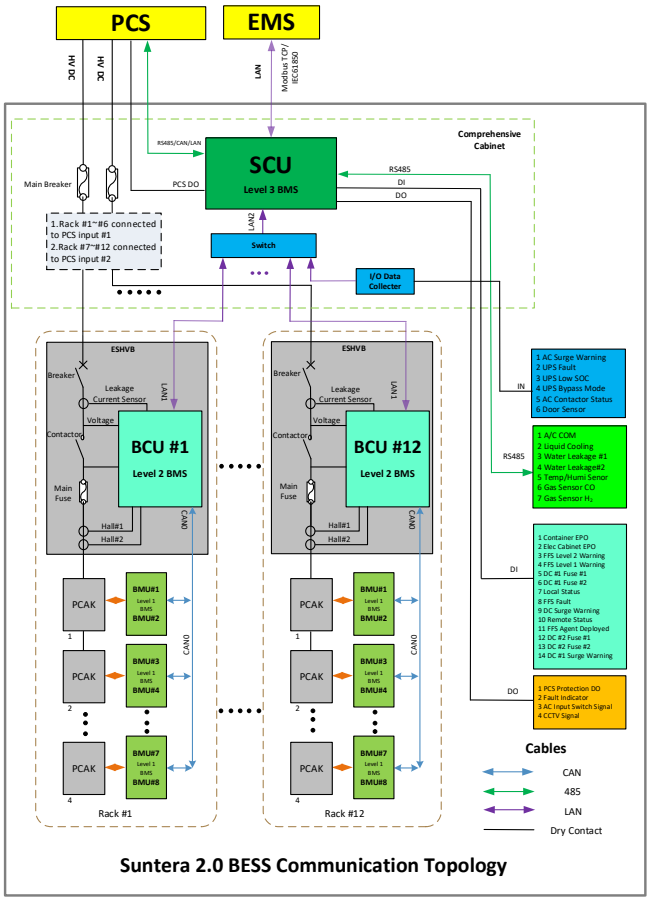



Figure 5: Architecture of BMS

Through this well-designed BMS, the energy storage system ensures optimal performance, safety, and longevity of the batteries, enhancing the overall reliability of the BESS project.

## 1 Battery Slave Unit (BMU)

Battery slave circuit (BMU) is a key component in the battery management system (BMS), which is mainly used to detect the battery voltage and temperature in the battery PACK.

The BMU is mainly used to detect the single cell voltage and temperature of the battery in the PACK, alarm the single cell voltage status and temperature status abnormality, and send the relevant voltage information, temperature information and alarm information to the battery master control (BCU), temperature information and alarm information to the BCU.

When the voltage of each cell in the battery PACK is not consistent, the BMU can discharge and equalize the single battery through the internal equalization circuit to keep the voltage of the whole battery pack consistent and improve the output energy and cycle life of the battery pack.

The main functions of BMU are as follows:

1) Completing the voltage detection of 104 strings of cells in the battery PACK.
2) Temperature detection for 4 channels of battery PACK.
3) Wake-up function.
4) Cascade function.
5) Communication function.
6) Address auto-encoding function.

2 **Battery master control unit (BCU)**

As the battery management unit of the battery cluster, BCU coordinates and manages the operation of the whole battery cluster.

It is responsible for single cell voltage monitoring and temperature monitoring; total voltage and current collection of the battery cluster; diagnosis of input power supply, relay status and other functional status; intelligent operation of the power cabinet system and real-time monitoring.

Key Features:

1) CAN communication function, BCU has two CAN channels:
   MCAN: The BCU is able to communicate with each BMU in the battery cluster through CCAN to obtain the voltage and temperature of the single cell from the BMUs and to obtain the working status of the BMUs; at the same time, the BCU is able to send commands to the BMUs for equalization control.
   CCAN: The BCU sends the collected information such as current, voltage, temperature and SOC to the BSU through CCAN, and receives commands from the BSU at the same time.

2) SOC calculation
   The BCU is capable of performing SOC calculations based on parameters such as the voltage of a single cell, the total cluster voltage, temperature and time.

3) Smoke Detection
   The BCU is able to detect smoke in the electrical cabinet in time to prevent dangerous situations.

4) Temperature Detection
   Real-time detection of different temperature points distributed on the battery cluster to prevent dangerous situations.

5) Settable ID Configuration
   BCU has hardware configurable ID configuration, which can be effectively and reasonably configured according to the different architectures of the system.

6) Current sampling
   An external Hall sensor is used to detect the total current of the electrical cabinet.

7) Auxiliary contact detection
   Auxiliary contact detection circuit with a three-way high-voltage relay to determine whether the high-voltage contacts are engaged.

3 **Battery stack control unit (BSU)**

As an important battery management unit in BMS, BSU module is responsible for the information collection of the whole battery system, SOC calculation and information exchange with each unit module, which is the guarantee for the safe and reliable operation of the whole energy storage system.

Key Features:

1) Communicate with each cell cluster BCU to each other.
   Monitoring the total current and charging and discharging information of the battery system is accomplished by CCAN to calculate the SOC.

2) Communication with external (PCS) via:
   CAN communication
   RS485 communication
   Ethernet

3) Signal management functions.
   BCU monitors one way humidity and three-way ambient temperature, when the temperature exceeds the set value, it turns on the water-cooled unit to control the temperature of the whole cabinet, and at the same time, it monitors all kinds of switching status of the PCS side.

4) Monitor status
   The communication status of the main control cabinet and each cabinet is monitored via the LDP module. Controls the LDP module to perform the High-Risk Alarm Indicator function when there is a critical event.

5) Diagnose the UPS output.
   The BSU is powered by a UPS, which can cut off the power supply when the power supply input voltage is low to the set value or when the current exceeds the threshold value.

6) Controls the on/off switching of the inputs to each cell cluster wake-up circuit.
   Monitor the high voltage and insulation of the system through the high voltage and insulation module and apply or cut off the high voltage by itself when there is any abnormality.

7) External non-volatile memory.
   It can be used to backup important data.

4 **Battery Management System Functions**

Each battery cluster consists of 1 BCU and 4 BMUs and high voltage control control unit. It has detection function, battery individual equalization management function, high voltage management function, statistical storage function, charging and discharging management function, thermal management and communication function.

1) Detection Function
   Real-time detection of each battery cell voltage and temperature. (done by BMU)
   Detecting battery pack charging and discharging currents, using independent sampling channels and control, capable of tracking rapid changes in current (done by BCU)

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Isolated detection of high voltage (HV+ to HV- voltage) at the load side to provide high voltage management information. (done by BCU)
Detects leakage current in the high voltage system and determines the insulation condition of the system. (Completed by BCU)

2) Battery Equalization Function
The BMU, under the cooperative control of the BCU, can decide whether or not to start the discharge equalization according to the single cell voltage and battery pack application.
The specific equalization methods are as follows:
The BMU detects the single unit voltage in real time, and according to the equalization strategy, when it determines that the SOC of a battery unit is not balanced and needs to be discharged, it discharges the battery to the target value, and the equalization stops automatically.

3) Statistical Storage Function
The following information can be counted and stored based on the detection of the charge/discharge current and the internal timing system:
- SOC: State of Charge;
- SOH: State of Health of the battery;
- ChrCap:Cumulative charging capacity;
- DisCAP: Cumulative discharge capacity (characterizing the number of cycles);
- Ichmax:Historical maximum charging current;
- Idhmax:Historical maximum discharge current;
- Tmax: Historical maximum temperature of the battery cell;
- Tmin: the lowest temperature in the history of the battery cell;
- Vmax: the highest voltage in the history of the battery unit;
- Vmin: the lowest voltage in the history of the battery cell;
- TalTime: The cumulative running time of the system;

All the detailed data of system operation and various states will be stored in the battery cell system in situ monitoring computer, the recording period is not higher than 10S, and the record is not less than 1 year of historical data.

4) Charge and Discharge Management Function
During normal operation of the system, the current maximum allowable charge/discharge current value is determined according to the current battery temperature, SOC and SOH, and then this information is given to the PCS in real time through the CAN communication function, so that the PCS control strategy and the battery pack status are closely integrated.
When the system may be operated at the limit because of other faults, it can alarm in time to inform the PCS and monitoring system. In case of extreme severity, apply for high voltage disconnection and exit the charging/discharging working state.

In the event of serious failure of the battery inside the battery cabinet that cannot be recovered in time (e.g., abnormally high or low cell voltage, abnormally high or low temperature, critical sensor signal failure, communication failure between BCU and BMU resulting in a blind zone of monitoring and control, and abnormal working power supply), the high-voltage management system can be applied to withdraw from the parallel circuit and stop charging and discharging, so as to avoid the creation of hazards and expanding.

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5) High Voltage Management Function

Real-time detection of high-voltage conditions and insulation status on both sides of the switch inside and outside, and according to the high-voltage detection status, system communication commands, and battery module status, control the high-voltage relay and high-voltage pre-parallel circuit to execute the high-voltage ports of this battery cabinet cut-in and cut-out to the system.

When the battery cluster connects to the system, it can automatically control the pre-parallel circuit to pre-charge and discharge through the pre-charging high-power resistor in the circuit, so that the voltage inside and outside of the high-voltage switch is close before closing the high-voltage main relay contacts. This avoids high current inrush to the load and high voltage relay contacts, and also does not cause high current inrush to other battery cabinets on the high voltage DC bus.

The system battery cluster design, in the cabinet input, output total positive, total negative are connected in series with high-voltage relays, relays are controlled by the management system, can be sent through the host computer commands to close and disconnect the action, at the same time, when the power supply stops supplying power, the relay is in a state of disconnection, to ensure that the battery cabinet in the transportation, installation and maintenance process of the safety of the relays are also directly controlled by the emergency stop switch, in case of emergency, the emergency stop. The relay is also directly controlled by the emergency stop switch. In case of emergency, the emergency stop switch can immediately disconnect the relay to protect the battery pack and the system. When the management system detects that the battery is out of the normal working condition range, and if it does not respond to the alarm and request for shutdown to the system, it can also disconnect the relay by itself to protect the safety of the battery system.

Timely cut off the high voltage output and sound an alarm when bad insulation is detected. Provide emergency button to disconnect the high voltage circuit in time in case of emergency.

Provide manually operated high voltage circuit breakers that can manually discrete a particular battery cabinet for maintenance and repair work when the system is not down.

High-voltage fuses are provided to protect high-voltage switches, relays, batteries, and high-voltage circuit connections in the event of a sudden external short circuit.

The pre-parallel line is controlled by another high-voltage relay, which is used by the management system to decide to close or disconnect the pre-parallel line based on the detected internal and external parameters to ensure safe and reliable system operation.

6) Alarm function

During the operation of the battery system, alarm thresholds are set according to the characteristics of the battery and the system. When over-voltage, under-voltage, over-current, high-temperature, low-temperature, leakage, communication abnormality, and battery management system abnormality occurs in the operation of the battery, the BSU will be reported to the PCS control system and to the upper monitoring system through the in situ monitoring system, and the alarm information is divided into three levels:

- Level 1 Alarm: Alerts to the fact that the battery system is operating close to the limit values;

- Level 2 Alarm: Battery system operation exceeds the limit value, and PCS is requested to take necessary actions such as limiting power or stopping continued charging and discharging;
- Level 3 Alarm: Battery system operation exceeds the limit value, draw to immediately stop using or exit the system, after waiting for a certain period of time if the PCS does not deal with the response, the management system will force the battery system to exit the operation (this function can be set).

7) Thermal Management Functions

- Heat Dissipation and Thermal Uniformity Management

The BSU decides whether to start the battery cooling system based on the battery temperature reported by the BCU in the electrical box. If the batteries are over-temperature or the temperature difference between the batteries is large, the battery cabinet cooling fan is activated to reduce the temperature or equalize the temperature in each area.

- Preheating and low temperature operation management

Lithium-ion battery, in the low-temperature state if not managed to charge, due to a substantial increase in its internal impedance (mainly caused by the electrolyte's ionic conductivity drops significantly), its internal lithium metal precipitation will occur, resulting in battery performance degradation, irreversible loss of capacity permanently, due to the lithium is a very active metal, a large number of lithium metal precipitation in the internal battery, but also greatly reduces the battery's safe Therefore, it is very important and necessary to manage the low temperature operation of the battery.

Energy storage power stations are often located in relatively harsh environments and remote locations, so there is a chance that the battery stack is working at low temperatures due to various reasons during installation, commissioning and use, and the thermal management function of the battery stack must fully consider this aspect. In the low-temperature thermal management design, the system mainly optimizes the operating environment from the following aspects to ensure the reliable and safe operation of the battery.

The system adopts the battery box liquid cooling heat dissipation method in the structural design. Make the heat exchange between the battery cells and the environment basically controllable (BMS manages whether the water-cooled unit starts or not)

Battery in low temperature, the internal resistance increases, at this time can not be charged, but can be discharged, can be discharged through the current, so that the battery cell self-heating, to be the temperature rises to the normal operating range, the battery stack can be normal charging and discharging operations

It is a general concept that the cell cannot be charged at low temperature. In order to avoid lithium precipitation, it can be realized by an optimized scheme, i.e., according to different temperature conditions, by controlling the charging current and charging voltage (SOC level). The BMS can request the PCS to limit the current and voltage to protect the battery by using the detected temperature data and the state of the cell.

8) Self-diagnostic Function

The battery management system is equipped with self-diagnostic function, which can self-diagnose faults such as interruption of communication between the battery management system and the outside world, abnormal communication within the battery management system, abnormal analog acquisition, etc., and report them to the battery monitoring system.

9) BMS Low Voltage Power Solutions

The whole set of management and control system needs independent external power supply to maintain smooth operation, in order to ensure the reliable long-term operation of the system, the control cabinet of the system adopts independent 220V AC mains power supply, and at the same time, the control cabinet is equipped with uninterruptible power supply (UPS), which is used to provide power supply to battery management system of each cluster of batteries to ensure that in case of power supply problem of any single unit, the normal management and monitoring of the system will not be affected by the other units. It ensures that in case of power supply problem of any single unit, the normal management and monitoring of other units will not be affected, thus ensuring the stability and safety of the system. In the event of an abnormal situation, such as utility power failure, the UPS in the system can ensure that the management and control system continue to operate safely and leave enough time for the management personnel to carry out subsequent processing.

Battery energy storage systems are capable of automated operation with a high degree of operational status visualisation. Each part of the battery energy storage system adopts automation control technology, which is able to run automatically without human intervention according to the set program. The status detection and alarm information of each part will be recorded automatically and transmitted to the EMS master station through the communication interface in time. The system is equipped with a control cabinet, which is equipped with a battery stack operation monitoring computer, which can display the specific battery operation status of the system composed of various battery cabinets, including the charging and discharging currents, voltages, SOCs and related warning information of each battery cabinet, and can store the data according to the needs. At the same time in each battery cabinet to install the battery cabinet work indicator lights to indicate the working status of the battery cabinet.

The various components of the DC circuit of the energy storage system, under the synergy of the BMU and BCU, can detect failures or abnormal operation in time, and can automatically protect the safety of the battery. It can communicate with PCS controller to realize visual man-machine interaction and real-time display of various operating parameters of the converter. All running data can be stored on demand, or automatically stored daily with date and time as file name, while the data can be synchronized and sent to the remote client through the Ethernet interface.

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## 2. Fire Suppression System (FFS)

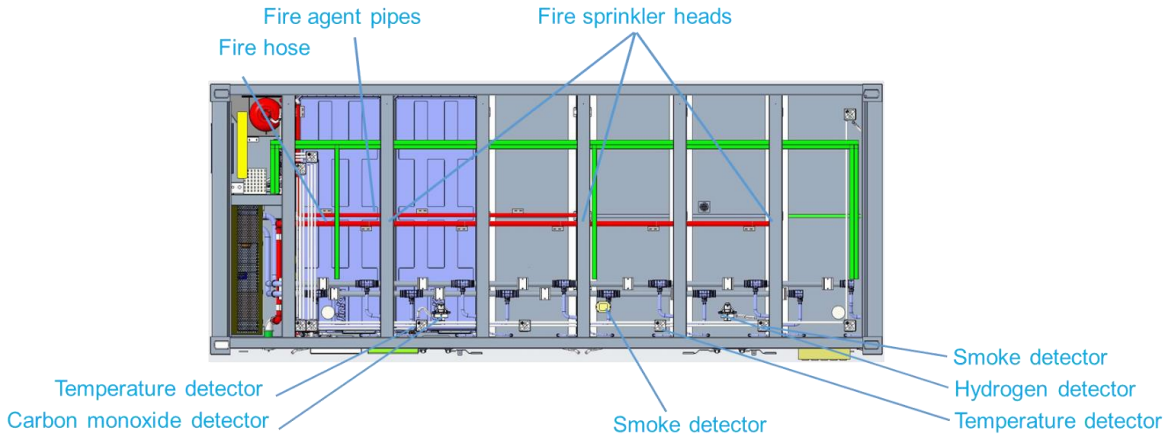



Figure 6: Layout Plan of Fire Suppression System for a Standard SunTera 20HQ Container

The fire suppression system within the battery container is designed to ensure utmost safety and minimize the risk of fire incidents. It comprises three key components: an automatic fire alarm system, an automatic fire extinguishing system utilizing FK5112 gas, and a fire water sprinkler system.

The fire warning system incorporates control panels, detectors, emergency stop buttons or manual/automatic transfer switches, and alarms. By employing temperature detectors, smoke detectors, explosion-proof hydrogen gas detectors, and carbon monoxide gas detectors in coordination with NFPA 72, the system promptly identifies the occurrence of thermal runaway within the container.

The automatic fire extinguishing system employs perfluorohexanone (FK5112) gas for highly effective firefighting. Its chemical storage and spraying equipment include FK5112 gas cylinders, solenoid valves, release pipelines, pressure switches, and nozzles. This system swiftly and efficiently suppresses any potential fire incidents within the battery container.

To further enhance safety measures, the water sprinkler system is strategically implemented at the cabin level. It operates as a manual-controlled independent firefighting system, equipped with standard fire water interfaces located outside the battery compartment. These interfaces allow specialists to connect the container to water sources such as fire hydrants and fire engines, facilitating immediate water spray and firefighting actions.

The optional water sprinkler system adopts container-level spraying. It is a manual-controlled independent fire suppression system. Standard fire water nozzles are designed outside the battery container. Licensed fire experts can connect the container with water sources such as fire hydrants and fire engines through this nozzle to flood the container with water. According to NFPA 13, NFPA 15 and NFPA855, there are 3 water fire sprinklers designed at the top side of container.

The fire control panel is the central controller of the fire-fighting command and information processing. It provides four control modes: automatic, manual, emergency manual, and emergency start/stop.

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Figure 7: Fire Control Panel

Fire control signals are divided into primary and secondary alarm signals, which are then issued to corresponding controlled devices. The first level signal triggers the alarm, while the second level signal triggers the audible and visual alarm and activates the gas fire extinguishing cylinder. After a 30-second delay, the solenoid valve is released, and the cylinder head valve is activated to extinguish the fire. The alarm controller receives the feedback signal from the pressure sensor and turns on the gas discharge indicator on the panel. When the alarm controller is in manual mode, it only sends out an alarm signal but doesn't output an action signal. After the fire alarm is confirmed by the on-duty person, they can push the emergency start-stop button to start the system and spray fire extinguishing agent.

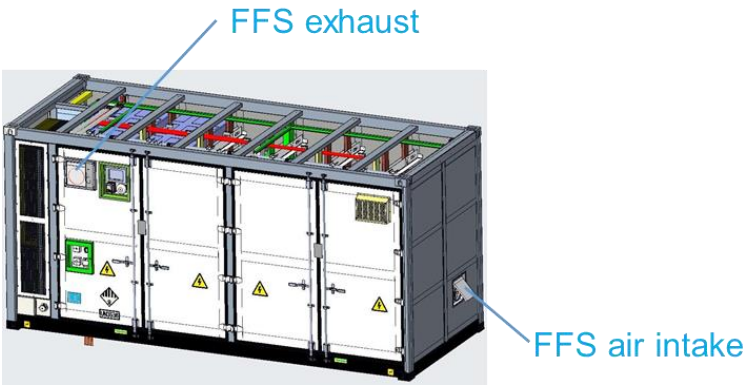



Figure 8: Combustible Gas Ventilation and Exhaust

The fire system still contains combustible gas detection system and ventilation exhaust system. When the concentration of H2, CO gas in the protection area reaches the alarm value, the detection system will work, and send the control signal to the ventilation exhaust system and the fire control panel to start the fan and the intake window, exhausting the air forced and it will link with fire control panel to alarm and activate other fire extinguishing measures.

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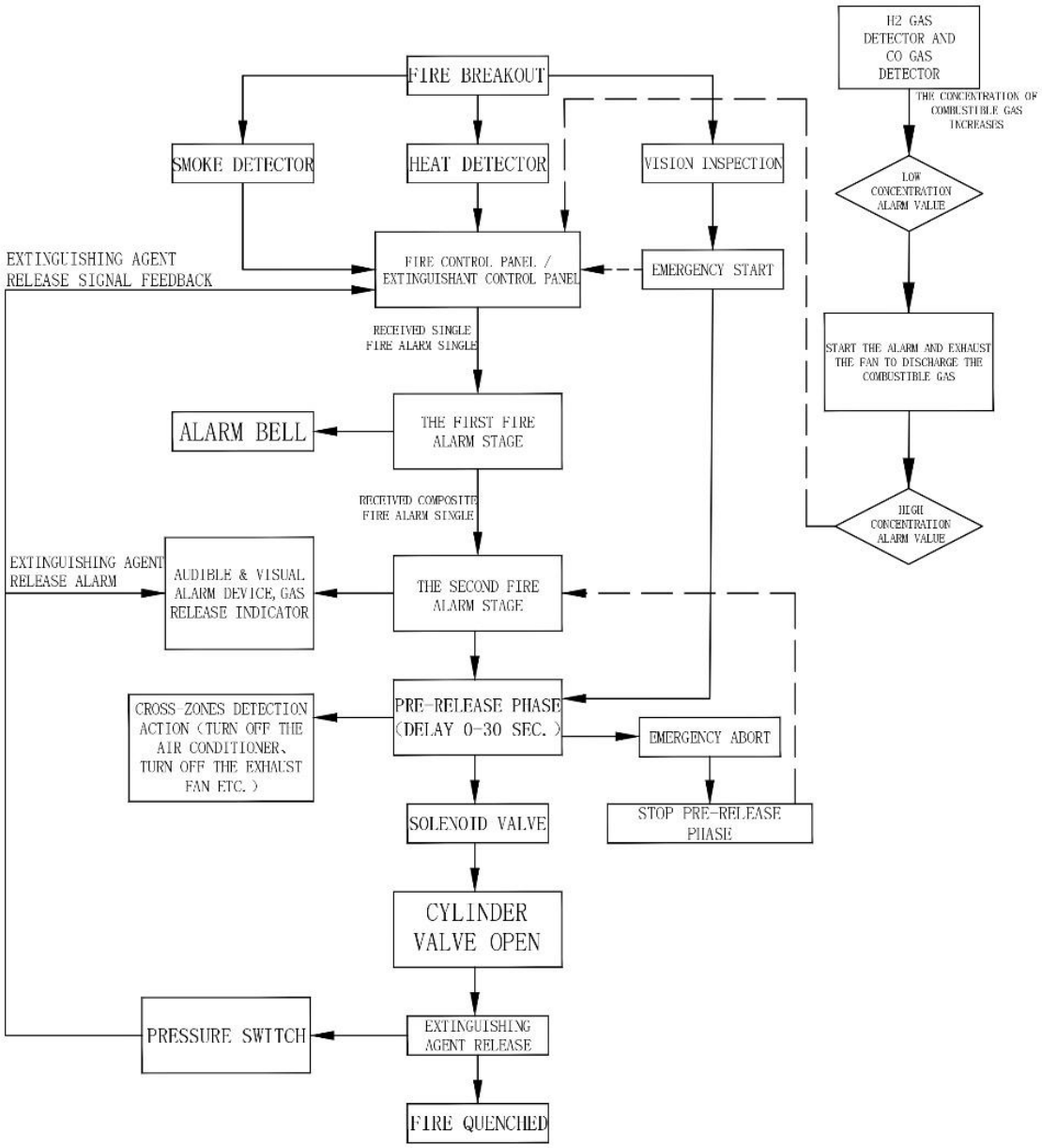



Figure 9: Fire Suppression System Operation Flow Chart

## 3. Liquid Cooling System




Figure 10: Cooling System of Energy Storage System

The thermal management strategy for this system consists of two primary components: thermal management for the battery compartment and thermal management for the electrical room.

For the battery compartment, a highly efficient liquid cooling system is implemented, comprising a liquid cooling host, a liquid pipeline, and a battery liquid cold plate. This advanced system employs a multi-mode refined thermal management control strategy to ensure precise regulation of system temperature and temperature differences, ultimately enhancing system consistency and longevity. The internal flow channel of the battery liquid cooling plate is analyzed through full working condition heat flow simulations, resulting in a non-uniform flow channel design that guarantees uniform flow field distribution and eliminates fluid dead zones. The liquid-cooling host is custom-designed with rated cooling capacity of 40kW, maintaining the battery temperature in an operation temperature range of 15° C to 38° C with a maximum temperature difference of 5° C (adjustable).

In contrast, the thermal management system for the electrical room relies on door-mounted industrial air conditioners, which are specifically chosen to maintain a reasonable temperature and humidity working environment for each electrical component housed within the room.

This comprehensive and well-optimized thermal management approach ensures efficient cooling and temperature control throughout the energy storage system, significantly improving its performance, reliability, and overall operational efficiency.

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## 4. System and Auxiliary Equipment

### Container Enclosure

The product adopts an efficient and integrated design, combining an energy storage battery rack with a battery management system, housed within a 20HQ container.

This container accommodates essential components such as the battery rack, integrated cabinet, firefighting system, lighting system, and liquid cooling system, ensuring a cohesive and compact setup. The container's external dimensions are thoughtfully designed to match those of a standard 20HQ high-capacity container, ensuring convenient and seamless transportation. Additionally, the product features an IP protection degree of IP55, providing robust protection against dust and water ingress.

Considering the practical aspects of construction, commissioning, maintenance, and overhauls of the battery storage system, a double-column container arrangement is implemented. This arrangement optimizes daily maintenance and management procedures, ensuring ease of access and efficient operation throughout the system's life cycle.

The container detail arrangement is shown in the following figure:

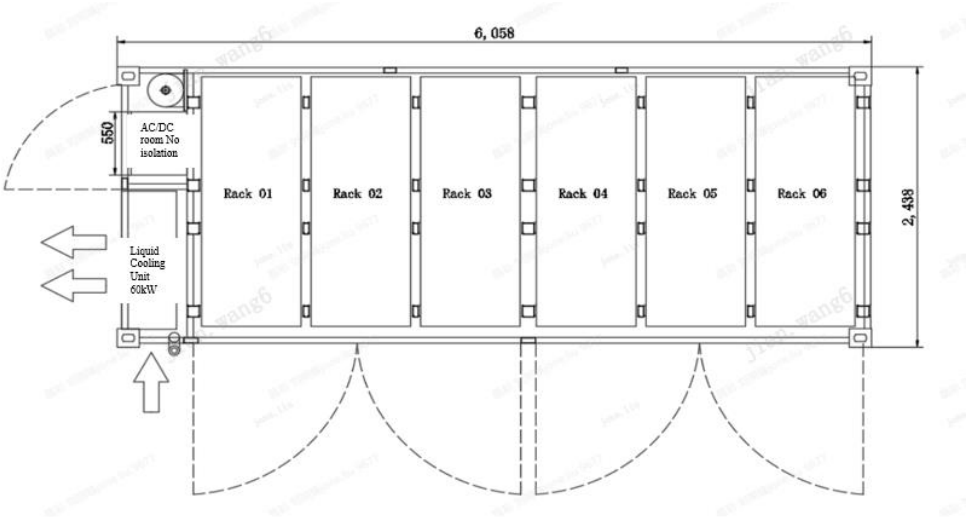



Figure 11: Container Layout Diagram

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Figure 12: 20HQ Container Left View

Table 5: SunTera 5MWh Liquid Cooling Energy Storage Container Parameters

| **Item** | | **Parameter** |
|---|---|---|
| Cooling method | | Liquid cooling |
| Average noise | | <80dB(A) |
| IP Protection grade | | IP55 |
| Anti-corrosion grade | | C3M (EN ISO 12944) |
| Dimension (L×W×H) | | 6058×2438×2896mm |
| Weight | | < 42000kg |
| Storage environment | Temperature | -20~45℃ (1 month)<br>0~35℃ (6months)/80%SOC |
| | Humidity | 0%~95% RH, non-condensing |
| Fire detection system | Configuration | Combustible gas detector, smoke sensor, temperature sensor, + water+ gas fire suppression |
| Working environment | Temperature range | -20~55℃ (Derating above 50℃) |
| | Humidity range | ≤100%RH，non-condensing |
| | Altitude | ≤2000m |

Containers are designed with multiple functions for anti-corrosion, fire prevention, waterproofing, dust and sand proof, and shock proofing, etc.

Fire prevention: The container shell and internal and external materials use flame-retardant materials to ensure safety. The inner wall adopts more than 50mm thick rock wool sandwich panel as the heat insulation layer, and the rock wool fire prevention grade of the sandwich panel is Grade A, Fire resistance is not less than 1h.

Waterproof: The overall protection level of the container is IP5. The parts where the door panel is connected to the outside world are protected by sealing strips to prevent dust or rain from entering the inside of the container when it encounters wind, sand or rainy weather outdoors.

Dust and sand proof: The air inlet and outlet of the container are equipped with standard ventilation filters, which can effectively prevent dust from entering the container when encountering strong wind and sand blowing electric.

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Shockproof: The mechanical strength of containers and their internal equipment can meet the requirements of No deformation and functional abnormalities under transportation and earthquake conditions and can operate normally after vibration.

### Container wiring design

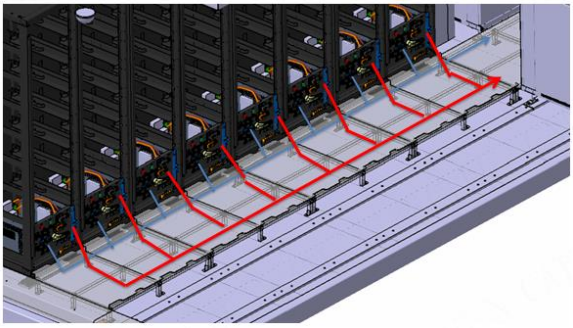


Figure 13: Schematic Layout of Power and Signal Lines inside the Container

The container in the cabinet power cable routing with secondary control wires, communication lines are placed separately and orderly, to avoid interference.

The containerised electrical cabinet power cable exits from the bottom of the battery cabinet and connects to the DC circuit breaker in the sink cabinet through the bottom wireway inside the container. As shown in the figure below.

### Electrical system

The system adopts an integrated cabinet solution with AC and DC integrated design, effectively optimising space utilization. The integrated cabinet serves multiple essential functions, as outlined below:

1) DC Convergence: Within the container, 10~12 racks of batteries are seamlessly converged, facilitating centralized external output, and offering a unified external interface for easy external wiring. To ensure convenience during maintenance, the convergence output is equipped with an isolation switch, while a fuse provides short circuit protection.

2) AC Power Distribution: The power distribution system efficiently supplies power to auxiliary facilities such as the liquid cooling system, Battery Management System (BMS), firefighting system, and communication system within the container. The system provides an external three-phase five-wire interface, which can be readily connected to the distribution transformer or low-voltage switchgear at the site.

3) Communication and Control: The integrated cabinet seamlessly communicates with the BMS, liquid cooling system, firefighting system, and other auxiliary systems. It diligently monitors the working status of each subsystem within the container, meticulously summarizes and processes the data from each subsystem, and efficiently uploads the information. Moreover, the system is equipped with multi-level fault alarm capabilities, ensuring prompt and accurate identification of any potential issues.

4) UPS (Uninterruptible Power Supply): The solution incorporates a UPS system to ensure uninterrupted functionality of the control system, signal system, and fire protection system in case of a power failure.

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Figure 14: The Integrated Cabinet Appearance

This integrated approach enhances the overall efficiency and reliability of the container-based energy storage system. The design features of integrated Cabinet wiring are as follows:

1) AC and DC partition layout in the integrated Cabinet: high and low voltage and signal lines go through different trucking respectively to ensure separate laying of each circuit and reduce electromagnetic interference.

2) Separate laying of secondary circuits of strong current and weak current: each terminal is connected with only one wire, Minimize electromagnetic interference.

3) Design isolation switch: ensure that the system can be disconnected step by step during overhaul to avoid disoperation.

4) Clear identification: all operable parts are marked for easy maintenance and debugging. The equipment panel is marked with plane identification mark and function mark, Easy to identify.

### Auxiliary Systems

The battery container is equipped with auxiliary equipment, such as video monitoring, temperature and humidity sensors, and water sensors. The video monitoring equipment is equipped with a video monitoring host with AC power supply of 240V provided by an AC cabinet. Real-time monitoring of the interior is achieved through video monitoring. Communication between the SCU and the video monitoring equipment is achieved through Ethernet.

The temperature and humidity sensors are designed to monitor the temperature and humidity inside the container. The power supply for these sensors is provided by an AC cabinet and is DC power at 24V. Communication between the sensors and the SCU is achieved through RS485.

The water sensor is used to prevent water from flooding the container. The power supply for this sensor is also provided by an AC cabinet and is DC power at 24V. The sensor outputs a set of signals to the DI/O module in the AC cabinet.

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## 6. Project Details and Capacity Calculation

### Section Introduction

This section summarises the project information, including the name, location, system configuration according to each site (12 sites in total) and proposed Jinko's scope of supply / scope of work.

The detailed BESS capacity calculation was conducted for each project. The special consideration or limitation such as BESS unevenly distribution, separate control requirement or capacity were included based on each project.

### Calculation Prerequisites

The system configuration reflects the initial nameplate capacity of the project. Given 12 sites were specified with the generally same design requirement, below are the prerequisites for calculating the energy storage degradation capacity of this project. sites

Operation Parameters for Degradation Calculation

1) Number of Equivalent Cycle: 1 cycle per day, 365 cycles per year.
2) Charge P Rate and Discharge P Rate: 0.5P (constant power rate).
3) Battery Depth of Discharge (DOD): 95%.
4) Battery Internal Operating Temperature: 25±5℃.
5) Site Ambient Conditions: Maximum ambient temp as per Section 1.4. (power derating after +45℃)
6) Guaranteed system availability: 95% (BESS 97%, MVPS 98%) - TBC
7) Average SOC: ≤ 50%

### Time Between Dispatch and Commissioning

The time between dispatching the first batch of battery containers and SAT is 6 months, and the average storage temperature during this period is not higher than 45℃. EPC is responsible for managing this schedule within 6 months.

### Data used for the calculation

Efficiency Factors for POC Energy and RTE Calculation are listed as below:

Table 6: Calculation Data

| Item | Efficiency | Comments |
|---|---|---|
| DC Cable Efficiency between Battery and PCS | 99.28% | 0.72% loss specified |
| PCS Efficiency | 98.55% | 1.45% loss specified |
| Cable Efficiency at Low Voltage | 99.40% | 0.6% loss specified |
| LVMV Transformer Efficiency | 99.00% | 1% loss specified |
| MV cable | 99.60% | 0.4% loss specified |
| MV/HV Transformer efficiency | 99.60% | 0.4% loss specified |
| PCS efficiency (further consideration of Aux) | 99.80% | 0.2% loss specified |
| **One-way efficiency** | **95.32%** | |

**Auxiliary Consumption**

The RTE calculation can be achieved both including and not including the auxiliary energy consumption for the BESSs and the PCS-MV Transformer stations. The required auxiliary is 55kVA@400V for each battery container while the average operation auxiliary consumption is estimated to be 28.2kW under the site environment (@0.5P @+45℃). The auxiliary consumption under standby is estimated to be 6.13kW @+45℃. The auxiliary power supply is supposed to be provided by EPC.

**Note:** The following calculation results of AC usable capacity takes account of the system efficiency, BESS auxiliary consumption for 2 hours discharge, continuous peak auxiliary consumption of PCS and MVPS for 2 hours discharge.

**DC Power Settings**

The DC power design of Jinko SunTera 5MWh product family is 0.5P with 110% long-term overloading capability (<120min). It enables the battery to discharge at 0.5P continuous power rate and can reach 0.55P when the system requires. Following is the DC power rate to the BESS with different capacity BESS.

| BESS | Continuous Discharge Power (0.5P) | 110% Overloading Power |
|---|---|---|
| JKE-5015K-2H-LAA | 2.50 MW | 2.75 MW |
| JKE-4597K-2H-LAA | 2.29 MW | 2.52 MW |
| JKE-4179K-2H-LAA | 2.09 MW | 2.30 MW |

The BESS configuration of each following project was considered with DC discharge capability where all the actual discharge pwoer shall be under 0.5P of BESS. Thus, Jinko suggests that PCS maximum discharge power be set as PCS rated power or BESS 0.5P value which is smaller. Should any site require DC power from the battery higher than 0.5P, please contact Jinko Technical Solution Team for the assessment.

**Calculation Results**

The presented data above provides essential technical details and considerations for the degradation calculation, time management, and efficiency factors in the Battery Energy Storage System (BESS) project. The system configuration and degradation are outlined in the table below.

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## Project 1 – Corowa

### Project information

| Name of the project: Corowa (GPS has been complete) |
|---|
| **Location:** Corowa, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10℃~+45℃ |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, AC coupled BESS to the existing solar farm |
| **Requirement of usable power @POC @COD:** 12MW |
| **Requirement of usable capacity @POC @COD:** 24MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** Ingeteam Ingecon Sun Storage 3930TL HV C630 |
| **PCS QTY:** 6 units |
| **BESS Model:** JKE-5015K-2H-LAA |
| **BESS QTY:** 6 units |

### SLD of System Configuration

Detailed system configuration is shown in following diagram:

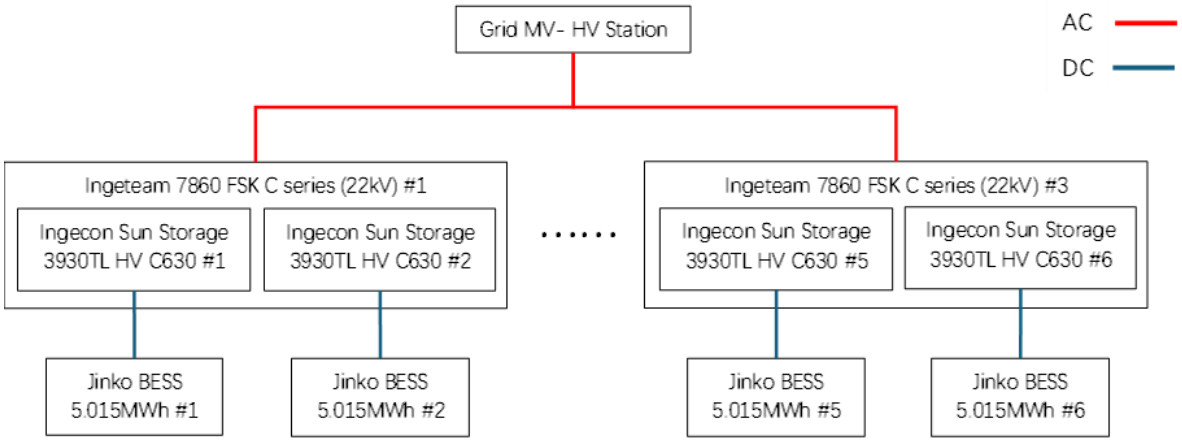



Figure 15: Corowa Configuration Diagram of 17.68MVA/30.09MWh

**Project 1 - Corowa**

## Jinko's Scope of Supply

Table 7: Corowa Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-5015-2H-LAA | 6 | C4 coating |
| PCS | Ingeteam | Sun Storage 3930TL HV C630 | 6 | 2946kVA @ 30℃ |
| Transformer skid | Ingeteam | 7860 FSK C series | 3 | 22kV (24kV in spec.) |
| PPC | Ingeteam | Plant Controller | 1 | QTY to be further clarified |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Corowa AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 6 x JinkoSolar SunTera battery storage units
- 6 x Ingeteam PCS and relevant transformer skid, PPC

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Project 1 - Corowa

## Project 1 – Corowa BESS Capacity Calculation

Table 8: Corowa Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 30.09 | 28.59 | 27.30 | 26.70 |
| FAT to COD in 4 months | **97.00%** | 29.19 | 27.73 | **26.48** | **25.88** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 28.40 | 26.17 | 24.99 | 24.40 |
| 2 | 91.45% | 27.52 | 25.36 | 24.22 | 23.62 |
| 3 | 89.07% | 26.80 | 24.70 | 23.59 | 22.99 |
| 4 | 87.29% | 26.27 | 24.20 | 23.12 | 22.52 |
| 5 | 85.82% | 25.82 | 23.80 | 22.73 | 22.13 |
| 6 | 84.10% | 25.31 | 23.32 | 22.27 | 21.68 |
| 7 | 82.66% | 24.87 | 22.92 | 21.89 | 21.29 |
| 8 | 81.22% | 24.44 | 22.52 | 21.51 | 20.91 |
| 9 | 79.81% | 24.01 | 22.13 | 21.14 | 20.54 |
| 10 | 78.30% | 23.56 | 21.71 | 20.74 | 20.14 |
| 11 | 77.00% | 23.17 | 21.35 | 20.39 | 19.79 |
| 12 | 75.66% | 22.77 | 20.98 | 20.04 | 19.44 |
| 13 | 74.30% | 22.36 | 20.60 | 19.68 | 19.08 |
| 14 | 72.94% | 21.95 | 20.22 | 19.32 | 18.72 |
| 15 | 71.59% | 21.54 | 19.85 | 18.96 | 18.36 |
| 16 | 70.23% | 21.13 | 19.47 | 18.60 | 18.00 |
| 17 | 68.92% | 20.74 | 19.11 | 18.25 | 17.65 |
| 18 | 67.64% | 20.35 | 18.76 | 17.91 | 17.31 |
| 19 | 66.36% | 19.97 | 18.40 | 17.57 | 16.98 |
| 20 | 65.10% | 19.59 | 18.05 | 17.24 | 16.64 |

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## Project 2 – Dennman

Project information

| Name of the project: Dennman |
|---|
| **Location:** Dennman, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, BESS only |
| **Requirement of usable power @POC @COD:** 1600MW |
| **Requirement of usable capacity @POC @COD:** 3200MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** SMA Sunny Central Storage SCS 4600 UP |
| **PCS QTY:** 470 units |
| **BESS Model:** JKE-4179K-2H-LAA |
| **BESS QTY:** 940 units |

Detailed system configuration is shown in following diagram:

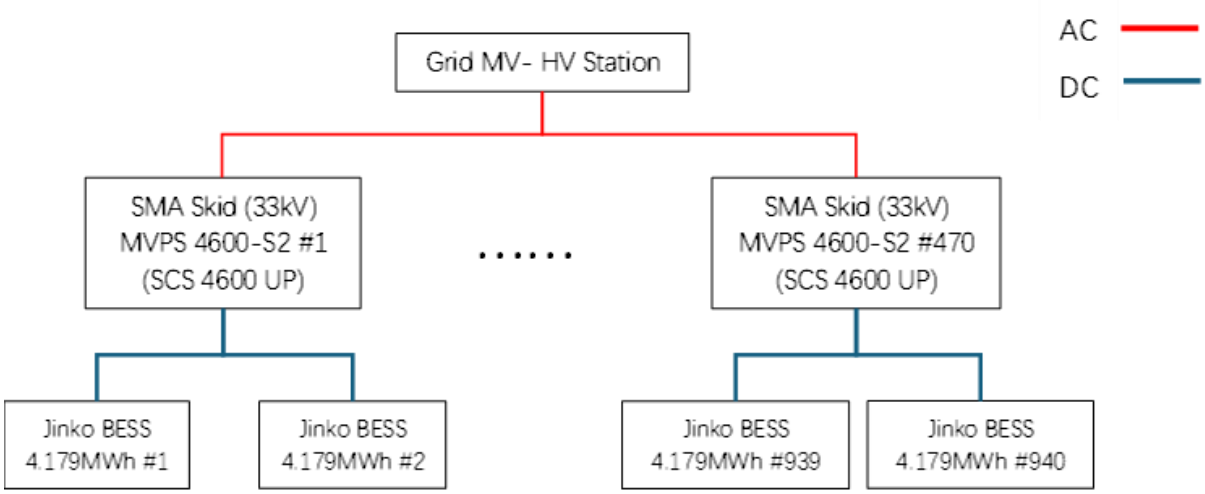



Figure 16: Dennman Configuration Diagram of 2.162GVA/3.938GWh

**Project 2 - Dennman**

## Jinko's Scope of Supply

Table 9: Dennman Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4179-2H-LAA | 940 | C4 coating |
| PCS | Ingeteam | SCS 4600 UP | 470 | |
| Transformer skid | Ingeteam | MVPS 4600-S2 | 470 | 33kV |
| PPM | Ingeteam | Hybrid Controller | 15 | Minimum QTY |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Dennman BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 940 x JinkoSolar SunTera battery storage units
- 470 x SMA PCS and relevant transformer skid, PPC

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**Project 2 - Dennman**

## Project 2 – Dennman BESS Capacity Calculation

Table 10: Dennman Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 95.00% | 3928.42 | 3564.51 | 3477.37 |
| FAT to COD in 4 months | **97.00%** | 95.00% | 3810.56 | **3457.57** | **3370.44** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 95.00% | 3707.44 | 3263.08 | 3175.94 |
| 2 | 91.45% | 95.00% | 3592.53 | 3161.95 | 3074.81 |
| 3 | 89.07% | 95.00% | 3498.87 | 3079.51 | 2992.37 |
| 4 | 87.29% | 95.00% | 3429.22 | 3018.21 | 2931.07 |
| 5 | 85.82% | 95.00% | 3371.42 | 2967.34 | 2880.20 |
| 6 | 84.10% | 95.00% | 3303.99 | 2907.99 | 2820.85 |
| 7 | 82.66% | 95.00% | 3247.36 | 2858.14 | 2771.01 |
| 8 | 81.22% | 95.00% | 3190.63 | 2808.22 | 2721.08 |
| 9 | 79.81% | 95.00% | 3135.18 | 2759.42 | 2672.28 |
| 10 | 78.30% | 95.00% | 3075.85 | 2707.19 | 2620.05 |
| 11 | 77.00% | 95.00% | 3024.72 | 2662.19 | 2575.06 |
| 12 | 75.66% | 95.00% | 2972.37 | 2616.11 | 2528.98 |
| 13 | 74.30% | 95.00% | 2918.93 | 2569.08 | 2481.94 |
| 14 | 72.94% | 95.00% | 2865.33 | 2521.91 | 2434.77 |
| 15 | 71.59% | 95.00% | 2812.19 | 2475.14 | 2388.00 |
| 16 | 70.23% | 95.00% | 2758.99 | 2428.31 | 2341.17 |
| 17 | 68.92% | 95.00% | 2707.57 | 2383.06 | 2295.92 |
| 18 | 67.64% | 95.00% | 2657.18 | 2338.70 | 2251.57 |
| 19 | 66.36% | 95.00% | 2606.82 | 2294.38 | 2207.24 |
| 20 | 65.10% | 95.00% | 2557.20 | 2250.71 | 2163.57 |

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## Project 3 – Junee

### Project information

| Name of the project: Junee (same to Project 1 – Corowa - GPS has been completed) |
|---|
| **Location:** Junee, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, AC coupled BESS to the existing solar farm |
| **Requirement of usable power @POC @COD:** 12MW |
| **Requirement of usable capacity @POC @COD:** 24MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** Ingeteam Ingecon Sun Storage 3930TL HV C630 |
| **PCS QTY:** 6 units |
| **BESS Model:** JKE-5015K-2H-LAA |
| **BESS QTY:** 6 units |

### SLD of System Configuration

Detailed system configuration is shown in following diagram:

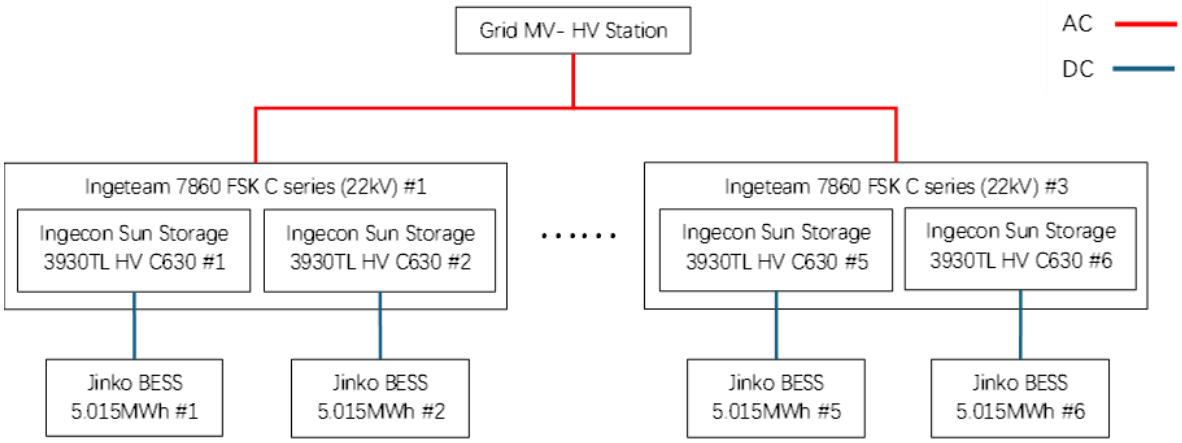



Figure 17: Junee Configuration Diagram of 17.68MVA/30.09MWh

**Project 3 - Junee**

## Jinko's Scope of Supply

Table 11: Junee Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-5015-2H-LAA | 6 | C4 coating |
| PCS | Ingeteam | Sun Storage 3930TL HV C630 | 6 | 2946kVA @ 30℃ |
| Transformer skid | Ingeteam | 7860 FSK C series | 3 | 22kV (24kV in spec.) |
| PPC | Ingeteam | Plant Controller | 1 | QTY to be further clarified |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Junee AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 6 x JinkoSolar SunTera battery storage units
- 6 x Ingeteam PCS and relevant transformer skid, PPC

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**Project 3 - Junee**

## Project 3 – Junee BESS Capacity Calculation

Table 12: Junee Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 95.00% | 30.09 | 27.30 | 26.70 |
| FAT to COD in 4 months | **97.00%** | 95.00% | 29.19 | **26.48** | **25.88** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 95.00% | 28.40 | 24.99 | 24.40 |
| 2 | 91.45% | 95.00% | 27.52 | 24.22 | 23.62 |
| 3 | 89.07% | 95.00% | 26.80 | 23.59 | 22.99 |
| 4 | 87.29% | 95.00% | 26.27 | 23.12 | 22.52 |
| 5 | 85.82% | 95.00% | 25.82 | 22.73 | 22.13 |
| 6 | 84.10% | 95.00% | 25.31 | 22.27 | 21.68 |
| 7 | 82.66% | 95.00% | 24.87 | 21.89 | 21.29 |
| 8 | 81.22% | 95.00% | 24.44 | 21.51 | 20.91 |
| 9 | 79.81% | 95.00% | 24.01 | 21.14 | 20.54 |
| 10 | 78.30% | 95.00% | 23.56 | 20.74 | 20.14 |
| 11 | 77.00% | 95.00% | 23.17 | 20.39 | 19.79 |
| 12 | 75.66% | 95.00% | 22.77 | 20.04 | 19.44 |
| 13 | 74.30% | 95.00% | 22.36 | 19.68 | 19.08 |
| 14 | 72.94% | 95.00% | 21.95 | 19.32 | 18.72 |
| 15 | 71.59% | 95.00% | 21.54 | 18.96 | 18.36 |
| 16 | 70.23% | 95.00% | 21.13 | 18.60 | 18.00 |
| 17 | 68.92% | 95.00% | 20.74 | 18.25 | 17.65 |
| 18 | 67.64% | 95.00% | 20.35 | 17.91 | 17.31 |
| 19 | 66.36% | 95.00% | 19.97 | 17.57 | 16.98 |
| 20 | 65.10% | 95.00% | 19.59 | 17.24 | 16.64 |

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## Project 4 – Kingaroy

### Project information

| Name of the project: Kingaroy |
|---|
| **Location:** Kingaroy, QLD, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, AC coupled BESS to the existing solar farm |
| **Requirement of usable power @POC @COD:** 20MW |
| **Requirement of usable capacity @POC @COD:** 40MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** Ingeteam Ingecon Sun Storage 3930TL HV C630 |
| **PCS QTY:** 10 units |
| **BESS Model:** JKE-5015K-2H-LAA |
| **BESS QTY:** 10 units |

### SLD of System Configuration

Detailed system configuration is shown in following diagram:

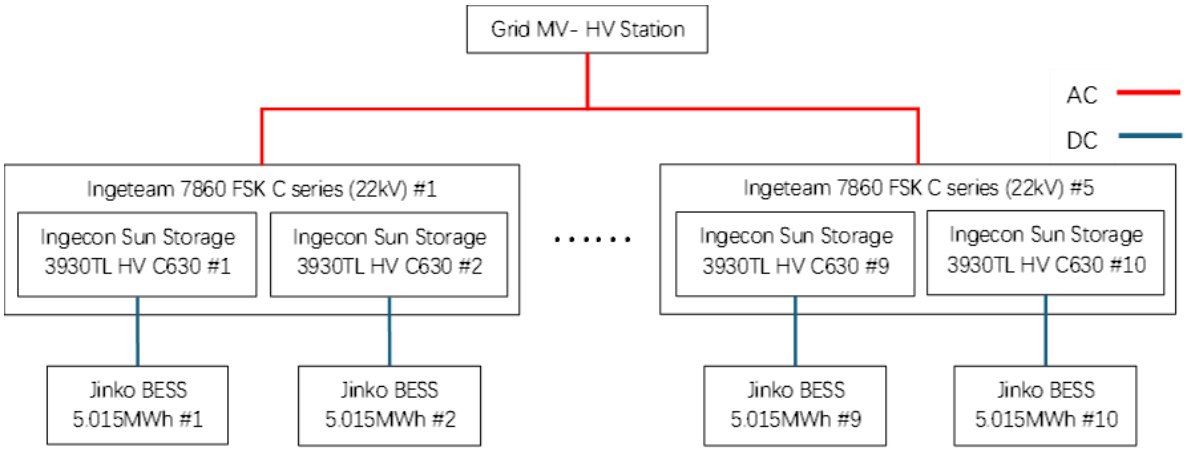



Figure 18: Kingaroy Configuration Diagram of 29.46MVA/50.15MWh

**Project 4 – Kingaroy**

## Jinko's Scope of Supply

Table 13: Kingaroy Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-5015-2H-LAA | 10 | C4 coating |
| PCS | Ingeteam | Sun Storage 3930TL HV C630 | 10 | 2946kVA @ 30℃ |
| Transformer skid | Ingeteam | 7860 FSK C series | 5 | 22kV (24kV in spec.) |
| PPC | Ingeteam | Plant Controller | 1 | QTY to be further clarified |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Kingaroy AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 10 x JinkoSolar SunTera battery storage units
- 10 x Ingeteam PCS and relevant transformer skid, PPC

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## Project 4 – Kingaroy BESS Capacity Calculation

Table 14: Kingaroy Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 50.15 | 47.64 | 45.50 | 44.51 |
| FAT to COD in 4 months | **97.00%** | 48.65 | 46.21 | **44.14** | **43.14** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 47.33 | 43.61 | 41.66 | 40.66 |
| 2 | 91.45% | 45.86 | 42.26 | 40.37 | 39.37 |
| 3 | 89.07% | 44.67 | 41.16 | 39.31 | 38.31 |
| 4 | 87.29% | 43.78 | 40.34 | 38.53 | 37.53 |
| 5 | 85.82% | 43.04 | 39.66 | 37.88 | 36.88 |
| 6 | 84.10% | 42.18 | 38.87 | 37.12 | 36.13 |
| 7 | 82.66% | 41.46 | 38.20 | 36.49 | 35.49 |
| 8 | 81.22% | 40.73 | 37.53 | 35.85 | 34.85 |
| 9 | 79.81% | 40.02 | 36.88 | 35.23 | 34.23 |
| 10 | 78.30% | 39.27 | 36.18 | 34.56 | 33.56 |
| 11 | 77.00% | 38.61 | 35.58 | 33.99 | 32.99 |
| 12 | 75.66% | 37.95 | 34.97 | 33.40 | 32.40 |
| 13 | 74.30% | 37.26 | 34.34 | 32.80 | 31.80 |
| 14 | 72.94% | 36.58 | 33.71 | 32.19 | 31.20 |
| 15 | 71.59% | 35.90 | 33.08 | 31.60 | 30.60 |
| 16 | 70.23% | 35.22 | 32.46 | 31.00 | 30.00 |
| 17 | 68.92% | 34.56 | 31.85 | 30.42 | 29.42 |
| 18 | 67.64% | 33.92 | 31.26 | 29.86 | 28.86 |
| 19 | 66.36% | 33.28 | 30.67 | 29.29 | 28.29 |
| 20 | 65.10% | 32.65 | 30.08 | 28.73 | 27.73 |

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## Project 5 – Mavis

Project information

| Name of the project: Mavis |
|---|
| **Location:** Mavis, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10℃~+45℃ |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, BESS only |
| **Requirement of usable power @POC @COD:** 100MW |
| **Requirement of usable capacity @POC @COD:** 200MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** SMA Sunny Central Storage SCS 4600 UP |
| **PCS QTY:** 30 units |
| **BESS Model:** JKE-4179K-2H-LAA |
| **BESS QTY:** 60 units |

Detailed system configuration is shown in following diagram:

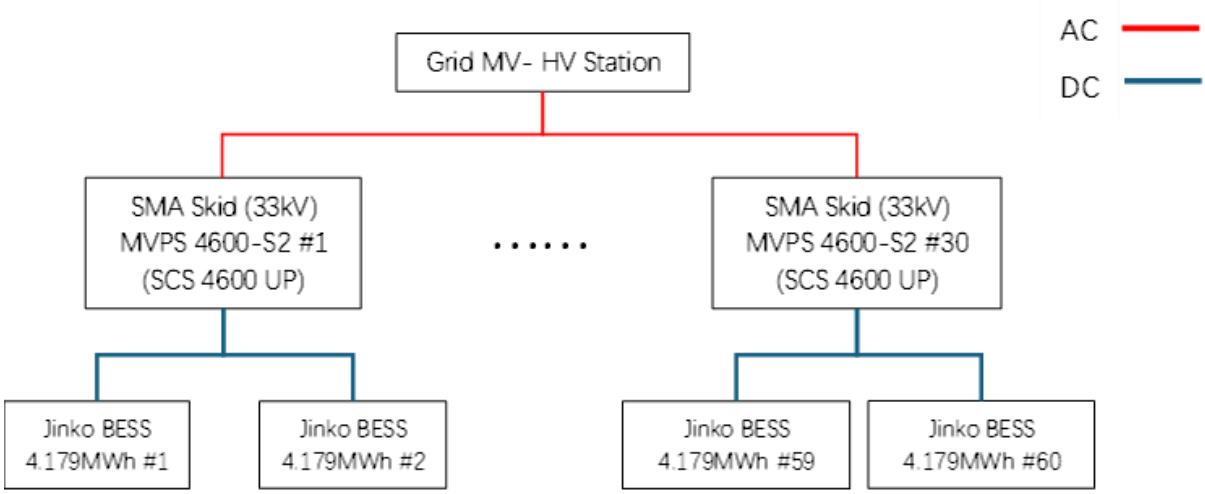



Figure 19: Mavis Configuration Diagram of 138MVA/250.75MWh

**Project 5 –Mavis**

## Jinko's Scope of Supply

Table 15: Mavis Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4179-2H-LAA | 60 | C4 coating |
| PCS | Ingeteam | SCS 4600 UP | 30 | |
| Transformer skid | Ingeteam | MVPS 4600-S2 | 30 | 33kV |
| PPM | Ingeteam | Hybrid Controller | 1 | Minimum QTY |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Mavis AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 60 x JinkoSolar SunTera battery storage units
- 30 x SMA PCS and relevant transformer skid, PPC

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**Project 5 –Mavis**

## Project 5 –Mavis BESS Capacity Calculation

Table 16: Mavis Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 250.75 | 238.21 | 227.52 | 221.96 |
| FAT to COD in 4 months | **97.00%** | 243.23 | 231.07 | **220.70** | **215.13** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 236.65 | 218.07 | 208.28 | 202.72 |
| 2 | 91.45% | 229.31 | 211.31 | 201.83 | 196.26 |
| 3 | 89.07% | 223.33 | 205.80 | 196.56 | 191.00 |
| 4 | 87.29% | 218.89 | 201.70 | 192.65 | 187.09 |
| 5 | 85.82% | 215.20 | 198.30 | 189.40 | 183.84 |
| 6 | 84.10% | 210.89 | 194.34 | 185.62 | 180.05 |
| 7 | 82.66% | 207.28 | 191.01 | 182.43 | 176.87 |
| 8 | 81.22% | 203.66 | 187.67 | 179.25 | 173.69 |
| 9 | 79.81% | 200.12 | 184.41 | 176.13 | 170.57 |
| 10 | 78.30% | 196.33 | 180.92 | 172.80 | 167.24 |
| 11 | 77.00% | 193.07 | 177.91 | 169.93 | 164.37 |
| 12 | 75.66% | 189.73 | 174.83 | 166.99 | 161.42 |
| 13 | 74.30% | 186.31 | 171.69 | 163.98 | 158.42 |
| 14 | 72.94% | 182.89 | 168.54 | 160.97 | 155.41 |
| 15 | 71.59% | 179.50 | 165.41 | 157.99 | 152.43 |
| 16 | 70.23% | 176.11 | 162.28 | 155.00 | 149.44 |
| 17 | 68.92% | 172.82 | 159.26 | 152.11 | 146.55 |
| 18 | 67.64% | 169.61 | 156.29 | 149.28 | 143.72 |
| 19 | 66.36% | 166.39 | 153.33 | 146.45 | 140.89 |
| 20 | 65.10% | 163.23 | 150.41 | 143.66 | 138.10 |

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## Project 6 & 7 – Moama 1 & Moama2

Project information

| Name of the project: Moama 1 & Moama 2 |
|---|
| **Location:** Moama, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, BESS only |
| **Requirement of usable power @POC @COD:** 15MW |
| **Requirement of usable capacity @POC @COD:** 30MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** Power Electronics Multi PCSK FP4200K4 |
| **PCS QTY:** 10 units |
| **BESS Model:** JKE-4179K-2H-LAA |
| **BESS QTY:** 9 units |

Detailed system configuration is shown in following diagram:

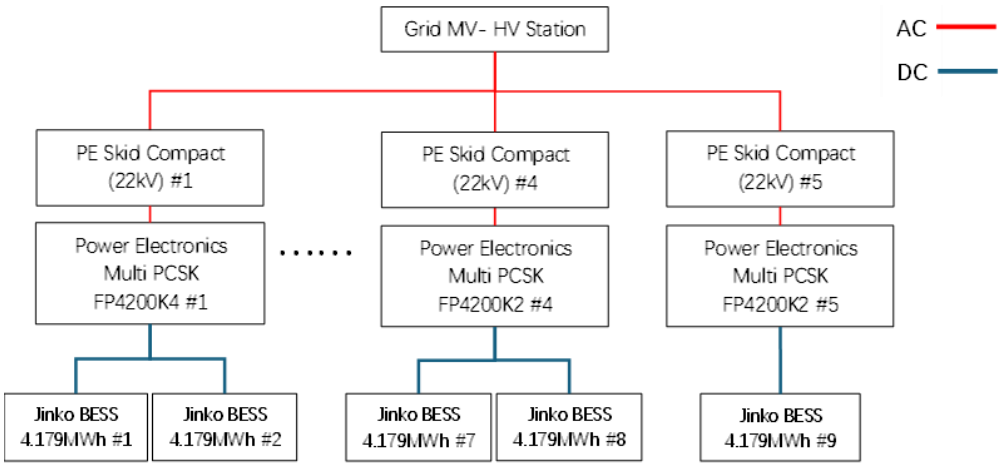



Figure 20: Moama 1 & Moama 2 Configuration Diagram of 21MVA/37.61MWh

### **Note:** Power adjustment is required between different configured groups

According to proposed configuration, 4 PCS are connected with 2 units of 4.179MWh BESS while the 5th PCS is connected to 1 unit of 3.384MWh. Therefore, the capacity ratio between different configured AC blocks is 2:1. Thus, the control scheme is suggested that the PSC #5 should always operate at 50% of the others (PCS #1 ~#4).

**For example, when PCS #1 ~#4 were set 4200kVA as the rated operating power, PCS #5 must be set at 2100kVA. Then the total rated power is 18.9MVA, equivalent to 4.5 PCS units.**

**Project 6 & 7 – Moura 1 & Moama2**

The following calculation with PCS power rate at +50 degC (critical case) is to verify the AC power capability.

**3.9MVA * 0.92 power factor * 97.42% efficiency * 4.5 units =15.72MW > Required 15MW,**

where 97.42% is the efficiency specified from PCS output to PoC.

Therefore, 5 units of FP4200K shall cover the required AC power. One more container can always be the option adding to the 5th PCS to eliminate the concern of power rate.

## Jinko's Scope of Supply

Table 17: Moama 1 & Moama 2 Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4179-2H-LAA | 9 | C4 coating |
| PCS | PE | FP4200K4 | 5 | |
| Transformer skid | PE | Single Skid Compact | 5 | 22kV |
| PPC | PE | PPC Pro | 1 | Minimum QTY |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Moura 1 and Moura 2 AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 9 x JinkoSolar SunTera battery storage units
- 10 x Power Electronics PCS and relevant transformer skid, PPC

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## Project 6 & 7 – Moama 1 & Moama 2 BESS Capacity Calculation

Table 18: Moama 1 & Moama 2 Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 37.61 | 35.73 | 34.13 | 33.32 |
| FAT to COD in 4 months | **97.00%** | 36.48 | 34.66 | **33.10** | **32.29** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 35.57 | 32.78 | 31.31 | 30.49 |
| 2 | 91.45% | 34.50 | 31.79 | 30.37 | 29.56 |
| 3 | 89.07% | 33.67 | 31.03 | 29.63 | 28.82 |
| 4 | 87.29% | 33.00 | 30.41 | 29.04 | 28.23 |
| 5 | 85.82% | 32.44 | 29.89 | 28.55 | 27.74 |
| 6 | 84.10% | 31.80 | 29.30 | 27.98 | 27.17 |
| 7 | 82.66% | 31.25 | 28.80 | 27.50 | 26.69 |
| 8 | 81.22% | 30.71 | 28.30 | 27.03 | 26.21 |
| 9 | 79.81% | 30.17 | 27.80 | 26.56 | 25.74 |
| 10 | 78.30% | 29.69 | 27.36 | 26.13 | 25.32 |
| 11 | 77.00% | 29.23 | 26.94 | 25.73 | 24.92 |
| 12 | 75.66% | 28.77 | 26.51 | 25.32 | 24.51 |
| 13 | 74.30% | 28.29 | 26.07 | 24.90 | 24.09 |
| 14 | 72.94% | 27.81 | 25.63 | 24.48 | 23.67 |
| 15 | 71.59% | 27.34 | 25.19 | 24.06 | 23.25 |
| 16 | 70.23% | 26.86 | 24.75 | 23.64 | 22.83 |
| 17 | 68.92% | 26.40 | 24.33 | 23.24 | 22.43 |
| 18 | 67.64% | 25.95 | 23.92 | 22.84 | 22.03 |
| 19 | 66.36% | 25.50 | 23.50 | 22.45 | 21.64 |
| 20 | 65.10% | 25.07 | 23.10 | 22.06 | 21.25 |

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## Project 8 – Moura

Project information

| Name of the project: Moura |
|---|
| **Location:** Moura, QLD, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, BESS only |
| **Requirement of usable power @POC @COD:** 50MW |
| **Requirement of usable capacity @POC @COD:** 100MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** SMA Sunny Central Storage SCS 4600 UP |
| **PCS QTY:** 15 units |
| **BESS Model:** JKE-4179K-2H-LAA |
| **BESS QTY:** 30 units |

Detailed system configuration is shown in following diagram:

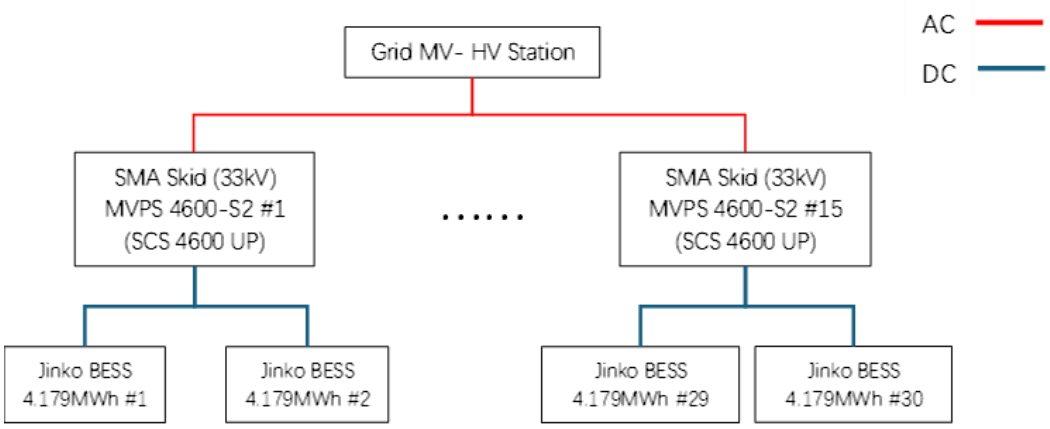



Figure 21: Moura Configuration Diagram of 69MVA/125.38MWh

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**Project 8 – Moura**

## Jinko's Scope of Supply

Table 19: Moura Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4179-2H-LAA | 30 | C4 coating |
| PCS | Ingeteam | SCS 4600 UP | 15 | |
| Transformer skid | Ingeteam | MVPS 4600-S2 | 15 | 33kV |
| PPM | Ingeteam | Hybrid Controller | 1 | Minimum QTY |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Moura BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 30 x JinkoSolar SunTera battery storage units
- 15 x SMA PCS and relevant transformer skid, PPC

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Project 8 – Moura

## Project 8 – Moura BESS Capacity Calculation

Table 20: Moura Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 125.38 | 119.11 | 113.76 | 110.98 |
| FAT to COD in 4 months | **97.00%** | 121.61 | 115.53 | **110.35** | **107.57** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 118.32 | 109.03 | 104.14 | 101.36 |
| 2 | 91.45% | 114.66 | 105.65 | 100.91 | 98.13 |
| 3 | 89.07% | 111.67 | 102.90 | 98.28 | 95.50 |
| 4 | 87.29% | 109.44 | 100.85 | 96.33 | 93.54 |
| 5 | 85.82% | 107.60 | 99.15 | 94.70 | 91.92 |
| 6 | 84.10% | 105.45 | 97.17 | 92.81 | 90.03 |
| 7 | 82.66% | 103.64 | 95.50 | 91.22 | 88.44 |
| 8 | 81.22% | 101.83 | 93.84 | 89.62 | 86.84 |
| 9 | 79.81% | 100.06 | 92.20 | 88.07 | 85.29 |
| 10 | 78.30% | 98.17 | 90.46 | 86.40 | 83.62 |
| 11 | 77.00% | 96.53 | 88.96 | 84.96 | 82.18 |
| 12 | 75.66% | 94.86 | 87.42 | 83.49 | 80.71 |
| 13 | 74.30% | 93.16 | 85.84 | 81.99 | 79.21 |
| 14 | 72.94% | 91.45 | 84.27 | 80.49 | 77.71 |
| 15 | 71.59% | 89.75 | 82.71 | 78.99 | 76.21 |
| 16 | 70.23% | 88.05 | 81.14 | 77.50 | 74.72 |
| 17 | 68.92% | 86.41 | 79.63 | 76.06 | 73.27 |
| 18 | 67.64% | 84.80 | 78.15 | 74.64 | 71.86 |
| 19 | 66.36% | 83.20 | 76.67 | 73.22 | 70.44 |
| 20 | 65.10% | 81.61 | 75.21 | 71.83 | 69.05 |

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## Project 9 – Upper Hunter

Project information

| Name of the project: Upper Hunter |
|---|
| **Location:** Upper Hunter, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, BESS only |
| **Requirement of usable power @POC @COD:** 30MW |
| **Requirement of usable capacity @POC @COD:** 60MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** SMA Sunny Central Storage SCS 4600 UP |
| **PCS QTY:** 10 units (9 units are proposed for evaluation) |
| **BESS Model:** JKE-4179K-2H-LAA |
| **BESS QTY:** 18 units |

Detailed system configuration is shown in following diagram:

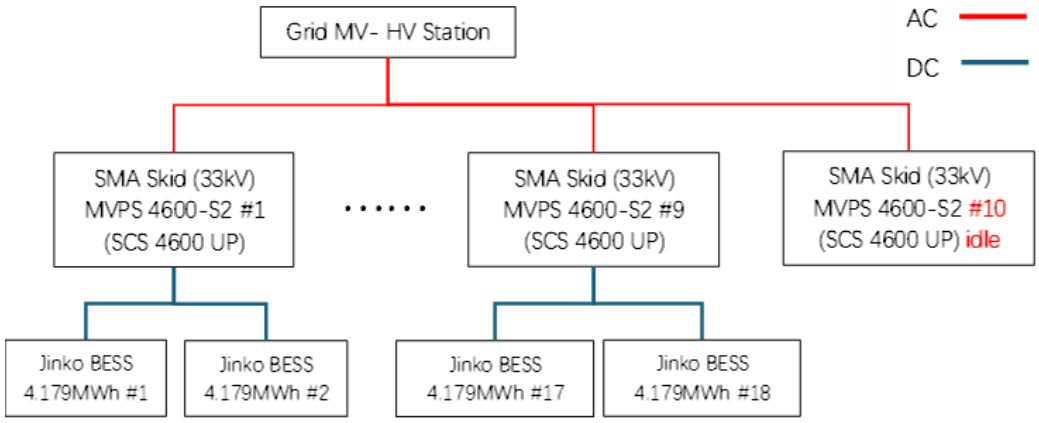



Figure 22: Upper Hunter Configuration Diagram of 46MVA/75.23MWh

**Note:** 9 PCS units were proposed and configured with BESS rather than the original 10 units.

Each of those 9 PCS is connected with two 4.179MWh BESS and the 10th is idle.

The following calculation with PCS power rate at +50 degC (critical case) is to verify the AC power capability.

**4.14MVA * 0.92 power factor * 97.42% efficiency * 9 units =33.39MW > Required 30MW**

where 97.42% is the efficiency specified from PCS output to PoC.

Therefore, 9 units of SCS4600UP shall always cover the required AC power and the 10th PCS is dispensable.

Project 12 – Munna Creek can also be referred to cross-check the "9 units configuration", where the capacity requirement is doubled (60MW/120MWh) from the Upper Hunter (30MW/60MWh). However, the Munna Creek's the system was configured with only 18 units of SMA PCS rather than 20 units.

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**Project 9 – Upper Hunter**

## Jinko's Scope of Supply

Table 21: Upper Hunter Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4179-2H-LAA | 18 | C4 coating |
| PCS | Ingeteam | SCS 4600 UP | 9 | |
| Transformer skid | Ingeteam | MVPS 4600-S2 | 9 | 33kV |
| PPM | Ingeteam | Hybrid Controller | 1 | Minimum QTY |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Upper Hunter AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 18 x JinkoSolar SunTera battery storage units
- 9 x SMA PCS and relevant transformer skid, PPC

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Project 9 – Upper Hunter

## Project 9 – Upper Hunter BESS Capacity Calculation

Table 22: Upper Hunter Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 75.23 | 71.46 | 68.26 | 66.57 |
| FAT to COD in 4 months | **97.00%** | 72.97 | 69.32 | **66.21** | **64.52** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 71.14 | 65.55 | 62.61 | 60.93 |
| 2 | 91.45% | 69.00 | 63.59 | 60.73 | 59.05 |
| 3 | 89.07% | 67.34 | 62.05 | 59.27 | 57.58 |
| 4 | 87.29% | 66.00 | 60.82 | 58.09 | 56.40 |
| 5 | 85.82% | 64.88 | 59.79 | 57.11 | 55.42 |
| 6 | 84.10% | 63.59 | 58.60 | 55.97 | 54.28 |
| 7 | 82.66% | 62.50 | 57.59 | 55.01 | 53.32 |
| 8 | 81.22% | 61.41 | 56.59 | 54.05 | 52.37 |
| 9 | 79.81% | 60.34 | 55.61 | 53.11 | 51.43 |
| 10 | 78.30% | 59.38 | 54.72 | 52.26 | 50.58 |
| 11 | 77.00% | 58.47 | 53.88 | 51.46 | 49.78 |
| 12 | 75.66% | 57.53 | 53.02 | 50.64 | 48.95 |
| 13 | 74.30% | 56.58 | 52.14 | 49.80 | 48.11 |
| 14 | 72.94% | 55.62 | 51.25 | 48.95 | 47.27 |
| 15 | 71.59% | 54.67 | 50.38 | 48.12 | 46.43 |
| 16 | 70.23% | 53.72 | 49.50 | 47.28 | 45.60 |
| 17 | 68.92% | 52.80 | 48.66 | 46.47 | 44.79 |
| 18 | 67.64% | 51.91 | 47.83 | 45.68 | 44.00 |
| 19 | 66.36% | 51.01 | 47.00 | 44.89 | 43.21 |
| 20 | 65.10% | 50.13 | 46.20 | 44.12 | 42.44 |

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## Project 10 – Wagga Wagga

### Project information

| Name of the project: Wagga Wagga (GPS has been complete) |
|---|
| **Location:** Wagga Wagga, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, AC coupled BESS to the existing solar farm |
| **Requirement of usable power @POC @COD:** 15MW |
| **Requirement of usable capacity @POC @COD:** 30MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** Ingeteam Ingecon Sun Storage 3930TL HV C630 |
| **PCS QTY:** 8 units |
| **BESS Model:** JKE-4597K-2H-LAA |
| **BESS QTY:** 8 units |

### SLD of System Configuration

Detailed system configuration is shown in following diagram:

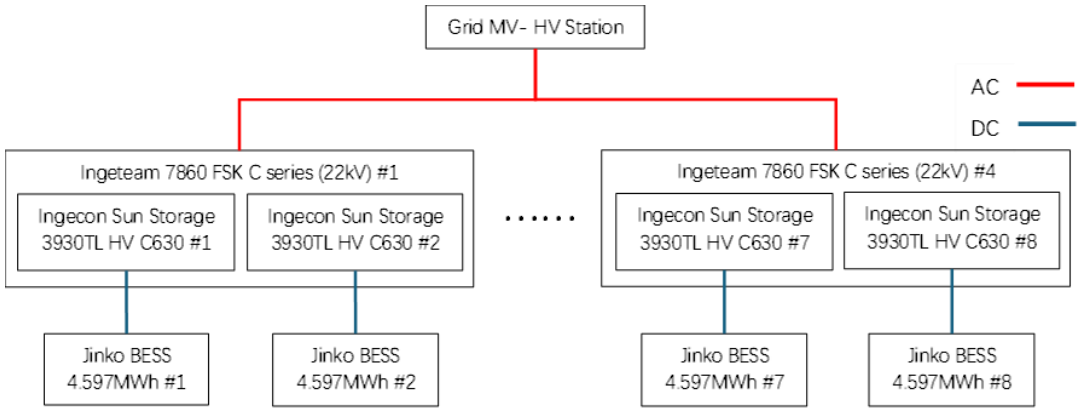



Figure 23: Wagga Wagga Configuration Diagram of 23.57MVA/36.78MWh

**Project 10 – Wagga Wagga**

## Jinko's Scope of Supply

Table 23: Wagga Wagga Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4597-2H-LAA | 8 | C4 coating |
| PCS | Ingeteam | Sun Storage 3930TL HV C630 | 8 | 2946kVA @ 30℃ |
| Transformer skid | Ingeteam | 7860 FSK C series | 4 | 22kV (24kV in spec.) |
| PPC | Ingeteam | Plant Controller | 1 | QTY to be further clarified |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Wagga Wagga AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 8 x JinkoSolar SunTera battery storage units
- 8 x Ingeteam PCS and relevant transformer skid, PPC

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## Project 10 – Wagga Wagga BESS Capacity Calculation

Table 24: Wagga Wagga Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 36.78 | 34.94 | 33.37 | 32.57 |
| FAT to COD in 4 months | **97.00%** | 35.67 | 33.89 | **32.37** | **31.57** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 34.71 | 31.98 | 30.55 | 29.75 |
| 2 | 91.45% | 33.63 | 30.99 | 29.60 | 28.80 |
| 3 | 89.07% | 32.76 | 30.18 | 28.83 | 28.03 |
| 4 | 87.29% | 32.10 | 29.58 | 28.26 | 27.46 |
| 5 | 85.82% | 31.56 | 29.08 | 27.78 | 26.98 |
| 6 | 84.10% | 30.93 | 28.50 | 27.22 | 26.43 |
| 7 | 82.66% | 30.40 | 28.01 | 26.76 | 25.96 |
| 8 | 81.22% | 29.87 | 27.52 | 26.29 | 25.49 |
| 9 | 79.81% | 29.35 | 27.05 | 25.83 | 25.03 |
| 10 | 78.30% | 28.80 | 26.53 | 25.34 | 24.55 |
| 11 | 77.00% | 28.32 | 26.09 | 24.92 | 24.12 |
| 12 | 75.66% | 27.83 | 25.64 | 24.49 | 23.69 |
| 13 | 74.30% | 27.33 | 25.18 | 24.05 | 23.25 |
| 14 | 72.94% | 26.82 | 24.72 | 23.61 | 22.81 |
| 15 | 71.59% | 26.33 | 24.26 | 23.17 | 22.37 |
| 16 | 70.23% | 25.83 | 23.80 | 22.73 | 21.93 |
| 17 | 68.92% | 25.35 | 23.36 | 22.31 | 21.51 |
| 18 | 67.64% | 24.88 | 22.92 | 21.89 | 21.10 |
| 19 | 66.36% | 24.40 | 22.49 | 21.48 | 20.68 |
| 20 | 65.10% | 23.94 | 22.06 | 21.07 | 20.27 |

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## Project 11 – Wyalong

### Project information

| Name of the project: Wyalong |
|---|
| **Location:** Wyalong, NSW, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, AC coupled BESS to the existing solar farm |
| **Requirement of usable power @POC @COD:** 40MW |
| **Requirement of usable capacity @POC @COD:** 80MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** Ingeteam Ingecon Sun Storage 3930TL HV C630 |
| **PCS QTY:** 18 units |
| **BESS Model:** JKE-5015K-2H-LAA |
| **BESS QTY:** 18 units |

### SLD of System Configuration

Detailed system configuration is shown in following diagram:

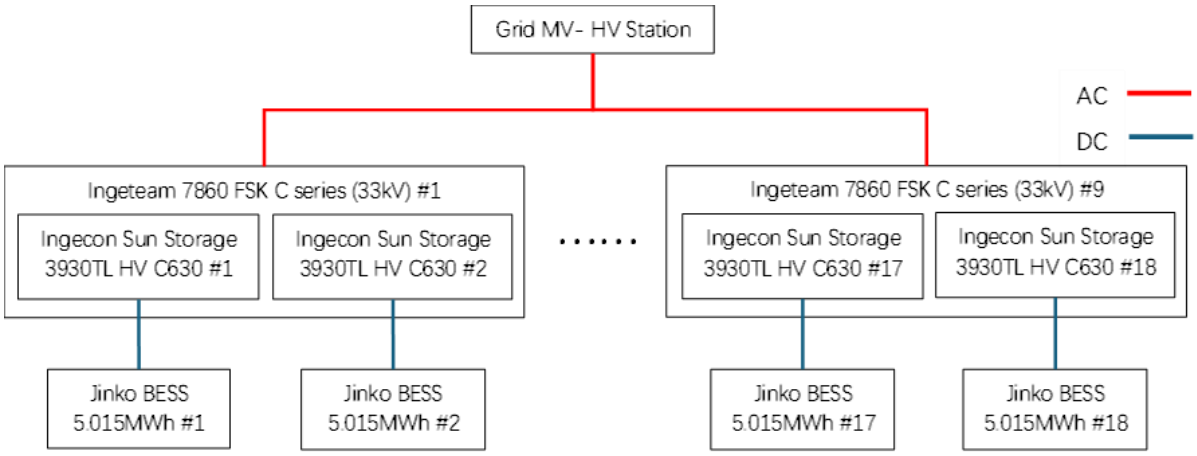



Figure 24: Wyalong Configuration Diagram of 53.03MVA/90.27MWh

**Note:** The configuration has around 2.35MWh (3%) gap from the required 80MWh. (Refer to Table 26 - AC usable capacity).

Although the gap can be filled with 36 units of 3.343MWh containers but with 18 more containers and 28% oversizing. From economical perspective (as discussed), Jinko would suggest keeping the current configuration and adjust the required AC usable capacity to 77MWh.

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**Project 11 – Wyalong**

## Jinko's Scope of Supply

Table 25: Wyalong Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-5015-2H-LAA | 18 | C4 coating |
| PCS | Ingeteam | Sun Storage 3930TL HV C630 | 18 | 2946kVA @ 30℃ |
| Transformer skid | Ingeteam | 7860 FSK C series | 9 | 33kV (36kV in spec.) |
| PPC | Ingeteam | Plant Controller | 1 | QTY to be further clarified |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Wyalong AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 18 x JinkoSolar SunTera battery storage units
- 18 x Ingeteam PCS and relevant transformer skid, PPC

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Project 11 – Wyalong

## Project 11 – Wyalong BESS Capacity Calculation

Table 26: Wyalong Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. AUX consumption) | AC usable capacity (MWh) (Incl. AUX consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 90.27 | 85.76 | 81.91 | 80.11 |
| FAT to COD in 4 months | **97.00%** | 87.56 | 83.18 | **79.45** | **77.65** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 85.19 | 78.50 | 74.98 | 73.19 |
| 2 | 91.45% | 82.55 | 76.07 | 72.66 | 70.86 |
| 3 | 89.07% | 80.40 | 74.09 | 70.76 | 68.97 |
| 4 | 87.29% | 78.80 | 72.61 | 69.35 | 67.56 |
| 5 | 85.82% | 77.47 | 71.39 | 68.19 | 66.39 |
| 6 | 84.10% | 75.92 | 69.96 | 66.82 | 65.03 |
| 7 | 82.66% | 74.62 | 68.76 | 65.68 | 63.88 |
| 8 | 81.22% | 73.32 | 67.56 | 64.53 | 62.73 |
| 9 | 79.81% | 72.04 | 66.39 | 63.41 | 61.61 |
| 10 | 78.30% | 70.68 | 65.13 | 62.21 | 60.41 |
| 11 | 77.00% | 69.50 | 64.05 | 61.17 | 59.38 |
| 12 | 75.66% | 68.30 | 62.94 | 60.11 | 58.32 |
| 13 | 74.30% | 67.07 | 61.81 | 59.03 | 57.24 |
| 14 | 72.94% | 65.84 | 60.67 | 57.95 | 56.15 |
| 15 | 71.59% | 64.62 | 59.55 | 56.88 | 55.08 |
| 16 | 70.23% | 63.40 | 58.42 | 55.80 | 54.00 |
| 17 | 68.92% | 62.22 | 57.33 | 54.76 | 52.96 |
| 18 | 67.64% | 61.06 | 56.27 | 53.74 | 51.94 |
| 19 | 66.36% | 59.90 | 55.20 | 52.72 | 50.93 |
| 20 | 65.10% | 58.76 | 54.15 | 51.72 | 49.92 |

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## Project 12 – Munna Creek

Project information

| Name of the project: Munna Creek |
|---|
| **Location:** Munna Creek, QLD, Australia (>200km from sea) |
| **Ambient temperature:** -10°C~+45°C |
| **Altitude:** <1000m |
| **Application scenarios:** On-grid, BESS only |
| **Requirement of usable power @POC @COD:** 60MW |
| **Requirement of usable capacity @POC @COD:** 120MWh |
| **Charge/Discharge time:** 2h (0.5P) |
| **PCS:** SMA Sunny Central Storage SCS 4600 UP |
| **PCS QTY:** 18 units |
| **BESS Model:** JKE-4179K-2H-LAA |
| **BESS QTY:** 36 units |

Detailed system configuration is shown in following diagram:

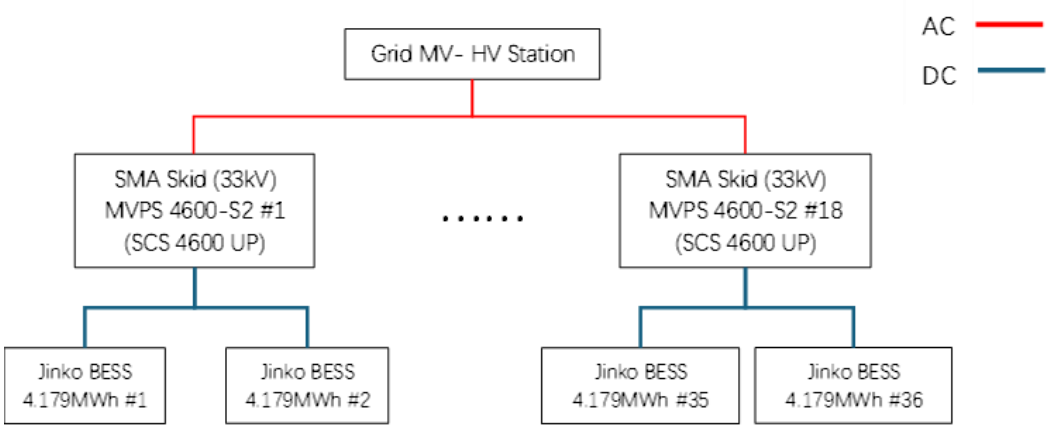



Figure 25: Munna Creek Configuration Diagram of 82.8MVA/150.45MWh

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**Project 12 – Munna Creek**

## Jinko's Scope of Supply

Table 27: Munna Creek Supply List

| Item | Manufacturer | Model | QTY | Comment |
|---|---|---|---|---|
| Battery Cell | EVE | MB31 | - | 314Ah |
| Battery Pack | Jinko | JKPK-104K-1P104S-LAA | - | |
| Battery Rack | Jinko | JKR-418K-LAA | - | |
| Battery Container | Jinko | JKE-4179-2H-LAA | 36 | C4 coating |
| PCS | Ingeteam | SCS 4600 UP | 18 | |
| Transformer skid | Ingeteam | MVPS 4600-S2 | 18 | 33kV |
| PPM | Ingeteam | Hybrid Controller | 1 | Minimum QTY |

## Jinko's Scope of Work

**Subject to project specifications** For Metlen – Munna Creek AC-coupled BESS Project, JinkoSolar is proposing to act as the Battery storage units' supplier and perform the required scope of works related to the installation and commissioning of:

- 36 x JinkoSolar SunTera battery storage units
- 18 x SMA PCS and relevant transformer skid, PPC

Project 12 – Munna Creek

## Project 12 – Munna Creek BESS Capacity Calculation

Table 28: Munna Creek Battery Capacity Degradation for ESS Plant

| Operational Year | FAT SOH | DC Nameplate capacity (MWh) | DC usable capacity @Battery Output (MWh) | AC usable capacity (MWh) (Excl. Aux consumption) | AC usable capacity (MWh) (Incl. Aux consumption) |
|---|---|---|---|---|---|
| 0 | 100.00% | 150.45 | 142.93 | 136.51 | 133.18 |
| FAT to COD in 4 months | **97.00%** | 145.94 | 138.64 | **132.42** | **129.08** |
| After COD year | SOH (based on COD usable capacity) | | | | |
| 1 | 94.37% | 141.99 | 130.84 | 124.97 | 121.63 |
| 2 | 91.45% | 137.59 | 126.79 | 121.10 | 117.76 |
| 3 | 89.07% | 134.00 | 123.48 | 117.94 | 114.60 |
| 4 | 87.29% | 131.33 | 121.02 | 115.59 | 112.25 |
| 5 | 85.82% | 129.12 | 118.98 | 113.64 | 110.31 |
| 6 | 84.10% | 126.54 | 116.60 | 111.37 | 108.03 |
| 7 | 82.66% | 124.37 | 114.60 | 109.46 | 106.12 |
| 8 | 81.22% | 122.19 | 112.60 | 107.55 | 104.21 |
| 9 | 79.81% | 120.07 | 110.65 | 105.68 | 102.34 |
| 10 | 78.30% | 117.80 | 108.55 | 103.68 | 100.34 |
| 11 | 77.00% | 115.84 | 106.75 | 101.96 | 98.62 |
| 12 | 75.66% | 113.84 | 104.90 | 100.19 | 96.85 |
| 13 | 74.30% | 111.79 | 103.01 | 98.39 | 95.05 |
| 14 | 72.94% | 109.74 | 101.12 | 96.58 | 93.25 |
| 15 | 71.59% | 107.70 | 99.25 | 94.79 | 91.46 |
| 16 | 70.23% | 105.66 | 97.37 | 93.00 | 89.66 |
| 17 | 68.92% | 103.69 | 95.55 | 91.27 | 87.93 |
| 18 | 67.64% | 101.76 | 93.78 | 89.57 | 86.23 |
| 19 | 66.36% | 99.84 | 92.00 | 87.87 | 84.53 |
| 20 | 65.10% | 97.94 | 90.25 | 86.20 | 82.86 |

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# JKE-5015K-2H-LAA
# 5.01MWh Liquid-cooled ESS
# User Manual

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# Preface

Dear users, thank you for choosing our products! Please be sure to read this user manual carefully before using our product.

By carefully reading this manual, it will enable you to better understand the characteristics of this product, correctly use and maintain this product, ensure the use of safety and give full play to the best performance of this product, so as to obtain the maximum benefit from using this product.

The pictures provided in this manual are for demonstration purposes only. Detailed information varies slightly depending on relationship between the product version and market area. This manual has been prepared in accordance with the status of our energy storage systems at the time of commissioning. The product form factor and technical specifications may evolve. This manual will be revised accordingly without prior notice when the product is updated.

If the system fails due to your negligence, incorrect use or unauthorized dismantling or cracking of the control program, etc., your right to warranty will be lost; any direct or indirect warranty claims resulting from such failure will not be accepted by our after-sales service department.

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| Version/Status | Modifier | Date | Remark |
|---|---|---|---|
| V1.0 | Nicki Hu | 2024.05.15 | First Version |
| V1.1 | Nicki Hu | 2024.06.26 | Update |
| V1.2 | Nicki Hu | 2024.08.30 | Based on NAM requirement |
| V1.3 | Nicki Hu | 2024.10.28 | 6.3.4 Updated |



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# 1.Summary

## 1.1 Overall Summarize

This manual mainly introduces our product, transportation, installation, operation, maintenance and troubleshooting of the 20' Standard Liquid-cooled Energy Storage System. Before using this product, please be sure to read this manual carefully and operate the energy storage system according to the methods described in this manual, otherwise may lead to equipment damage or personal injury.

## 1.2 Target Reader

This manual applies to personnel involved in transportation, installation and other operations related to this product, and those involved shall compliance with the following requirements:

- Proficiency in specialized knowledge of electricity, electronics and mechanical engineering, and comprehension of electrical schematics and structural drawings;
- Taking a knowledge of products, basic knowledge, working principle, control logic in the energy storage industry;
- Have the professional electrician construction certificate and qualification recognized by the local law when this product is used, and be familiar with the local relevant laws and regulations;
- Possess the ability to deal with emergency emergencies and handle related events according to the local laws and regulations when this product is used;
- Have a good understanding of the terms and conditions of this manual, with professional skills and a high sense of responsibility.

The manual contains important information, please read it carefully before operating and maintaining the system. Keep this manual and other details in the product components together to ensure timely access by operators and maintenance personnel.

## 1.3 Definition for Warning Sign

In order to protect the user’s personal and property safety when using this product, and to improve the using efficiency of this product, relevant information is noted in this manual, and relevant symbols are added to enhance the explanation.

The terms "Danger", "Warning", "Attention" and "Notice" in this manual do not represent all safety matters that should be followed, and you must also comply with relevant international, national or regional standards and industry practices. The company does not assume any responsibility for the violation of the safety operation requirements or the violation of the design, production and use of equipment safety standards.



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The following logos may appear in this document and the meanings they represent are listed below:

| Symbol | Instruction |
|---|---|
| **Danger** | Aiming to warn the immediate hazardous situation, if not avoided, will lead to death or serious personal injury. |
| **Warning** | Aiming to warn the potentially hazardous situations, if not avoided, may lead to death or serious personal injury. |
| **Caution** | Aiming to warn the potentially hazardous situations, if not avoided, may lead to moderate or minor personal injury. |
| **Note** | Aiming to communicate equipment or environmental safety warnings that, if not avoided, may lead to equipment damage, loss of data, degradation of equipment performance, or other unforeseen consequences. "Caution" does not involve personal injury. |
| | Indicates additional information in the manual that emphasizes and complements the content, or may provide tips or tricks for optimal use of the product that can help to take you out of some trouble or save your time. |
| | This symbol means that there is a high voltage hazard inside the product and any touching may lead to a risk of electric shock. |
| | This symbol means that there is a danger of high temperatures happening on the product and any touching shall be avoided to prevent from injury. |
| | This symbol means that the product here for the protection of the ground (PE), it is necessary to connect the grounding wire, the link is required to be firm and reliable, in order to ensure the safety of the operator. |
| | This symbol means that the product is prohibited from being opened and there will be a significant risk with any accidental opening. |
| | This symbol means that the product shall not be touched, any touching may take the device to malfunction, which will lead to a great danger. |



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## 1.4 Abbreviation

| SN. | Item | Definition |
|---|---|---|
| 1 | Cell | Single Battery Cell |
| 2 | PACK | Liquid-cooled Battery Pack |
| 3 | Rack | Battery system consisting of multiple battery PACKs and a high voltage box |
| 4 | Integrated Cabinet | It consists of an auxiliary power supply section, a BMS management section and a DC convergence section. Its role is to provide AC power for the internal energy storage container; collect internal data and communicate with the outside; and DC converge the battery racks. |
| 5 | BMS | Battery Management System |
| 6 | BMU | Level 1 BMS，Slave units for battery management systems |
| 7 | BCU | Level 2 BMS，Master control unit for battery management systems |
| 8 | SCU | Level 3 BMS，Master Control Unit for Battery Management Systems |
| 9 | PCS | Power Conversion System |
| 10 | UPS | Uninterruptible Power Supply |
| 11 | EMS | Energy Management System |
| 12 | Local controller | Centralized control system for overall control and management of the same local equipment groups, as well as liaison between equipment groups |
| 13 | SOC | State of Charge |



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# 2.Safety Statement

## 2.1 Safety Instructions

Please strictly observe the terms of the safety regulations in this product manual. In order to avoid possible injury or death and property damage during the use of this product, and to improve the service life and efficiency of this product, please be sure to read the safety specifications carefully.

For the safe operation and maintenance of Jinko BESS units, technicians must thoroughly read and strictly adhere to all safety instructions provided in this manual. JinkoSolar disclaims liability for any malfunctions, component damage, personal injuries, property loss, or other damages that may arise under the following conditions:

- Equipment damage caused by earthquake, flood, volcanic eruption, debris flow, lightning strike, fire, war, armed conflict, typhoon, hurricane, tornado, extreme weather, force majeure;
- Improper Charging: Battery damage or capacity loss resulting from not charging the batteries as per specified requirements.
- Handling and Operational Errors: Batteries that are dropped, damaged, or leak due to improper handling or failure to follow operational guidelines.
- Over discharge: Damage caused by failing to power on the batteries in a timely manner, leading to over discharge.
- Use of Incompatible Equipment: Damage resulting from the use of non-specified equipment for charging and discharging.
- Maintenance Failures: Frequent over discharge, incorrect capacity expansion, or prolonged periods without being fully charged due to improper maintenance.
- Incorrect Parameter Settings: Damage due to improperly set battery operating parameters.
- Unsuitable Operating Environment: Battery damage because the operating conditions do not meet specified environmental requirements.
- Unauthorized Use: Any damage resulting from using the batteries in ways not specified in this manual, including but not limited to, connecting extra loads.
- Non-Compliance with Maintenance Guidelines: Damages arising from failure to maintain the batteries as per the manual's instructions.
- Exceeding Warranty: Damage occurring from continued use of batteries past their warranty period.
- Use of Defective Batteries: Using damaged, defective, or deformed batteries.
- Mixing Battery Types: Damage caused by using JinkoSolar batteries in conjunction with other battery brands or with batteries of different capacities.
- Storage and Installation Risks: Property loss or damage resulting from storing or installing batteries near flammable or explosive materials.
- Unqualified Personnel: Personal injuries or property damage resulting from battery-related operations performed by individuals who are not qualified or who are not wearing



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appropriate safety gear.

- Unsafe Behavior: Damage caused by improper behavior such as eating, drinking, or smoking near the battery storage areas.
- Theft: Loss or damage due to battery theft.
- Adherence to these guidelines will ensure the safe and efficient operation of Jinko BESS units. Always consult the system manual for specific operational procedures and safety measures.

## 2.2 Operator Requirements

| | |
|---|---|
| **Danger** | The installation process is strictly prohibited from live operation. Do not install or remove cables with power on. Transient contact between the cable core and the conductor may generate electric arcs, sparks, or fire or explosion, which may cause fire or personal injury. |
| **Danger** | When the device is powered on, improper or incorrect operations may cause fire, electric shock, or explosion, resulting in personal injury or property damage. |
| **Danger** | Do not wear conductive objects such as watches, bracelets, bracelets, rings, and necklaces during operation to avoid being burned by electric shocks. |
| **Danger** | Use special insulation tools to avoid electric shock or short circuit. The insulation voltage withstand level must meet the requirements of local laws, regulations, standards, and regulations. |
| **Danger** | Special protective equipment must be used during the operation, such as wearing protective clothing, insulating shoes, goggles, safety hats, insulating gloves, etc. |

- A professionally qualified electrician is required to operate and maintain this product, and a complete set of specialized electrical equipment is required;
- Be able to assess the assigned tasks and recognize dangerous events that may occur;
- Be able to rescue injured personnel in the first instance;
- Understand the relevant maintenance standards for the product;
- In special scenarios, such as electrical operations, climbing operations, and special equipment operations, the personnel must have special operation qualifications required by the local country/region.



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## 2.2.1 Personal Protective Equipment (PPE)

According to “Maximum Power Method” in NFPA 70E, the estimated DC arc flash incident energy at the maximum power point can be calculated, and then the hazard boundary is defined.

The PPE is determined by the incident energy which is the temperature produced (in cal/cm2) (usually eighteen inches) from an arc flash is less than 1. Therefore, the PPE requirement for battery rack operational precautions is category 1.

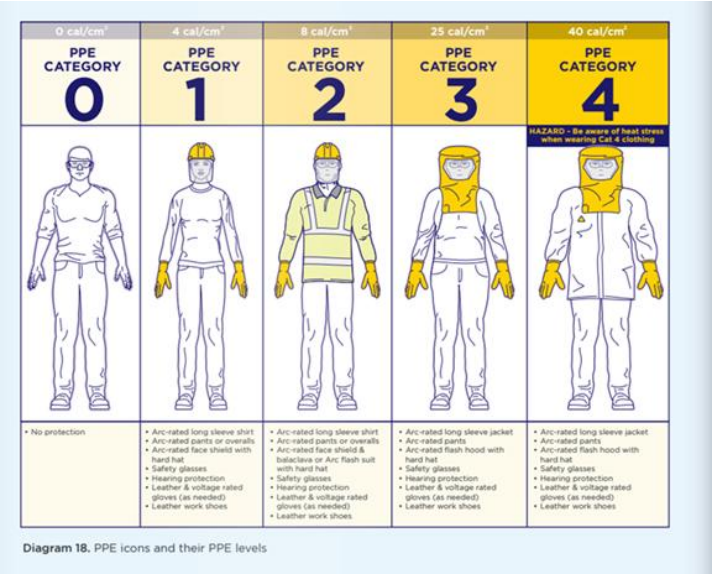



Figure 2-1-1 PPE Category

## 2.2.2 First Aid Measures

Contact Method and Appropriate Actions:

- Inhalation: Immediately move to fresh air. If breathing has stopped, perform artificial respiration and seek medical attention promptly.
- Skin Contact: Remove any contaminated clothing. Thoroughly wash the affected area with soap and water. If skin irritation or rash develops, seek medical attention.
- Eye Contact: Rinse the eyes with clean water for at least 15 minutes. If irritation persists, consult a medical professional.
- Ingestion: If the substance has been swallowed and the individual is conscious, administer water or milk to drink and seek medical attention immediately. Do not induce vomiting unless directed by a healthcare provider. If medical assistance is not readily available, take the individual, along with the substance container and label, to the nearest emergency medical facility. Do not give anything by mouth to an unconscious person.



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## 2.3 Electrical Safety

| | |
|---|---|
| Danger | Before electrical connection, ensure that the device is not damaged; otherwise, electric shock or fire may occur. |
| Danger | When the device is powered on, improper or incorrect operations may cause fire, electric shock, or explosion, resulting in personal injury or property damage. |
| Danger | Prevent foreign bodies from entering the device. Otherwise, the device may be short-circuited or damaged, load power supply derating or power failure, and personal injury may occur. |
| Warning | When installing a device that needs to be grounded, install the PGND cable first. When removing a device, remove the PGND cable at the end. |
| Note | Do not allow cables to pass through the air inlet and air outlet of the device. |

### 2.3.1 General Requirement

- The installation, operation, and maintenance must follow the sequence of steps in the manual. Do not modify, add, or change the equipment or change the installation sequence without authorization.
- It is necessary to obtain the permission of the power department of the country or region where it is located before it can be connected to the grid.
- Comply with plant safety regulations, such as operation ticket, work ticket system.
- Install temporary fences or warning ropes in the working area, and hang "Do not enter" signs, non-staff are strictly prohibited to enter.
- Before installing or removing power cables, disconnect the device and its front and rear switches.
- When liquid is found inside the device, turn off the power immediately and do not continue to use it.
- Before operating the equipment, it is necessary to carefully check that the tools used meet the requirements and register; After the operation is complete, retrieve the device by number to prevent it from being left inside the device.
- Before installing power cables, ensure that cable labels are correct and cable terminals are properly insulated.
- After installation, ensure that all protective shells and insulation tubes of electrical components are in place to avoid the risk of electric shock.
- If the device has multiple inputs, disconnect all inputs and perform operations on the



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device only after the device is powered off completely.

- When maintaining the power supply or distribution equipment at the rear of the power supply device, turn off the output switch of the power supply device.
- During equipment maintenance, hang "Do not close" signs on the upstream and downstream switches or circuit breakers, and post warning signs to prevent accidental connections. You can power it on again only after the fault is rectified.
- During fault diagnosis and troubleshooting, the following safety measures must be taken if power failure is required: power failure > Power inspection > Installation of ground cable > Hanging sign plate and installation of shield.
- Periodically check the screw of the device connection terminal to ensure that it is tight.
- If the cable is damaged, it must be replaced by a professional to avoid risk.
- It is strictly prohibited to alter, damage or block the logo and nameplate on the equipment, and timely replace the logo that has become unclear due to long-term use.
- Do not use water, alcohol, or oil to clean internal and external electrical components.

### 2.3.2 Electrostatic protection

Accumulation of static electricity may cause electric shocks, fires, explosions, failure and damage of electronic devices. There are circuit boards or other static-sensitive components in the energy storage system, in order to prevent or reduce the harm of static electricity, it is necessary to do a good job of static electricity protection, which in turn inhibits the generation of static electricity, accelerates the leakage of static electricity, and carries out static electricity neutralization. The prevention methods include but are not limited to:

- In the process of replacing components, all equipment devices that have not yet been installed should be retained in bags with anti-static shielding, and temporarily removed equipment devices should be placed on foam pads with anti-static function;
- Do not touch solder joints, pins, or exposed circuitry.



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## 2.3.3 Environment Requirement

| | |
|---|---|
| Danger | Do not place the device in an environment with flammable or explosive gas or smoke, and do not perform any operations in such an environment. |
| Danger | Do not store inflammable and explosive materials in the equipment area. |
| Danger | Do not place the device near heat sources or fire sources, such as fireworks, candles, heaters, or other heating equipment. Heat may cause damage to the device or cause a fire. |
| Warning | The device should be installed in an area away from liquid. Do not install the device under the water pipe or air outlet where condensate may occur. Do not install it under the air conditioner port, air vent, or cable window of the equipment room to prevent liquid from entering the device and causing device faults or short circuits. |
| Warning | When the equipment is running, do not block the vent, heat dissipation system or use other items to cover the equipment to prevent high temperature damage or fire. |

- Store the device in a clean, dry, well-ventilated place in an appropriate temperature and humidity environment. Keep the device away from dust and condensation.
- Do not install or operate the equipment beyond the range specified in the technical specifications; otherwise, the performance and safety of the equipment will be affected.
- Do not install, use, or operate outdoor equipment or cables (including but not limited to carrying equipment, operating equipment and cables, plugging and unplugging signal interfaces connected to outdoor, working at heights, outdoor installation, or opening doors) in bad weather such as thunder, rain, snow, or strong wind above level 6.
- Do not install the device in an environment that is exposed to dust, smoke, volatile gas, corrosive gas, infrared radiation, organic solvents, or excessive salt.
- Do not install the device in an environment with metal conductive dust or magnetic conductive dust.
- Do not install the device in an area that is prone to the breeding of fungi, molds and other microorganisms.
- Do not install the device in an area disturbed by strong vibrations, strong noise sources, or strong electromagnetic fields.
- Site selection should comply with local laws, regulations and relevant standards.
- Installation environment The ground should be solid and free of bad geology, such as rubber soil, soft soil, or easy subsidence. Low-lying areas such as water accumulation and snow are strictly prohibited. The water level of the site should be higher than the highest water level in the area.
- Do not install the device in a position that can be flooded by water.
- If the device is installed in a place with dense vegetation, in addition to routine weeding,



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harden the ground under the device, such as laying cement and stones.

- When installing, operating, or maintaining the device, clear the water, snow, ice, or debris on the top of the device and then open the door to prevent debris from falling into the device.
- Ensure that the surface is strong enough to meet the load-bearing requirements.
- After installing the device, clear the empty packing materials, such as cartons, foam, plastic, and cable ties, from the device area.

## 2.4 Battery Safety Instructions

| | |
|---|---|
| **Danger** | Do not short-circuit the positive and negative terminals of the battery, otherwise it will cause a short circuit of the battery. A short circuit in the battery will generate a large current and release a large amount of energy, causing the battery to leak, smoke, release flammable gas, thermal runaway, fire or explosion. In order to avoid battery short circuit, the battery is not allowed to live maintenance. |
| **Danger** | Do not expose the battery to high temperature environments or heat-generating devices, such as high temperature sunshine, fire sources, transformers, and heaters. Overheated batteries may cause leakage, smoke, release of flammable gases, thermal runaway, fire, or explosion. |
| **Danger** | Do not expose the battery to mechanical shock, drop, collision, hard object puncture, or pressure impact; otherwise, the battery may be damaged or fire may occur. |
| **Danger** | It is strictly prohibited to disassemble, modify or destroy the battery (such as inserting foreign bodies, external extrusion, immersion in water or other liquids) to avoid battery leakage, smoke, release of flammable gas, thermal runaway, fire or explosion. |
| **Danger** | Do not touch battery terminals with other metal objects. This may cause heat or electrolyte leakage. |
| **Danger** | Use or replace the battery model is not correct, there is a risk of fire, explosion. Use the specified battery model recommended by the manufacturer. |
| **Danger** | Battery electrolyte is toxic and volatile. When there is electrolyte leakage or abnormal odor, avoid contact with the leaking liquid or gas. Non-professional personnel should not approach, please contact professional personnel immediately. Professional personnel should wear goggles, rubber gloves, gas masks, and protective clothing to power off the device, take out the leaking battery, and contact technical support engineers. |
| **Danger** | The battery is a closed system that does not release any gas under normal operation. If extreme abuse, such as burning, needling, squeezing, lightning strike, overcharging, or other harsh conditions that may lead to thermal runaway of the battery, may cause damage to the battery or abnormal chemical reactions inside the battery, resulting in electrolyte leakage or CO, H2, etc., ensure that |



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| | |
|---|---|
| | flammable gas discharge measures are normal on site to avoid burning or corrosion of the device. |
| Danger | The gas produced by the combustion of the battery can irritate the eyes, skin and throat. Please pay attention to protection. |
| Warning | Do not install the battery under the air conditioner port, air vent, cable window, or water pipe in the equipment room. This prevents liquid from entering the device and causing fault or short circuit. |
| Warning | During battery installation and commissioning, fire fighting facilities, such as fire sand and carbon dioxide fire extinguishers, must be equipped in accordance with construction standards and specifications. Before putting into operation, it is necessary to ensure that there are fire fighting facilities that comply with local laws, regulations and regulations. |
| Warning | Before unpacking batteries, ensure that the outer packing cases are intact and undamaged during storage and transfer. Place them correctly according to the labels on the packing cases. Do not place them upside down, sideways, vertically, or at an Angle. |
| Warning | After the batteries are unpacked, place them in the required direction. Do not place them upside down, sideways, upright, tilted, or stacked to avoid battery damage or scrap caused by any impact or fall. |
| Warning | Tighten the screws of the copper bar or cable according to the torque specified in this document. Periodically check whether the screws are tightened and whether there is rust, corrosion, or other foreign matter, and clean the screws. Otherwise, the virtual connection of the screws will cause excessive voltage drop, and even a large amount of heat will burn the battery when the current is high. |
| Warning | After the battery is discharged, charge the battery in time; otherwise, the battery may be damaged due to over discharge. |

### 2.4.1 General Requirement

| | |
|---|---|
| | To ensure the safety of the battery and the accuracy of the battery management function, please use the battery configured by our company. The company will not be responsible for battery related failures arising from the use of batteries not configured by the Company. |

➢ Read the instructions provided by the battery manufacturer and comply with the manufacturer's requirements before installing, operating, and maintaining the battery. The safety precautions in this document are only important precautions. For more safety precautions, see the battery manufacturer's manual.



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- Please use the battery within the specified temperature range. Do not charge the battery when the ambient temperature is lower than the operating temperature limit to avoid internal short circuit caused by low temperature charging.
- Before unpacking batteries, check whether the package is intact. Damaged batteries cannot be used. If damaged batteries are used, inform the carrier and manufacturer immediately.
- Install the batteries within 24 hours after they are unpacked. If the batteries cannot be installed in a timely manner, reinstall them in the package and place them indoors in a dry environment without corrosive gas. The energy storage system must be powered on within 24 hours after installation. Remove batteries from packaging and power on the energy storage system within 72 hours. During routine maintenance, the power-off period cannot exceed 24 hours.
- Do not use damaged batteries (such as drops, collisions, bulge, or indentations in the case), which may result in leakage or release of flammable gases. If the battery is damaged, such as leakage or structural deformation, contact the installation provider or professional operation and maintenance personnel to remove and replace the battery. Do not store damaged batteries near other equipment or combustible materials, and non-professionals should not go near damaged batteries.
- Before operating the battery, ensure that there is no irritation or burning odor around the battery.
- Do not place installation tools, metal parts, or foreign objects on the battery during battery installation. After the installation is complete, clean the battery and the items around the battery.
- Do not install battery packs in rain, snow, or fog to prevent battery packs from being eroded by water vapor and rain.
- If the battery is accidentally flooded, do not continue to install, transported to the safety isolation point and scrapped in time.
- Before installing a battery pack, check that the battery pack cover is not deformed or damaged.
- Check whether the positive and negative battery poles are accidentally grounded. If the battery is grounded unexpectedly, disconnect the battery terminal from the ground.
- Do not weld or grind near the battery. Otherwise, electric sparks and electric arcs may cause fire.
- If the battery is not used for a long time, store and recharge the battery according to the battery requirements.
- Do not charge or discharge devices that do not comply with local laws, regulations and regulations.
- Keep the battery loop disconnected during installation and maintenance.
- The damaged battery should be monitored during storage to ensure that there are no signs of smoke, flame, electrolyte leakage or heat.
- When the battery is faulty, the surface temperature may be too high. Avoid touching the battery to avoid burns.
- Do not stand, lean or sit on the equipment.



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## 2.4.2 Short-circuit protection

- When installing and maintaining batteries, wrap exposed cable terminals on batteries with insulation tape.
- Avoid foreign objects (such as conductive objects, screws, and liquids) entering the battery and causing short circuit.

## 2.4.3 Liquid Leakage protection

| | |
|---|---|
|  | Electrolyte overflow may cause potential damage to the device. The electrolyte overflow may corrode metal objects and boards, causing board damage. |

The electrolyte is corrosive and contact may cause skin irritation and chemical burns. If you come into contact with battery electrolyte, take the following measures.

- Inhalation: Evacuate the contaminated area, get fresh air immediately, and seek medical help immediately.
- Eye contact: Immediately rinse eyes with plenty of water for at least 15 minutes without rubbing and seek immediate medical help.
- Skin contact: Wash contact areas immediately with plenty of water and soap, and seek medical help immediately.
- Ingestion: Seek medical help immediately



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# 3. Product Introduction

## 3.1 Overview for Energy Storage System

Our Suntera G2 is a 5.01MWh (nominal energy) energy storage system .According to the requirement of 0.5P charging/discharging ratio of energy storage system, this design adopts high-safety and high-reliability lithium iron phosphate battery cell for the system design .

This product is a 20-foot container energy storage system, including 12 battery racks and 1 integrated cabinet .Each battery rack is composed of 4 lithium iron phosphate battery boxes and 1 high voltage box in series, and is managed by a set of battery management system .Each battery box is grouped by 104 314Ah cells in 1P104S mode and managed by 2 BMUs battery monitoring units .The high-voltage DC bus of 12 subunits converges on 1 integrated cabinet, which controls two circuits (one with six), integrates the man-machine interface (SCU) of battery management system, provides Ethernet communication main interface for each battery cabinet, and also uploads battery data and information to the power station energy management system .The management and monitoring system is equipped with UPS, which can maintain the monitoring operation of the system for a certain period of time when the power grid is cut off.

## 3.2 Technical Parameters for the Energy Storage System

### 3.2.1 Container design scheme

The energy storage system of this product adopts integrated design, which integrates the energy storage battery rack and battery management system into a 20-foot container, which contains the battery rack, integrated cabinet, automatic fire fighting system, liquid-cooled system and other equipment.

The container has its own independent power supply system, temperature control system, heat insulation system, flame retardant system, fire alarm system, firefighting system, emergency system and other automatic control and safety guarantee systems .The container size is designed according to the standard 20-foot container, which is convenient for transportation.



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Table1 Parameters of Liquid-cooled System

| JKE-5015K-2H-LAA | | | |
|---|---|---|---|
| No. | Item | Specification | Remark |
| 1 | Type of Cell | LFP | |
| 2 | Auxiliary power supply | 400V AC, 50/60Hz | |
| 3 | Cell Parameter | 3.2V/314Ah | |
| 4 | Maximum charging/ discharging power | 0.5P | |
| 5 | Configuration of system | 1P416S×12 | |
| 6 | Rated Capacity | 5.01 MWh | |
| 7 | Rated voltage | 1331.2V | |
| 8 | Voltage range | 1164.8~1497.6V | |
| 9 | Cooling method | Liquid-cooled | |
| 10 | BMU Communication | CAN | |
| 11 | Operating temperature | -30～ 50℃ | |
| 12 | Humidity | ≤95%RH，no condensation | |
| 13 | Altitude | < 3000m, derating above 2000m | |
| 14 | Noise level | ≤80dB(A) | @1m/75dB |
| 15 | IP grade | IP55 | |
| 16 | Storage temperature | -20~45℃（For 1M）0~35℃（For 6M） | |
| 17 | Fire protection | Temperature sensor + Smoke detector + Combustible gas detector + Deflagration venting +Fire extinguishing gas + Water sprinkler | |
| 18 | Corrosion-proof grade | C4 | |
| 19 | Earthquake grade | Level 7 | |
| 20 | External communication interface | Ethernet/CAN/RS485 | |
| 21 | Dimension (L×W×H) | 6058×2438×2896mm | |
| 22 | Weight | 42T | |
| 23 | Design Life | 20 years | |



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## 3.3 Exterior Design for the Energy Storage Systems

### 3.3.1 Enclosure aesthetics

The container structure design mainly includes shape, steel structure selection, shell protection, container inlet and outlet lines, etc. The specific design is as follows:

Overall dimensions of container: 20-foot standard container with overall dimensions of 6058×2438×2896mm (20HQ);

The container has functions such as good corrosion prevention, fire prevention, waterproofing, dust prevention (sandstorm prevention), anti-vibration and ultraviolet protection, so as to ensure that the container will not fail due to corrosion, fire prevention, waterproofing, dust prevention (sandstorm prevention), anti-vibration, ultraviolet protection and other factors.

Fire prevention function: ensure that the container shell structure, thermal insulation materials, internal and external decorative materials are all made of flame retardant materials;

The overall protection level of the container is IP55. The parts of the container door panel that connect the outside are protected by sealing strips to prevent dust or rain from entering the container when it encounters sandstorm or rainy weather outdoors. Ensure that there is no water, water seepage and water leakage at the top of the container body, no rain on the side of the container body and no water leakage at the bottom of the container body;

Dust-proof (sand-proof) function: ensure that standard ventilation filter screens which can be easily replaced are installed at the air inlet and air outlet of the container and the air inlet of the equipment, which can effectively prevent dust from entering the container under gale, dust and sand weather conditions;

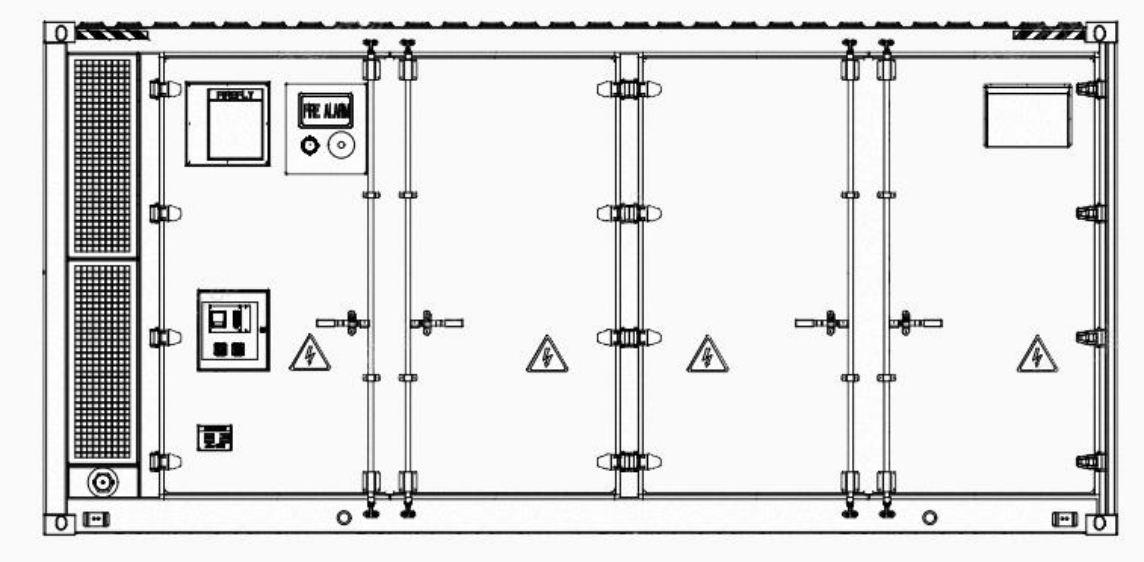
Anti-earthquake design: ensure that the mechanical strength of the container and its internal equipment meets the requirements under transportation and earthquake conditions, and there will be no deformation, abnormal function, non-operation after vibration, etc.

Anti-ultraviolet function: ensure that the properties of materials inside and outside the container will not deteriorate due to ultraviolet radiation, and will not absorb ultraviolet heat;

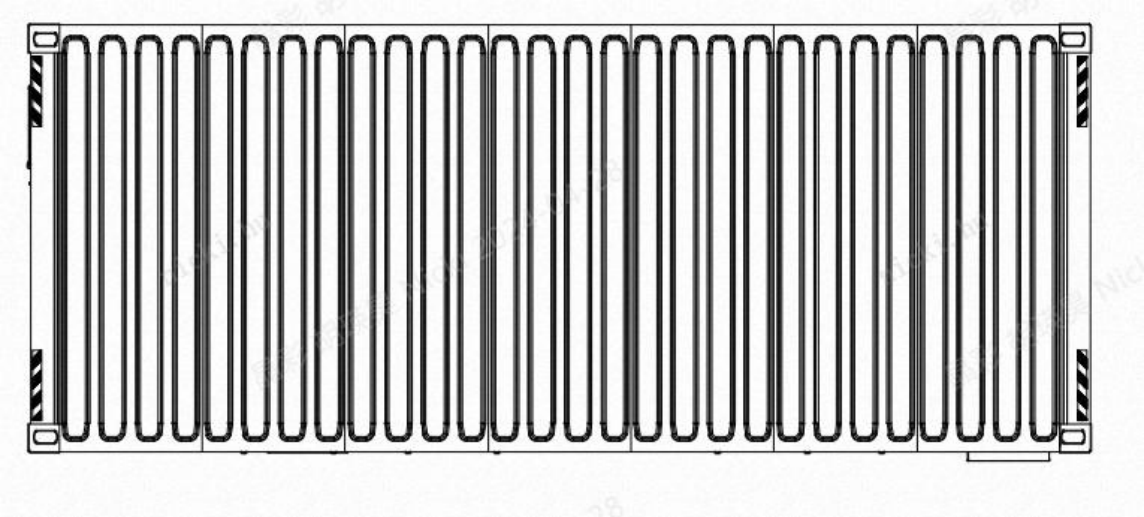


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The enclosure aesthetics with dimensions of the container are shown in the figure:



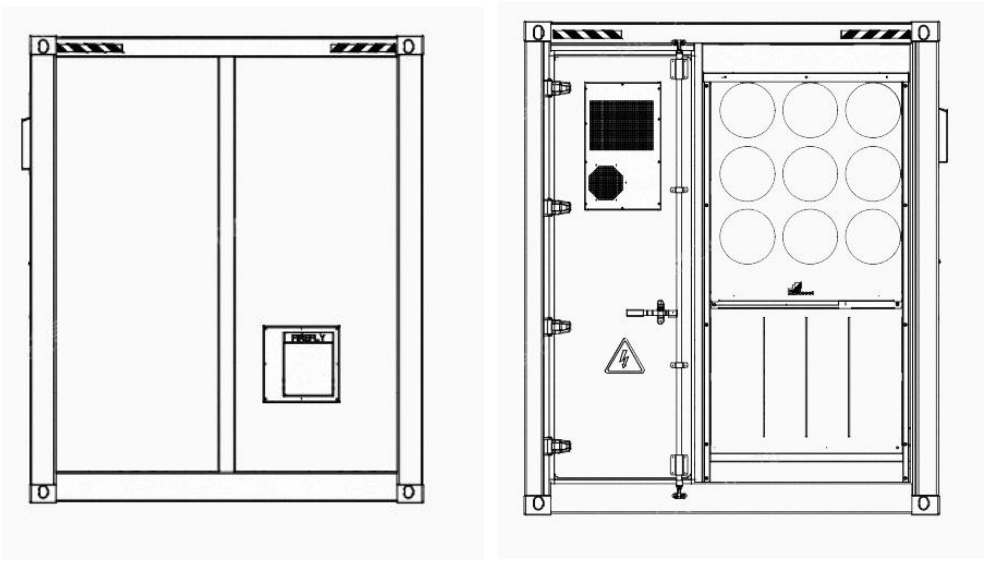

Front View



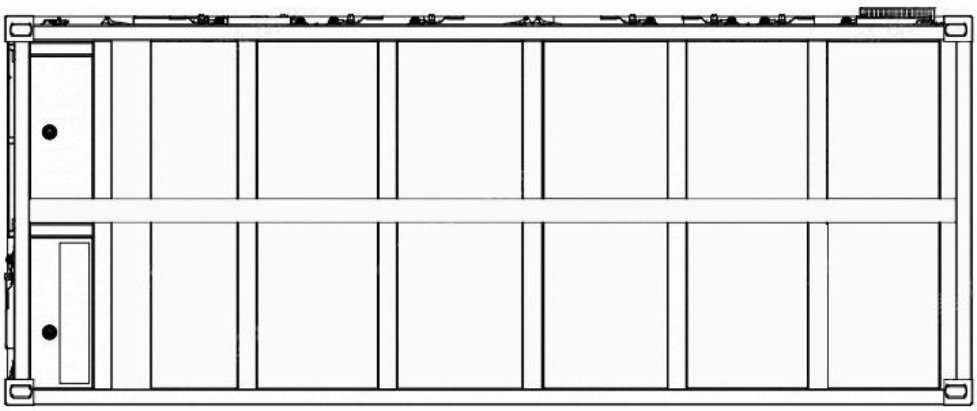
Top View



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Side View



Bottom View

Figure 3-3-1 Schematic diagram of 20-foot container layout

*Please note: The image provided is for illustrative purposes only. The actual product may vary.



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### 3.3.2 Ventilation Design

Containers are designed with a "bottom-in, top-out" ventilation scheme, as shown in the figure below:

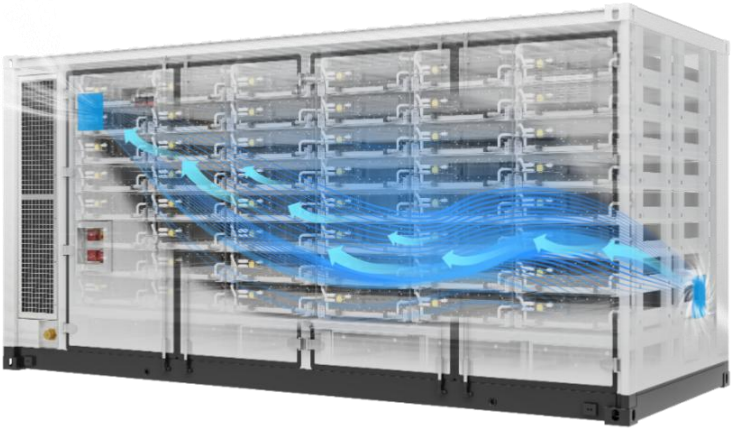


Figure 3-3-2 Schematic diagram of container ventilation

* Please note: The image provided is for illustrative purposes only. The actual product may vary.

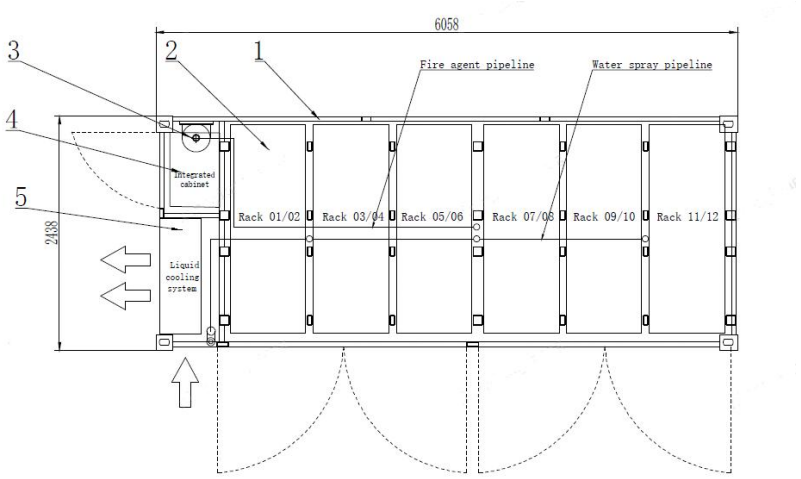
## 3.4 Internal Design for the Energy Storage Systems

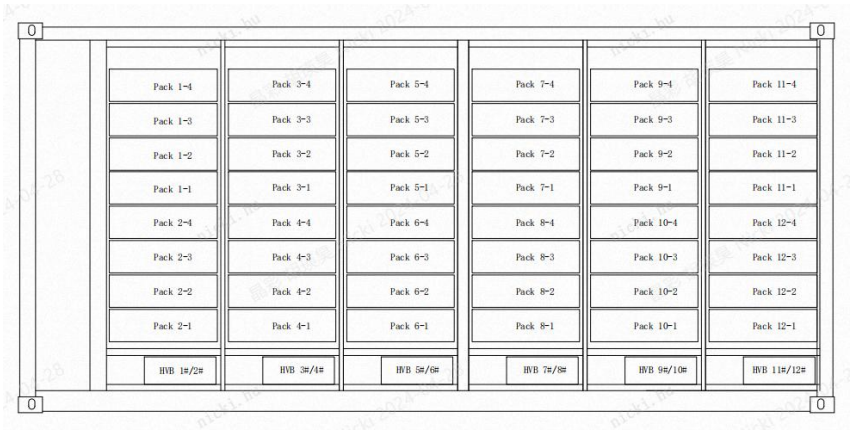
### 3.4.1 Composition of Internal Equipment

The 5.01MWh system consists of 12 sets of 418KWh battery racks, which are integrated and installed in a 20-foot container, containing a total of 12 battery racks, an integrated cabinet, a set of firefighting system, a set of liquid-cooled system, etc. The layout of the container is shown in the figure below:



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| 6 | others | | set | 1 | 1100kg |
|---|---|---|---|---|---|
| 5 | Liquid cooling system | 1200*440*2400mm | set | 1 | 500kg |
| 4 | Integrated cabinet | 800*400*1500mm | set | 1 | 500kg |
| 3 | Fire cylinder | | set | 1 | 500kg |
| 2 | Battery cluster | 930*2175*2450mm | set | 12 | 32400kg |
| 1 | Container | 6058*2438*2896mm | set | 1 | 7000kg |
| No. | Name | Specifications | Unit | Quantity | Remark |

Figure 3-4-1 Schematic diagram of container interior

## 3.4.2 High Voltage Box

High-voltage box is a kind of high-voltage power circuit management unit designed for energy storage system, which is an intermediate unit connecting battery rack and energy storage converter. High-voltage box has the functions of battery rack voltage, battery rack current collection, battery rack circuit contactor control and protection, summarizing the data uploaded by the first-level BMS (BMU), and realizing the information communication with the third-level BMS (SCU), and so on. The high-voltage control box contains circuit breakers, contactors, fuses, loop current control circuits,



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current sensors, battery rack control management module (BCU), switching power supply and other components. The high-voltage control box has been designed with full consideration of the electrical characteristics of each component, heat dissipation performance, safety performance and operability and maintainability, with reasonable space layout, featuring compact structure, flexible configuration, safety and reliability.

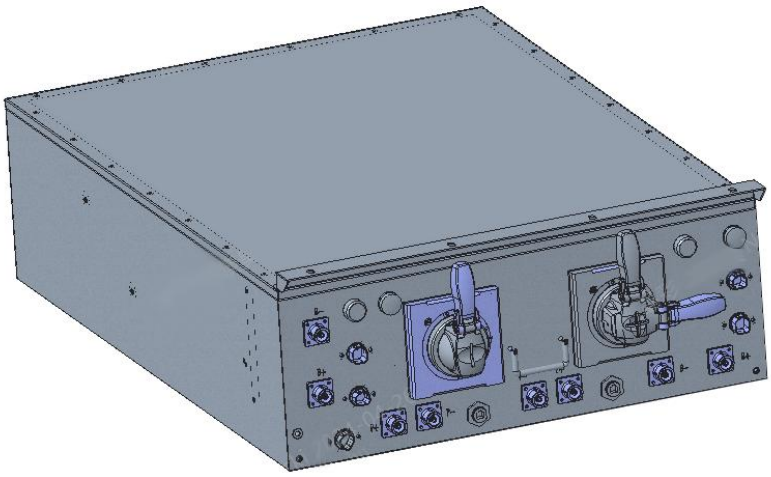


Figure 3-4-2 Outline Schematic Diagram for High Voltage Box

The main parameters of the high voltage box are listed below:

| SN. | Parameter | Value | Remark |
|---|---|---|---|
| 1 | DC Rated voltage | 1500V | |
| 2 | DC Rated current | 275A | |
| 3 | Power supply | AC230V，50Hz/60Hz，0.7A | |
| 4 | Protection level | IP54 | |
| 5 | Working Temperature | -30℃~55℃ | |
| 6 | Working Humidity | ≤95%RH，no condensation | |
| 7 | Working Altitude | ≤3000m | |
| 8 | Dimension (W*D*H) | 930×680×276mm | |
| 9 | Weight | ~65kg | |



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### 3.4.3 Cell

This design scheme adopts the mainstream 314Ah Ferrous lithium phosphate (LFP) square aluminum shell battery, and the parameters of the cell are as follows:

Table Parameters for Cell: 3.2V 314Ah

| SN. | Parameter | Value |
|---|---|---|
| 1 | Rated capacity | 314Ah |
| 2 | Rated voltage | 3.2V |
| 3 | Battery energy | 1004.8Wh |
| 4 | Max.charge/ discharge power | 0.5P |
| 5 | Voltage range | 2.8V ~ 3.6V |
| 6 | Operating temperature | Charging:0℃~60℃<br>Discharging:-30℃~60℃ |
| 7 | Storage temperature | -30℃~60℃ |
| 8 | Weight | 5.6±0.30kg |
| 9 | Cell dimention（W*D*H） | (173.7±0.5)×(207.2±0.5)×(71.70±0.5)mm |



Figure 3-4-3 schematic diagram of cell appearance



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### 3.4.4 Battery PACK

The design of battery PACK is to design batteries in series. According to the size of the battery PACK and the selected cell, the electrical box is connected in series with 104 cells. After series connection, the battery PACK is of 1P104S and the voltage is 332.8V. The specific parameters are as follows:

Table Parameters for Battery PACK:

| SN. | Parameter | Value |
|---|---|---|
| 1 | Cell | 314Ah,LFP |
| 2 | Configuration of PACK | 1P104S |
| 3 | Rated voltage | 332.8V |
| 4 | Voltage range | 291.2V~374.4V |
| 5 | Rated capacity | 104kWh |
| 6 | Max.charge/ discharge power | 0.5P |
| 7 | Operating temperature | -30℃~50℃ |
| 8 | Weight | ~650kg |
| 9 | Dimension (W*D*H) | 785x2190x240mm |
| 10 | Humidity | ≤95% RH, no condensation |
| 11 | Cooling method | Liquid-cooled |
| 12 | IP grade | IP67 |



Figure 3-4-4 Schematic diagram of battery PACK



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### 3.4.5 Battery RACK

Battery rack is mainly used to install battery PACK, high-voltage box and supporting wires and cables. The high-voltage box includes BCU, high-voltage and low-voltage electrical protection parts, etc .The design of battery rack adopts a layered design, and the appearance of cabinet adopts maintenance-free technology .The battery rack of this project is mainly equipped with 4 battery PACKs and 1 high-voltage box. The battery rack has complete installation and connection materials and can complete the wiring of battery output terminals. The parameters of a standard battery rack are as follows:

Table 3-4-5 Battery Rack Parameters

| SN. | Parameter | Value |
|---|---|---|
| 1 | Configuration of RACK | 1P416S |
| 2 | Rated voltage | 1331.2V |
| 3 | Rated capacity | 314Ah |
| 4 | Voltage range | 1164.8~1497.6V |
| 5 | Rated capacity | 418kWh |
| 6 | Battery PACK | 4pcs |
| 7 | High voltage box | 1pc |
| 8 | Weight | About 5.3T (including 2 racks) |
| 9 | Dimension (W*D*H) | 805x2192x2664mm(including 2 racks) |
| 10 | Humidity | ≤95% RH, no condensation |
| 11 | Cooling method | Liquid-cooled |

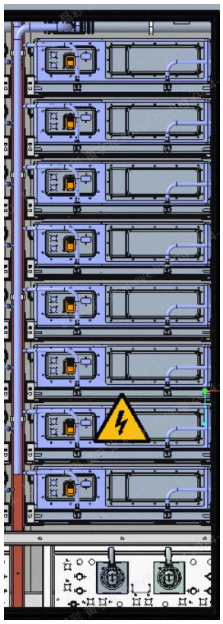


Figure 3-4-5 Schematic diagram of battery cabinet structure

*The above pictures are only for reference, please refer to the final received goods!



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### 3.4.6 Integrated Cabinet

1) The integrated cabinet provides high-voltage DC bus parallel convergence for 12 418kWh battery racks, and is equipped with lightning protection devices;
2) The integrated cabinet provides system emergency exit switch and function for 12 battery racks and battery management system;
3) The integrated cabinet provides the CAN bus convergence to 12 battery cabinets, integrates them into a battery management system, and converts the information of each battery rack into Ethernet protocol through SCU and sends it to EMS, and can independently complete the remote monitoring of the battery system;
4) The integrated cabinet provides a communication interface with PCS;
5) The SCU in the integrated cabinet has the function of network time synchronization;
6) In the standby state, it sends commands to the energy storage unit through EMS, which can complete the system scheduling function.

The schematic diagram of the appearance of the integrated cabinet is as follows:

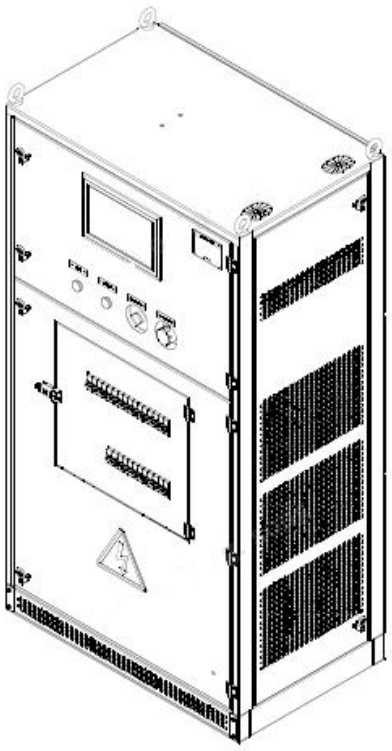


Figure 3-4-6 Schematic diagram of integrated cabinet

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**Wiring design of integrated cabinet**

1) The installation and wiring of components in the integrated cabinet are neat and reliable, their layout is reasonable, and their electrical insulation meets the relevant standards.
2) The distribution of DC circuits in the integrated cabinet is reasonable and clear, and the incoming and outgoing lines adopt well-known brand terminals, with isolation protection between the terminals; The design of the terminal blocks in the main control box is reasonable, for convenience of maintenance and debugging;
3) The integrated cabinet is designed with a circuit breaker to ensure that the system can be disconnected step by step during overhaul;
4) DC positive and negative wires adopt different color codes;
5) The high and low voltage wires and signal wires are separated in different wire troughs, and the incoming and outgoing wires adopt the lead wire and connecting wire mode of inlet down and outlet down;
6) The strong and weak secondary circuits are laid separately, and each terminal is connected to only one wire. The current terminal and the voltage terminal are clearly distinguished;
7) The position number and serial number of the components in the cabinet are consistent with those in the drawings, and all operable components are marked. The internal wiring is based on the wiring diagram and serial number, and all equipment installed on the panel is marked with planar identification marks.

## 3.4.7 Thermal management design of the container

The thermal management system in this scheme is divided into two parts: battery compartment thermal management system and electrical room thermal management system.

The thermal management system of battery compartment adopts liquid-cooled system, which consists of liquid-cooled unit, liquid return pipeline and battery liquid-cooled plate (Pack body part). In addition, it adopts multi-mode and refined thermal management control logic to ensure system temperature and temperature difference, and improve system consistency and service life.

The liquid-cooled unit and battery compartment are arranged in a completely independent structure, which improves the safety of the system .The rated refrigerating capacity of liquid-cooled unit is 60kW .The liquid-cooled pipeline adopts a three-stage pipeline scheme, and all pipelines adopt nylon hoses, which have the functions of heat preservation, condensation prevention and exhaust .Based on the simulation analysis of heat flow in the internal flow channel of battery liquid-cooled plate under all working conditions, the non-uniform flow channel design is adopted to ensure the uniform distribution of flow field and no fluid dead zone .According to the criterion of temperature and temperature difference at all levels, the system performs subdivided temperature zoning control and intelligently switches operation modes, which reduces auxiliary power consumption and improves system efficiency on the basis of ensuring system temperature and temperature difference .Based on the testing result, under the design working condition, the



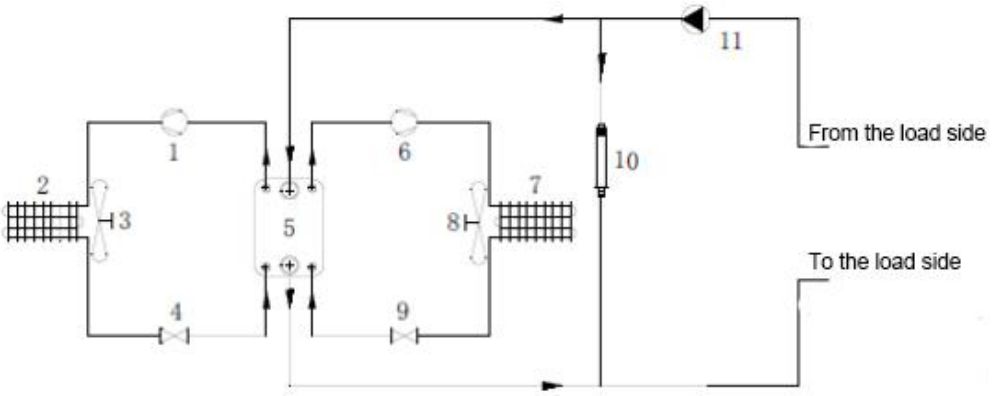
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maximum battery temperature of this product is ≤38℃, and the temperature difference between the Packs shall be ≤3℃.

The thermal management system of electrical room mainly adopts door-mounted industrial air conditioner (rated refrigeration capacity of 2kW) for air cooling circulation, which provides a working environment with reasonable temperature and humidity for indoor electrical components.

### 3.4.7.1 Liquid-cooled system

The liquid-cooling unit consists of refrigeration circulation system and coolant circulation system, and the system principle is shown in the following figure.




1:1# compressor 2: 1# condenser: 3: 1# condenser fan 4:1# throttling element

5: Plate heat exchanger 6: 2# compressor 7: 2# condenser: 8: 2# condenser fan

9: 2# throttling element 10: Electric heater 11:1# circulating water pump

**The working process of the liquid-cooled unit is as follows:**

1) After the discharge temperature reaches the refrigeration set point, the compressor is started to compress the gaseous refrigerant.

2) The air cooled chiller's control system adjusts the speed of the compressor motor according to the discharge temperature or the requirements issued by the upper computer, so as to control the power and discharge temperature of the whole machine.

3) The condenser condenses the high-temperature gaseous refrigerant.

4) The gaseous refrigerant is condensed into liquid, and the heat is exhausted to the air in the surrounding environment by the fan through the surface of the condenser.

5) The electronic expansion valve throttles and depressurizes the condensed refrigerant, which



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is then injected into the plate heat exchanger.

6) The refrigerant is evaporated in the plate heat exchanger and absorbs the heat of the coolant.

7) The circulating water pump sends the coolant to the plate heat exchanger for heat exchange with the refrigerant, and sends the cooled coolant to the container to cool the battery pack.

| No. | Parameter name | Parameter value |
|---|---|---|
| 1 | Operating voltage range | 400V±15%,3~, 50/60 ±3Hz |
| 2 | Operating environment temperature range | -30°C ~ +55°C |
| 3 | Operating relative humidity range | 5% ~ 95% |
| 4 | Storage environment temperature range | -40°C ~ +70°C |
| 5 | Storage environment humidity range | 5% ~ 95% |
| 6 | Transport performance | Can meet the requirements of land transportation, air transportation and sea transportation, etc. |
| 7 | External dimensions (W×D×H) | 1200mm×440mm×2400mm |
| 8 | Protection level of electrical control box | IPX5 |
| 9 | Coolant operating temperature range | -30°C~50°C |
| 10 | Coolant operating pressure range | 0.25bar~3.0bar |

### 3.4.7.2 Liquid-cooled Pipeline

The liquid-cooled pipe is a three-stage pipe system: all pipes are made of nylon hose, PA12 material, crimping process, and connected by quick-insert joints. The pipes are flexibly connected by bellows. The third-stage line and PACK link have a two-way stop valve design to ensure that there is no coolant leakage when removing and servicing the PACK.

The piping system has an automatic exhaust function to discharge the air in the liquid-cooled system in time and reduce the influence of gas on heat exchange and coolant stability.

The piping system is equipped with a convenient replacement filter to ensure the cleanliness of the cooling medium.

The external piping parts of the liquid-cooled system are required to be insulated without condensation.



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### 3.4.7.3 Leakage Monitoring and Response

**Reduce the risk of fluid leakage**

1) The lower box and liquid-cooled plate are integrated and designed, no joints and leaks inside the PACK;

2) The nylon hose used in the primary pipeline can effectively absorb the assembly tolerance, and the sealing form is changed from stainless steel chuck to quick insertion form with lower risk of vibration resistance and impact leakage;

3) The number of pipe joints is small, and high sealing fittings, valves, etc. are used;

4) Pipe fittings, valves, etc. are mainly arranged in the liquid-cooled unit compartment, which reduces the leakage risk points inside the battery compartment.

**Leakage monitoring and alarming**

1) Adopting the coupling judgment of differential pressure and coolant level to detect system leakage or blockage in advance. In addition, an optional flow meter can be used so as to further increase the sensitivity of the leakage detection.

2) Automatic replenishment system coolant level variance and automatic replenishment number of alarms, system leakage of high warning;

3) Coolant Leak Response Program

4) After the system monitors the abnormality, it will predict the risk of leakage/clogging according to the degree of leakage and stop the system operation in time to avoid the abnormality from expanding.

5) Equipped with a stable liquid leakage collection and discharge facility, which can not only minimize the diffusion of leaking coolant, but also slow down the uncontrolled spread of combustible gases released by thermal runaway of the cell.

## 3.4.8 Battery Management System BMS

### 3.4.8.1 Product Description

This design scheme adopts the mainstream battery management system scheme in the industry, and the main chip adopts a high-performance automotive chip .It includes two functions: energy storage system monitoring and battery management system. Each system includes slave units for battery management system (BMU), main units for battery management system (BCU), stack control unit (SCU), high voltage control unit and battery display control unit .This management system is used to detect the voltage and temperature of cell and total current of single rack, calculate the SOC of battery rack, and store the manufacturing information, version information and necessary operation history data of related battery cabinets. Each unit of the battery management system communicates in real time through CAN bus, and the main control unit transmits the operation status and alarm information of battery rack to the stack control unit, while receiving the operation instructions issued by the stack control unit in real time .The management system can automatically



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manage the high voltage and heat, coordinate the automatic battery balance function of the whole energy storage system, and automatically calibrate the SOC according to the calculation when necessary .The block diagram of the battery management system is shown below.

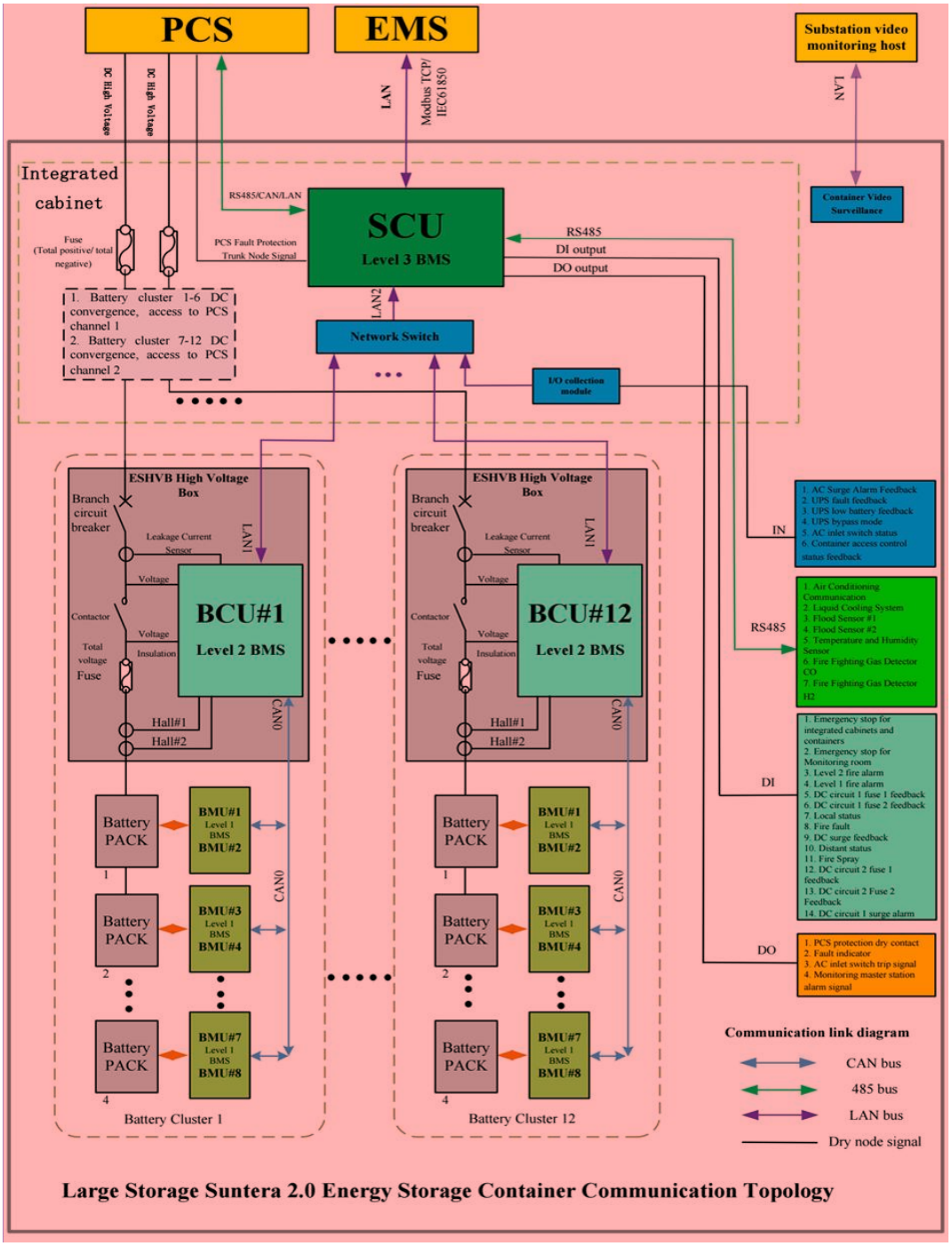



Figure 3-4-8-1 Block diagram of battery management system



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SCU(Level 3 BMS), is a kind of control and management host for energy storage battery management system, which carries out numerical calculation, performance analysis, alarm processing and record storage of real-time battery data uploaded by BCU (Level 2 BMS) and BMU (Level 1 BMS), and also realizes linkage control with PCS mainframe and energy storage management system (EMS), optimizes the load control strategy according to the output power requirement and SOC state of each rack of batteries, and keep the battery system with safe, stable and high-efficiency operation.

## 3.4.8.2 SCU layout

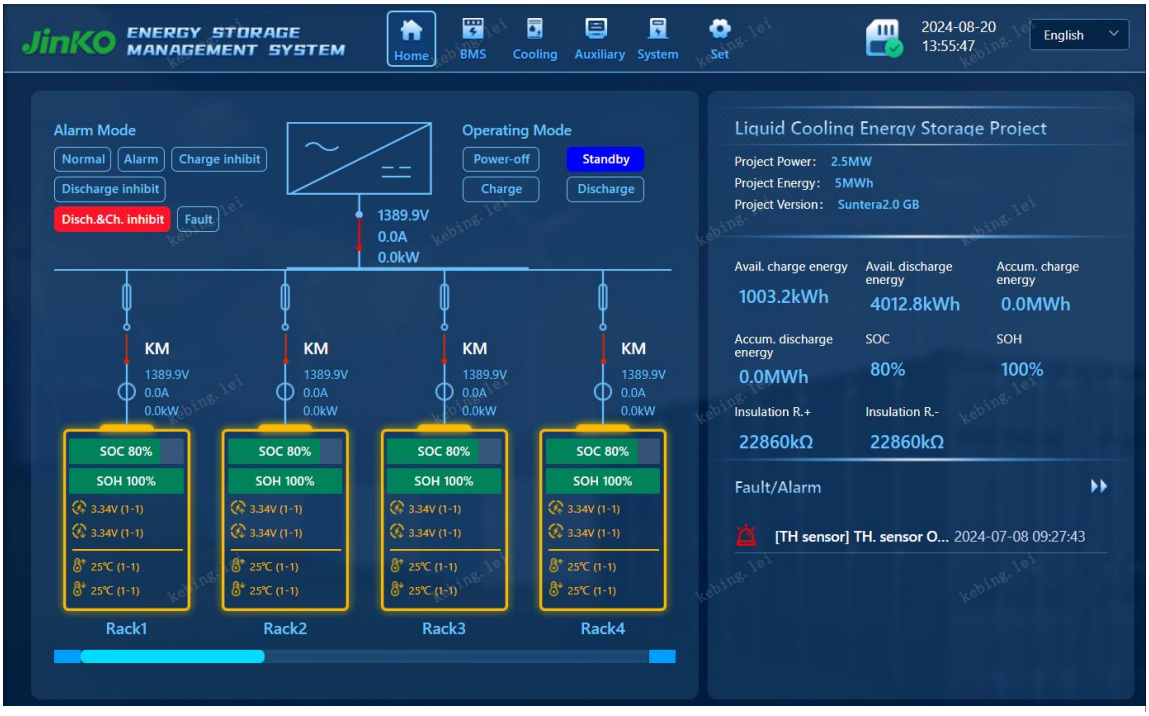



Figure 3-4-8-2 SCU front & back layout



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### 3.4.8.3 SCU Port Definition and Pin Order

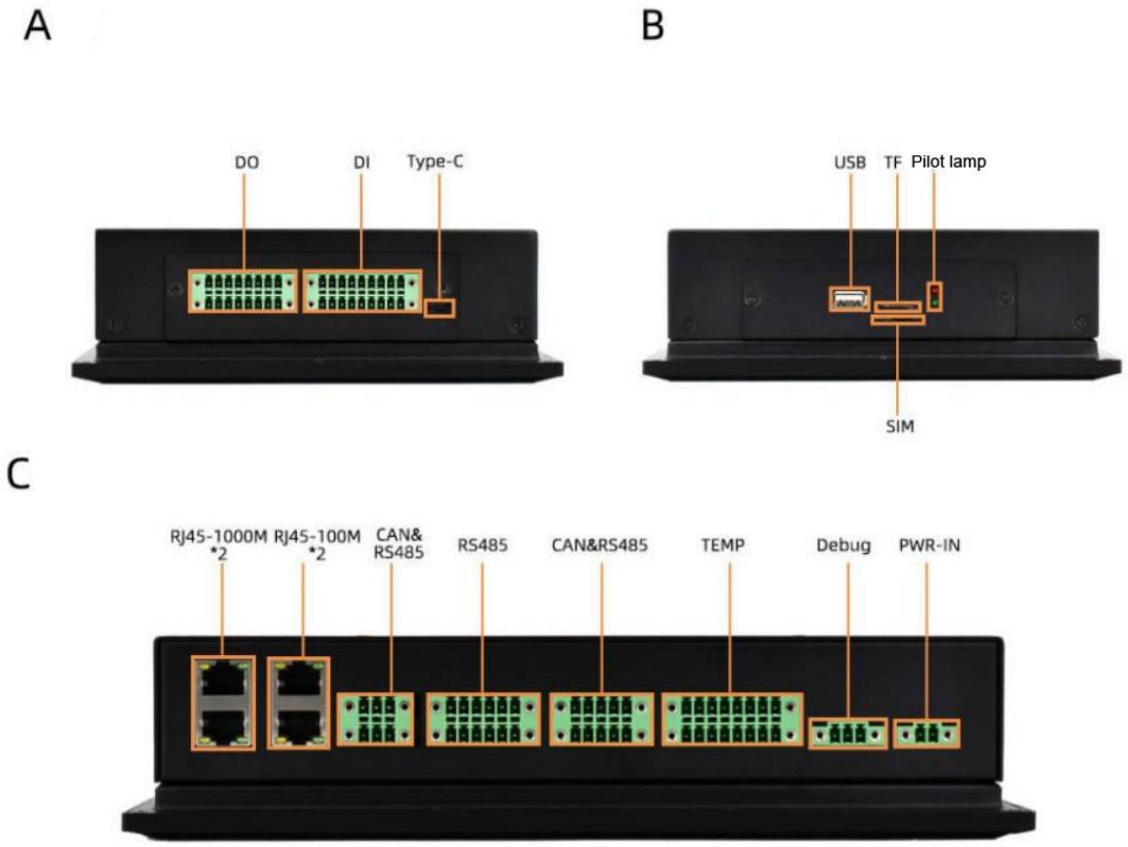



Figure 3-4-8-3 Schematic diagram of SCU interface

* Please note: The image provided is for illustrative purposes only.

1) RS485 PORT J12
(EDG-3.81MM Spaced double row 12Pin connector)

| SN | Function |
|---|---|
| 1 | RS485_CH4_A |
| 2 | RS485_CH4_B |
| 3 | SHELL_EARTH |
| 4 | SHELL_EARTH |
| 5 | RS485_CH3_A |
| 6 | RS485_CH3_B |
| 7 | RS485_CH2_A |



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| | |
|---|---|
| 8 | RS485_CH2_B |
| 9 | SHELL_EARTH |
| 10 | SHELL_EARTH |
| 11 | RS485_CH1_A |
| 12 | RS485_CH1_B |

2) RS485&CAN PORT J13

(EDG-3.81MM Spaced double row 10Pin connector)

| PIN No. | Signal Name |
|---|---|
| 1 | CAN2_H |
| 2 | CAN2_L |
| 3 | SHELL_EARTH |
| 4 | SHELL_EARTH |
| 5 | CAN1_H |
| 6 | CAN1_L |
| 7 | SHELL_EARTH |
| 8 | SHELL_EARTH |
| 9 | RS485_CH5_A |
| 10 | RS485_CH5_B |

3) RS485&CAN PORT J21

(EDG-3.81MM Spaced double row 6pin connector)

| PIN No. | Signal Name |
|---|---|
| 1 | CAN3_H |
| 2 | CAN3_L |
| 3 | RS485_CH6_A |
| 4 | RS485_CH6_B |
| 5 | SHELL_EARTH |
| 6 | SHELL_EARTH |

4) 4.2.4TEMP PORT J16

(EDG-3.81MM Spaced double row 16Pin connector)

| PIN No. | Signal Name |
|---|---|
| 1 | GND |
| 2 | TEMP_NTC4 |
| 3 | GND |
| 4 | TEMP_NTC3 |



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| | |
|---|---|
| 5 | GND |
| 6 | TEMP_NTC2 |
| 7 | GND |
| 8 | TEMP_NTC1 |
| 9 | GND |
| 10 | ADC4 |
| 11 | GND |
| 12 | ADC3 |
| 13 | GND |
| 14 | ADC2 |
| 15 | GND |
| 16 | ADC1 |

5) 4.2.4RS232 Debugging serial port J10
(EDG-3.81MM spaced 3Pin connector)

| PIN No. | Signal Name |
|---|---|
| 1 | DBG_TXD |
| 2 | DBG_RXD |
| 3 | GND |

6) 4.2.5PWR-IN PORT J2
(EDG-3.81MM Spaced single row 2Pin connector)

| PIN No. | Signal Name |
|---|---|
| 1 | PWR_IN |
| 2 | GND_PWR_IN |

7) 4.2.6DO PORT J15
(EDG-3.81MM Spaced double row 16Pin connector)

| PIN No. | Signal Name |
|---|---|
| 1 | REPLAY1_OUT1 |
| 2 | REPLAY1_OUT2 |
| 3 | REPLAY2_OUT1 |
| 4 | REPLAY2_OUT2 |
| 5 | REPLAY3_OUT1 |
| 6 | REPLAY3_OUT2 |
| 7 | REPLAY4_OUT1 |
| 8 | REPLAY4_OUT2 |
| 9 | REPLAY5_OUT1 |



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| | |
|---|---|
| 10 | REPLAY5_OUT2 |
| 11 | GND_PWR_IN |
| 12 | GND_PWR_IN |
| 13 | VCC_1A_OUT3 |
| 14 | VCC_1A_OUT2 |
| 15 | VCC_1A_OUT1 |
| 16 | VCC_1A_OUT0 |

8) 4.2.7DI PORT J18

(EDG-3.81MM Spaced double row 18Pin connector)

| PIN No. | Signal Name | PIN No. | Signal Name |
|---|---|---|---|
| 1 | DIN_01 | 2 | DIN_02 |
| 3 | DIN_03 | 4 | DIN_04 |
| 5 | GND_DIN_1 | 6 | GND_DIN_2 |
| 7 | DIN_05 | 8 | DIN_06 |
| 9 | DIN_07 | 10 | DIN_08 |
| 11 | DIN_09 | 12 | DIN_10 |
| 13 | DIN_11 | 14 | DIN_12 |
| 15 | DIN_13 | 16 | DIN_14 |
| 17 | DIN_15 | 18 | DIN_16 |

## 3.4.9 Ethernet Switches

### 3.4.9.1 Basic Introduction for Ethernet Switches

The EDS-2018-ML series Industrial Ethernet switches are equipped with 16 10/100M electrical ports and two 10/100/1000BaseT(X) or 100/1000BaseSFP combo ports, making them ideal for high-bandwidth data fusion applications. In addition, to provide versatility to meet applications in different industries, the EDS-2018-ML series allows users to enable or disable QoS features, broadcast storm protection and port interrupt alarm functions via DIP switches on the external panel.

The EDS-2018-ML series supports 12/24/48 VDC redundant dual power inputs, rail mounting and high EMI/EMC levels. In addition to its compact size, the EDS-2018-ML series has passed 100% burn test to ensure reliable operation in the field. The EDS-2018-ML series supports standard temperatures from -10 to 60°C, and wide temperature models from -40 to 75°C are also available.



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Figure 3-4-9-1 EDS-2018-ML diagram

### 3.4.9.2 Switch Features and Benefits

- Two Gigabit Ethernet ports are used for the uplink and flexible interface design for high-bandwidth data transmission
- Supports QoS and processes critical data in high-traffic transmission
- Relay output warning for power failure and port interruption
- IP30 protection
- 12/24/48 Redundant VDC dual power input
- Support -40 to 75°C operating temperature (-T model)

## 3.4.10 UPS

### 3.4.10.1 Basic Introduction for UPS

An UPS(Uninterruptible Power Supply) is a device that includes an energy storage system, primarily used to provide a stable power supply to equipment that requires high reliability.

Under normal grid condition, the UPS will keep grid voltage stable and give supply to the load, at this time the UPS is an AC voltage regulator, at the same time it is also charging from the battery to the machine; when the grid is lost(accidental blackout), the UPS will immediately transfer the battery's DC energy through the inverter switching method to the load with supplying 220V alternating current. So as to enable the load to maintain the normal work and protect the load software and hardware from being damaged. Generally, UPS equipment can both provide protection against over-voltage or under-voltage.



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## 3.4.10.2 Interfaces and Functions for UPS

The interface of UPS is shown as below:




Figure 3-4-10-2 Schematic diagram for UPS interface

| SN. | Name | Instruction |
|---|---|---|
| 1 | Graphic LCD display | - Clear display of information about the UPS status and measured values<br>- Enhanced Configuration Features |
| 2 | Front Panel | Panel for battery replacement (hot swap function) |
| 3 | Slot for management card | Netpack models come with a network card as standard |
| 4 | Output | 8 x IEC 10A + 2 x IEC 16A function with energy metering (including 2 programmable groups) |
| 5 | UPS port | USB port; 1 Serial Port; Dry contact output; Remote Power Off and Relay Outputs |
| 6 | External Battery Connector | Bridging for connecting Batteries to Devices |



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## 3.4.11 Air Conditioner inside the Integrated Cabinet

EC series air conditioner products belong to temperature control products which are developed for outdoor cabinet cooling occasions, mainly used to provide a suitable temperature environment and ensure the service life of the equipment inside the cabinet. The installation schematic diagram of the air conditioner is shown below:

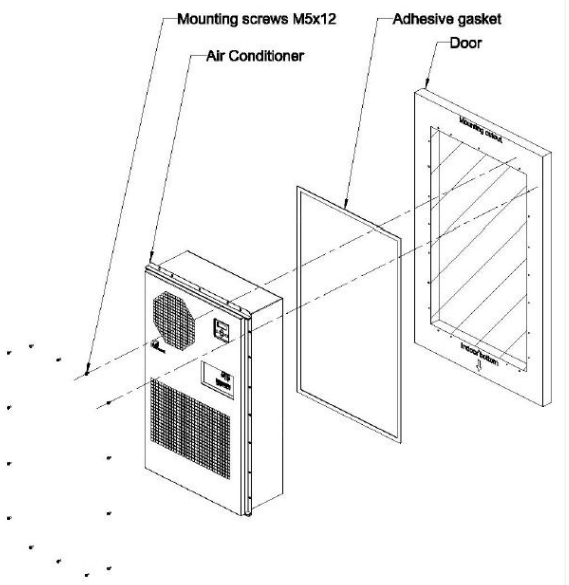



Figure 3-4-11 Schematic diagram for Air Conditioner Installation on the energy storage system



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## 3.5 Primary Diagram for the Energy Storage System

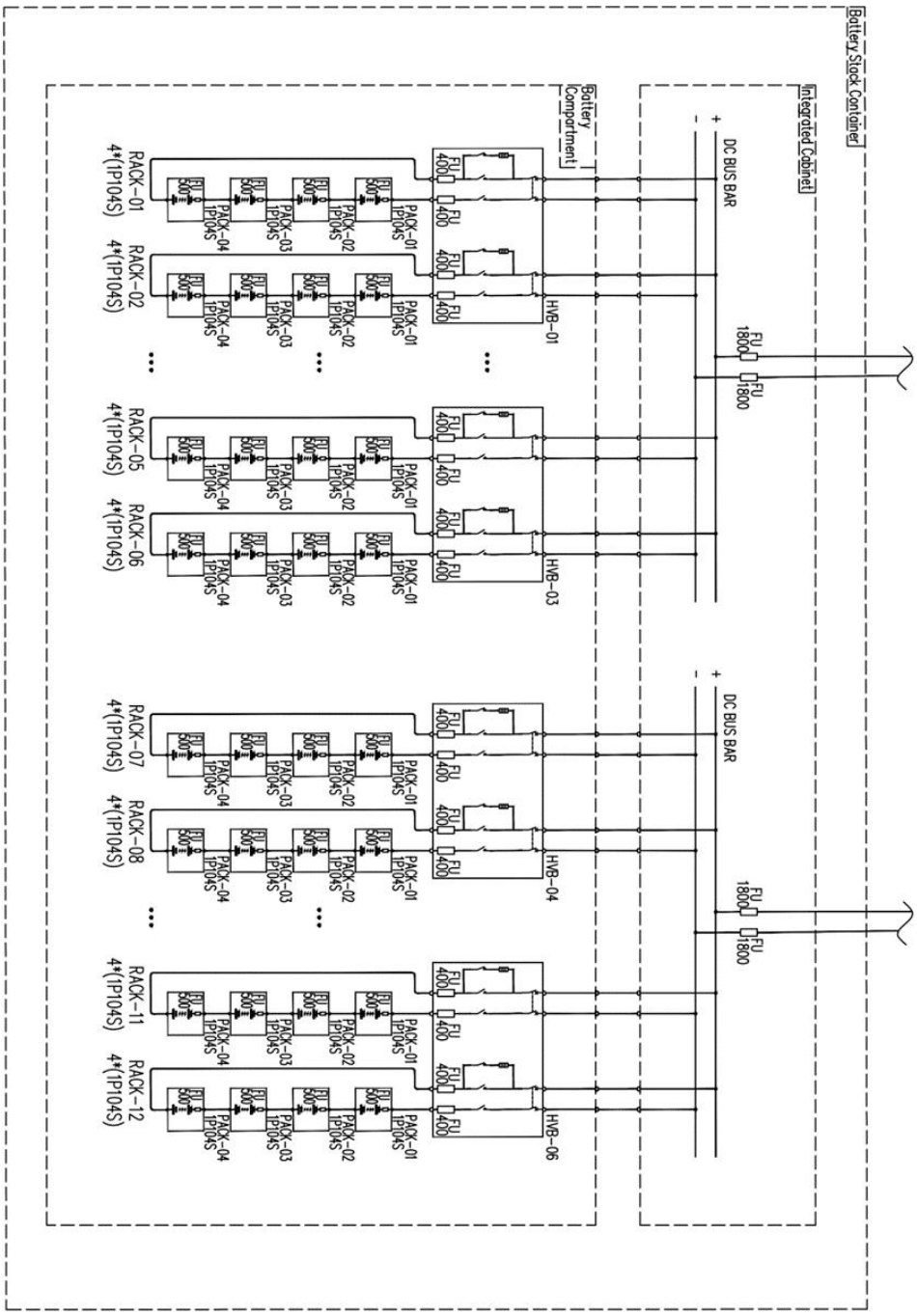



Figure 3-5 Primary schematic diagram for the energy storage system



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# 4. Lifting, Transportation and Storage

## 4.1 Lifting Operation

### 4.1.1 Precautions for Lifting

| | |
|---|---|
|  Warning | ➢ In the process of lifting, it is necessary to operate in strict accordance with the safety regulations of the crane.<br>➢ It is strictly prohibited to keep people stand there within 10 meters of the operation area, especially under the lifting arm and under the lifting or moving machine, to avoid accidents.<br>➢ In case of bad weather conditions, such as heavy rain, fog, strong winds, etc., lifting should be stopped. |

### 4.1.2 Preparation for Lifting

1) Crane preparation:

The total weight of the equipment is about 42 tons, please select the crane according to the total weight, recommended model: 80 tons to 120 tons.

2) Spreader preparation:

Wire rope, unloading buckle, spreader bar, etc.

### 4.1.3 Lifting Steps

1) When loading or unloading goods, a crane of suitable tonnage must be used. When lifting, nylon sling (belt) or steel wire rope can be used;

2) The lifting process should strictly refer to the lifting diagram for lifting, see the attached diagram below for details;

3) In the process of lifting, the container should be kept stable and the tilt angle is ≤5°;

4) The whole lifting process should be carried out slowly, pay attention to the observation of the balance of the box state, do not move too fast;

5) When moving horizontally, the tilt angle should not exceed 15°;

6) During the whole lifting process, anyone is not allowed to stand under the container and crane;



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## 4.1.4 Schematic Diagram on Lifting and Installation for Liquid-cooled Energy Storage System

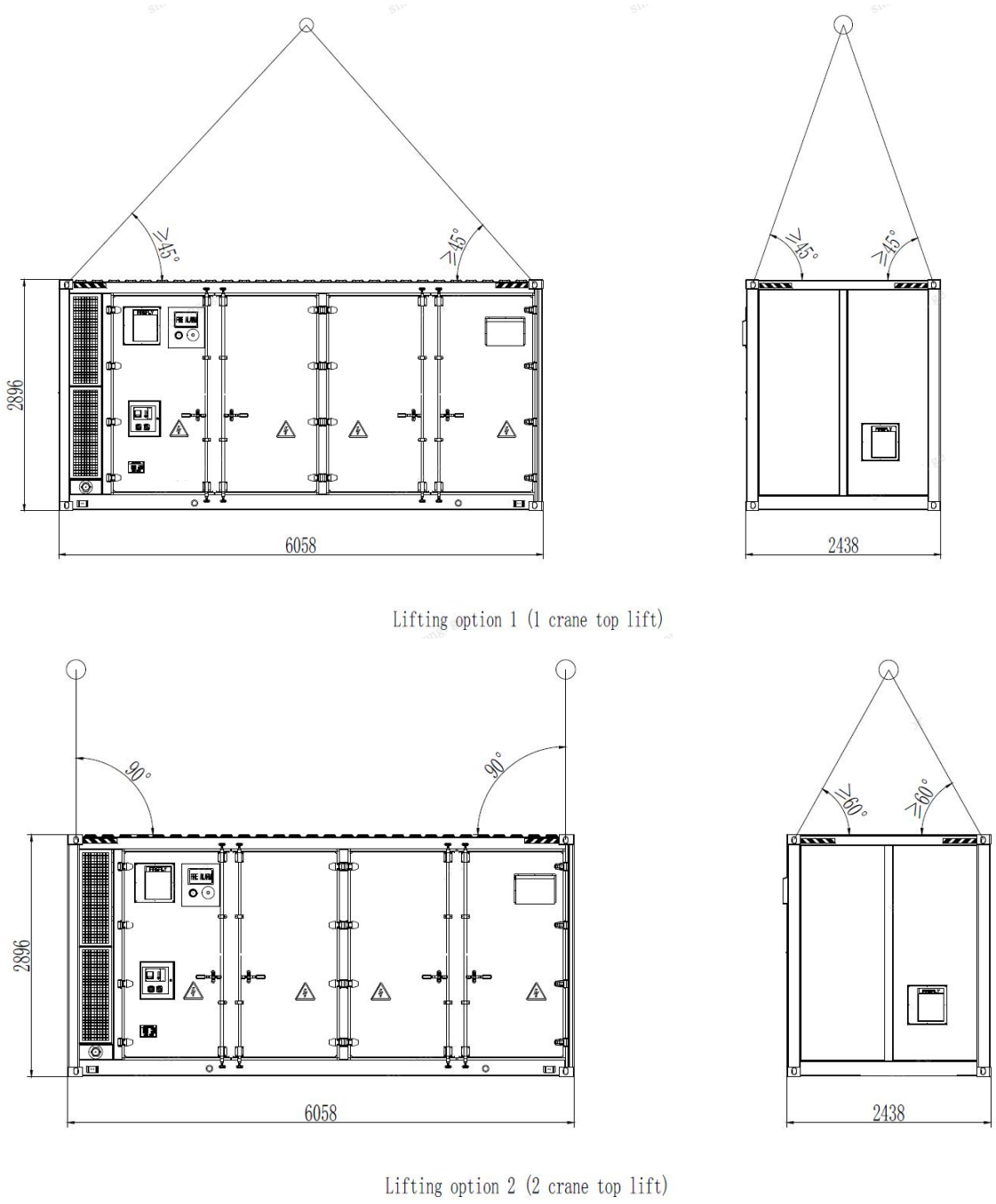



Figure 4-1 Schematic Diagram on Lifting for Liquid-cooled energy storage system



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## 4.2 Transportation

Liquid-cooled energy storage system containers are suitable for land and sea transportation, and should be sheltered and sun-protected during transportation, civilized loading and unloading, and direct rain, snow and mechanical impact should be avoided during transportation.

### 4.2.1 Environmental Requirements for Transportation

According to the characteristics of the battery, the battery pack should follow the below requirements during storage and transportation to maximize the protection of battery performance:

Average daily storage temperature: ≤20℃.

Humidity: ≤95%, no condensation.

### 4.2.2 Preparation before Leaving the Factory for Liquid-cooled Energy Storage System

1) The container outside the gap in the place before shipment must be sealed with a sealing plate, sealing tape to ensure that the internal equipment is not affected during transportation;




Figure 4-2 Schematic diagram of sealing board blocking

2) At the same time, in order to avoid bumping in transportation, to prevent the paint film from being scratched and other issues, according to the customer's choice, each container can be equipped with an optional rainproof canvas cover to strengthen the protection of the box;



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Figure 4-3 Packaging Schematic on Tarpaulin

3) For sea transportation, it is necessary to add the relevant markings certified by the classification society: box master code, box number, weight and other relevant markings;

4) For ocean shipments, meet MSDS certification and affix a Class 9 Dangerous Goods label;

### 4.2.3 Road Transportation

1) Obey the traffic rules;

2) Because the container equipment is equipped with batteries inside, speeding is prohibited. On flat asphalt road, highway speed limit is 70km/h, slow down at curves and speed limit is 50km/h; town road speed limit is 40km/h, avoid emergency starting and emergency braking;

3) Please drive with special care on any road surface such as non-flat asphalt road and the speed limit is 50km/h;

4) Prohibit transportation on the surface of bad bumpy road;

5) The goods are firmly tied; before departure, check the tying situation once; during transportation, check the tying situation once every 4 hours;

| | |
|---|---|
| **Note** | Please always keep in mind the mechanical parameters of the energy storage system during transportation and loading/unloading:<br>Dimensions (L×W×H): 6058×2438×2896mm (20HQ)<br>Weight: 42 tons |



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## 4.3 Storage

Considering storage， system should be placed in a dry warehouse, shall not be exposed to sunlight and rain. Harmful gases, flammable, explosive products and corrosive chemicals are not allowed in the warehouse, avoid mechanical shock, heavy pressure and strong magnetic field effect, avoid direct sunlight, no less than 2m away from the heat source, and at least 50cm away from the wall, window or air inlet.

Average daily storage temperature: ≤20℃;

Allowable storage temperature: short-term storage temperature range (within 1 month): -20~45℃; long-term storage temperature: 0℃～35℃;

Storage humidity: ≤95%, no condensation;

Under the conditions set forth herein:

It is recommended that the battery should be discharged and recharged every 3 months to ensure that the SOC of the battery remains within the range from 15 to 40%;

A capacity check test and re-inspection is required every 12 months.

| | |
|---|---|
| **Warning** | During the storage of the liquid-cooled energy storage system, JinkoSolar Co., Ltd. shall not be liable for any damage to the system caused by the user's failure to comply with the storage methods and requirements set forth in this manual. |



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# 5. Foundation Building

When selecting the site for the foundation, please follow the principles below:

Climatic environment, soil and geological conditions (e.g. stress wave emission, underground water level) and other characteristics of the place where this liquid-cooled energy storage system is installed should be fully considered.

The surrounding environment should be dry, well ventilated and away from flammable and explosive areas.

The foundation soil needs to have a certain degree of compactness. It is recommended that the relative compactness of the soil at the installation site is ≥98%. If the soil is loose, please make sure to take measures to ensure the foundation is stable.



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# 6. Equipment Installation

## 6.1 Installation Instructions

The internal equipment of the Liquid-cooled energy storage system has been reliably connected and tested before leaving the factory, and it is necessary to install and fix the container box, connect the power cables to the DC side of the PCS, do connection on the external signal cables, do connection on the external auxiliary power supply cables, and connect the container to the ground on the project site. The installation steps is shown as Figure 6-1:

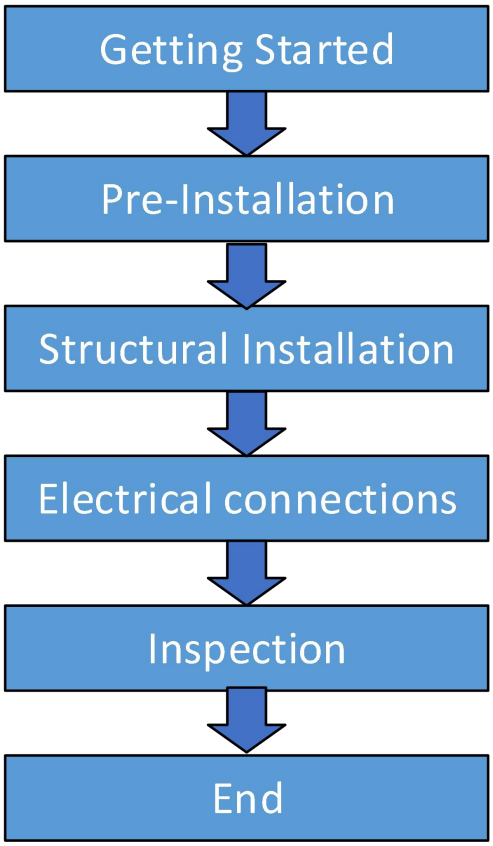



Figure 6-1 Installation Steps on Liquid-cooled Energy Storage System



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The installation steps on liquid-cooled energy storage system is described in detail as Table 6-1 shown:

Table6-1 Detailed description of the installation steps

| Installation protocol | Installation steps |
|---|---|
| Pre-installation | ➢ Check containers and functional cabinets for cosmetic damage.<br>➢ Check the container and functional cabinets for damage or detached components.<br>➢ Verify that all components are intact and not missing<br>➢ Confirm that the installation environment meets the requirements.<br>➢ Confirm the availability of equipment for lifting containers at the project site. |
| Structural installation | ➢ Moving liquid-cooled energy storage system containers to prefabricated foundations using cranes.<br>➢ Securing the container according to project requirements. |
| Electrical connection | ➢ Connecting Ground Points.<br>➢ Connecting DC side cables on PCS.<br>➢ Connecting external communication and power cables. |

## 6.2 Pre-Installation

### 6.2.1 Inspection for Delivering

Compare the equipment delivery list to determine if the quantity of equipment matches the list.

### 6.2.2 Inspection for Equipment

Check whether the final equipment received will match the model of the equipment ordered.
Check whether the inside and outside of the equipment are intact and undamaged.
If there is any instruction material in the packing box, please keep it in safe.

| | |
|---|---|
| **Warning** | Guarantee that the installed equipment is the same model as the final ordered equipment.<br>Guarantee that the installed equipment is free from any damage. |



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### 6.2.3 Environment Requirements for Installation

The box of liquid-cooled energy storage system on installation environment should follow the below requirements:

Table6-2 Requirements for installation environment on box of Liquid-cooled energy storage system

| Projects | Requirement |
|---|---|
| Installed Location | Land Surface Inclination≤1°<br>Seismic Resistance＞Level 8 |
| Environment Temperature | -30~+50℃ |
| Relative Humidity | ≤95%, no condensation |
| Altitude | ＜3000m |

### 6.2.4 Installation Procedure for Liquid-cooled Container

#### 6.2.4.1 Fixing Connections for Cabinet of Liquid-cooled Container

Use crane (recommended lifting capacity: 80-120 tons to slowly lift the whole liquid-cooled energy storage system onto the prefabricated foundation, please refer to the lifting operation content in chapter 6.1 of this manual for specific lifting method;

The container shall be installed and fixed according to the site conditions. There must be a concrete foundation with sufficient strength at the bottom of the container. When the container is installed, there must be sufficient supports at the four corners of the container and the bottom side beams.

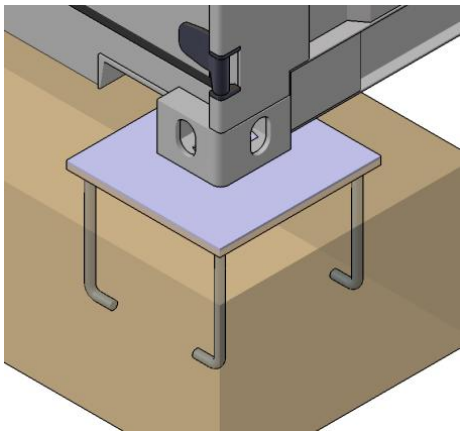


Figure 6-2-4- 1 (1) Schematic diagram of container welding and fixing.



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Bolt connection is to connect the four corner pieces at the bottom of the container with the embedded support with a set of T-bolt groups, and the fixing method is as follows:

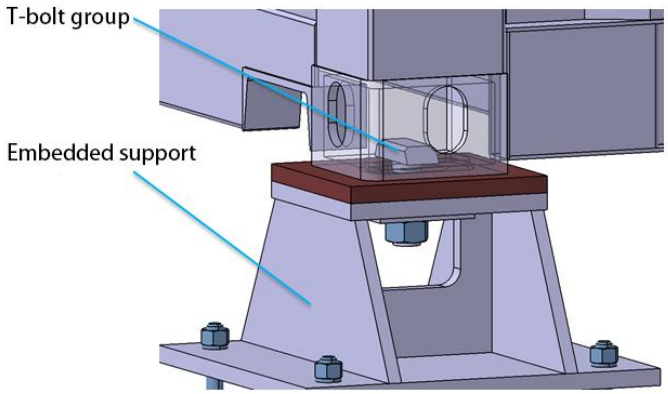



Figure 6-2-4-1 (2) Schematic diagram of container fixing by bolt connection

### 6.2.4.2 Ground Connection for Liquid-cooled Container

The bolt fixing point of the container is reliably connected with the non-functional conductor of the whole container. In addition, the container provides two box grounding points and two equipment grounding points in the form of grounding bars, and the grounding points provided to users must form reliable equipotential connection with the non-functional conductor of the whole container. The effective cross-sectional area in the grounding system is not less than 250mm² Grounding resistance ≤4Ω and connection impedance ≤0.1Ω.

There is a grounding bar inside the container, and the ground wires of battery cabinet and integrated cabinet are connected to the internal grounding bar, which is led out to external grounding equipment.

The top of the container is equipped with a high-quality lightning protection system with reliable connection. The lightning protection system is connected to the main grounding network at two different points through grounding flat steel or grounding round steel, and the effective cross-sectional area of the conductor in the grounding system is determined when the subsequent drawings are confirmed.



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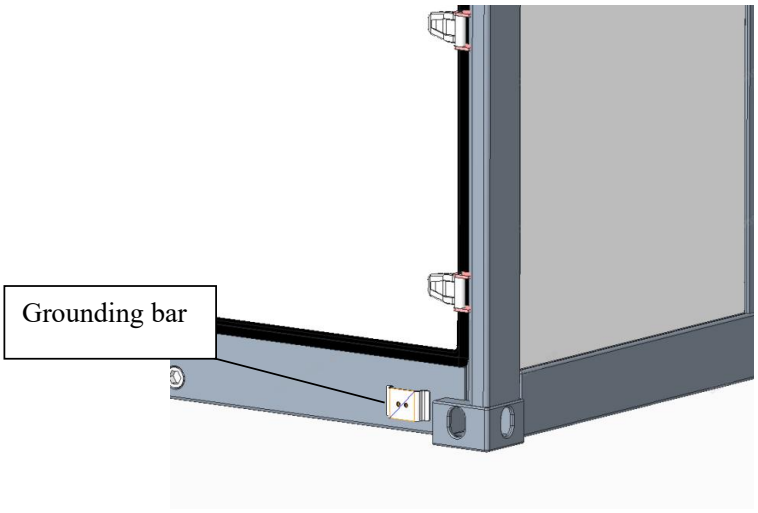



Figure 6-2-4-2 schematic diagram of container grounding bar position、

## 6.3 Electrical Connections

### 6.3.1 Precautions for Electrical Safety

| | |
|---|---|
| **Danger** | High voltage danger! Danger of electric shock!<br>➢ Do not touch energized parts!<br>➢ Make sure that the AC and DC sides are not energized before installation.<br>➢ Do not place the device on flammable surfaces. |
| **Warning** | The entry of wind and sand and moisture may damage the electrical equipment within the energy storage system or affect the operational performance of the equipment!<br>➢ Avoid electrical connection work during the sandy season or when the relative humidity in the surrounding environment is greater than 95%.<br>➢ Start the connections when there is no sand and the weather is clear and dry. |
| **Warning** | ➢ Before wiring, it is necessary to check the polarity of all input cables to ensure that each input polarity is correct.<br>➢ During electrical installation, do not pull on cables or wires as this may lead to damage on insulation.<br>➢ Take the necessary auxiliary measures to reduce the stress on the cables or wires.<br>After each step of the cable connection, it is necessary to ensure that the wiring is correct and secure. |



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| | |
|---|---|
| **Warning** | When an external short-circuit occurs in the RACK circuit and the high-voltage box fuse generates a protective action, the fuse in the high-voltage box must be replaced. |

## 6.3.2 Preparation before Cable Connection

### 6.3.2.1 Preparation for Installation Tools

| No. | Tool | Legends |
|---|---|---|
| 1 | Insulated gloves |  |
| 2 | Safety goggles |  |
| 3 | Insulated shoes |  |
| 4 | Working clothes |  |
| 5 | Safety Helmets |  |
| 6 | Screwdrivers |  |



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| | | |
|---|---|---|
| 7 | Wire Strippers |  |
| 8 | Hydraulic Clamp |  |
| 9 | Heat guns |  |
| 10 | Multimeters |  |
| 11 | Torque wrenches |  |
| 12 | Marker pens |  |



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### 6.3.2.2 Preparation for Cable

The cable selected must follow the below conditions:

- Have adequate current-carrying ability. The current-carrying ability of the conductor includes, but is not limited to, the following factors:
  - Environment conditions
  - Type of conductor insulation
  - The way to lay the cable
  - Cable material and cross-sectional area
- The cable diameter must be selected for the maximum current carrying ability and the length must be allowed for.
- All DC input cables should be of the same specification and material.
- All DC input cables should be of the same size and material. 3-phase AC output cables should be of the same size and material.
- Flame-retardant cables must be selected.

| | |
|---|---|
| **Note** | The cables used should comply with the local laws and regulations.<br>The cable colors shown in the illustrations in this manual are for reference only, please select cables according to local cable standards. |

## 6.3.3 Container wiring design

1) The installation of battery cabinets in the container and wiring between cabinets are neat and reliable, their layout is reasonable, and their electrical insulation meets the relevant standards.

2) The wiring of the power cable (red) of the electric cabinet in the container is placed separately from the secondary control wire and communication wire (green), which is beautiful and orderly and avoids interference.

3) The power cable of the container's electric cabinet goes out from the bottom of the battery cabinet and is connected to the DC circuit breaker of the integrated cabinet through the trough at the bottom of the container .See the following figure.



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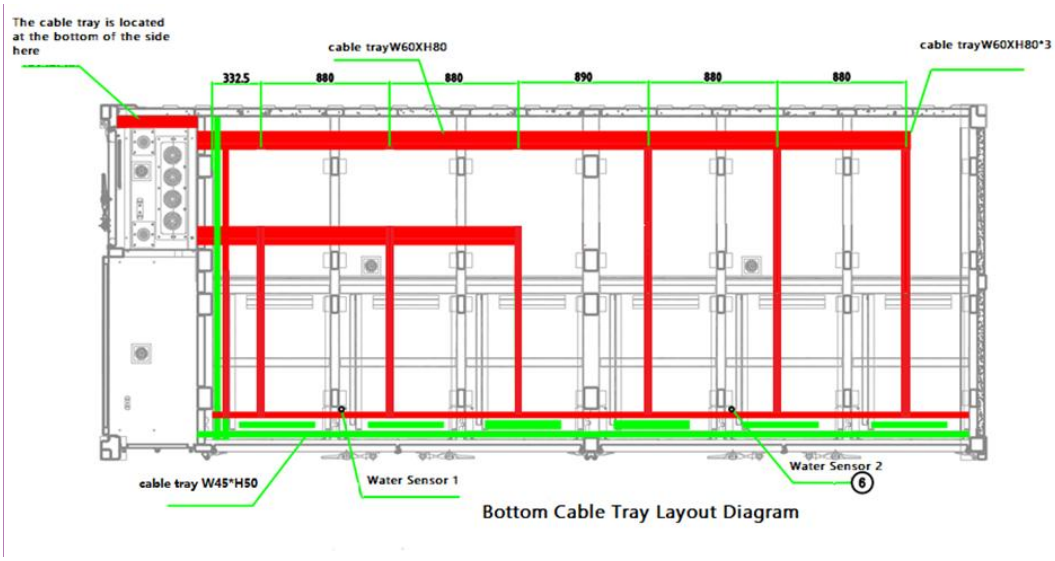



Figure 6-3-3 Schematic diagram of the layout of power lines and signal lines in the container.

### 6.3.3.1 Schematic Diagram for the Hole at the Bottom of the Liquid-cooled Container

The bottom of the energy storage container is equipped with a DC power cable inlet on the PCS side, an external communication line port, and an external auxiliary power supply port, with detailed hole locations and hole sizes shown in Figure 6-3:

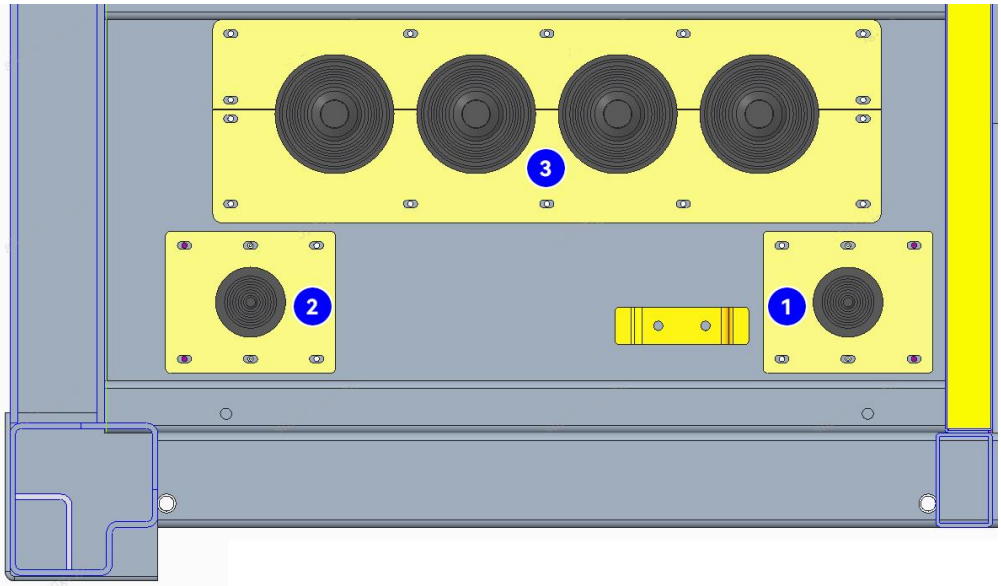



Figure 6-3-3-1 Schematic diagram of the hole at the bottom of the liquid-cooled container



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| NO. | Name | Quantity | Remark |
|---|---|---|---|
| 1 | External auxiliary power cable port | 1 | Hole diameter: 60mm |
| 2 | Communication cable port | 1 | Hole diameter: 60mm |
| 3 | DC power cable port on PCS side | 4 | Hole diameter: 120mm |

### 6.3.4 Interface Diagram for Integrated Cabinet

1) Power interface

A power connection port connected to PCS is reserved in the container, which is located at the terminal of the integrated cabinet .See the following figure:

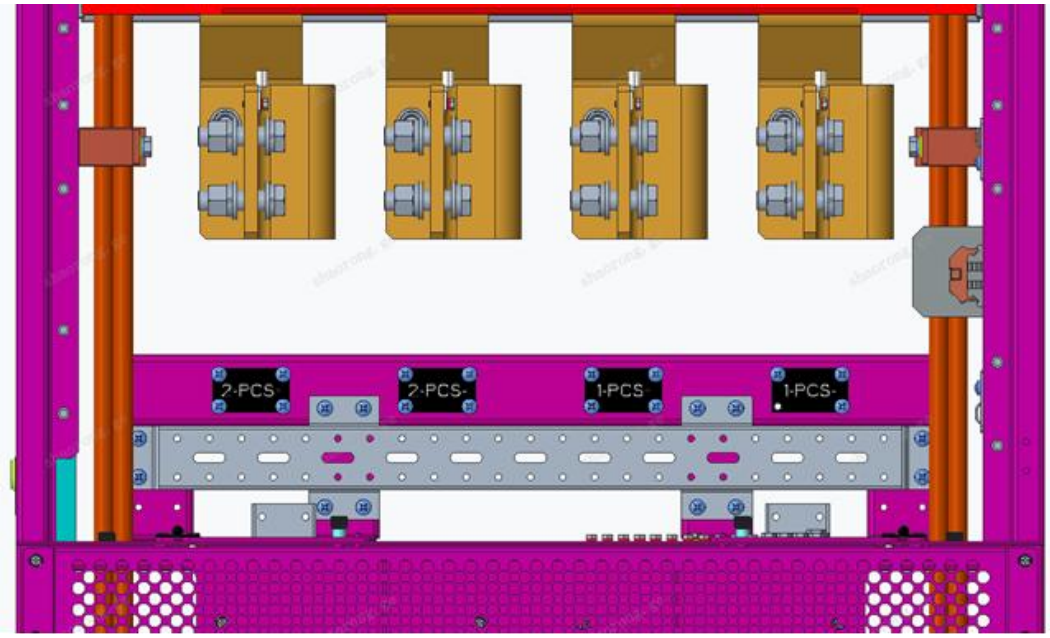



Figure 6-3-4 External power connection port of confluence cabinet

2) Communication interface

The container is externally designed with a unified communication interface and external communication. The external communication interface includes RS485 and CAN communication interfaces, as shown in the table below.

| No. | Communication equipment | Communication interface | Communication protocol | Remarks |
|---|---|---|---|---|
| 1 | External monitoring (EMS) by the battery monitoring system | LAN | MODBUS | |



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| | | | | |
|---|---|---|---|---|
| 2 | BMS to PCS | CAN<br>RS485<br>LAN | CAN2.0B<br>Modbus | |

The internal wiring of the liquid-cooled energy storage system cabinet has been completed before shipment, and users only need to connect the external wiring. The external interfaces of the integrated cabinet include DC side cable wiring holes, external auxiliary power supply interface and external communication ports, and the specific cable connection port instructions are shown as Table 6-3-4：

Table 6-3-4 Instructions for Cable Connection Port on Integrated Cabinet

| No. | Name | Recommended Model | Remark |
|---|---|---|---|
| 1 | DC output cable | **UL**: Copper cable,, 24 pieces 300kcmil AWG/DC 2000V<br>**IEC**: Copper cable,, 24 pieces 150mm$^2$/DC1500V | 2 DC outputs，Positive and negative poles for 6 each |
| 2 | External communication lines (RS485, CAN) | **UL**: 2*18AWG（Shielded twisted pair cable）<br>**IEC**: 2*1mm$^2$（Shielded twisted pair cable） | per design drawings |
| | External signal wire (dry contact) | **UL**: 2*2*16AWG<br>**IEC**: 2*2*1.5mm$^2$ | 2 dry contact signal point，per design drawings |
| | External network port | Ultra 5 network cable | per design drawings |
| 3 | Power supply port for Auxiliary | **UL**: 5*2AWG，Three-phase five line，400VAC<br>**IEC**: 5*50mm2，Three-phase five line，400VAC | per design drawings |

**Note: If the cable specifications used at the project site are not consistent with those recommended by our company, and If you encounter any technical difficulties or have questions during the installation process, please contact our Jinko Service Team promptly.**



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### 6.3.4.1 Interface Port for DC Cable

The location and size of the DC cable connections are shown as Figure 6-3-4-1:

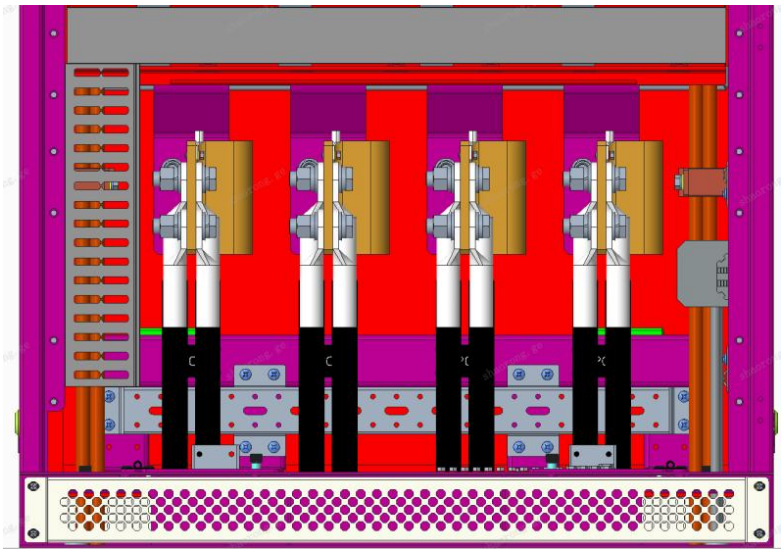


Figure 6-3-4-1 (1) Interface Port Schematic diagram of DC cable on integrated cabinet

Recommended terminal block models for DC cables are shown as Table 6-4:

Table 6-4 Recommended Terminal Block Models for DC Cable

| NO. | Item | Description |
|---|---|---|
| 1 | DC Cable Connection | **UL**: 24 pcs of 1* 300kcmil AWG copper core power cables,<br>**IEC**: 24 pcs of 1* 150mm$^2$ copper core power cables,<br>2 DC outputs, 6 pcs of which are connected to DC+ copper row, 6 pcs of which are connected to DC- copper row, a total of 6 M16*60 bolts with performance grade 8.8, 12 pcs of spring washers, 12 pcs of flat washers and 6 pcs of M16 hexagonal nuts with performance grade 8 are used to lock the terminals and the copper rows, and a No. 24 socket wrench is used to fasten them, and the recommended value of the fastening torque is: 119~140N·m. |
| 2 | Type for Terminal block | **UL**: DT-150-16<br>**IEC**: DT-150-16 |

**Note: If the cable specifications used at the project site are not consistent with those recommended by our company, and If you encounter any technical difficulties or have questions during the installation process, please contact our Jinko Service Team promptly.**



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Where the cable is connected to the copper row specification, is shown as Figure 6-3-4-1（2）：

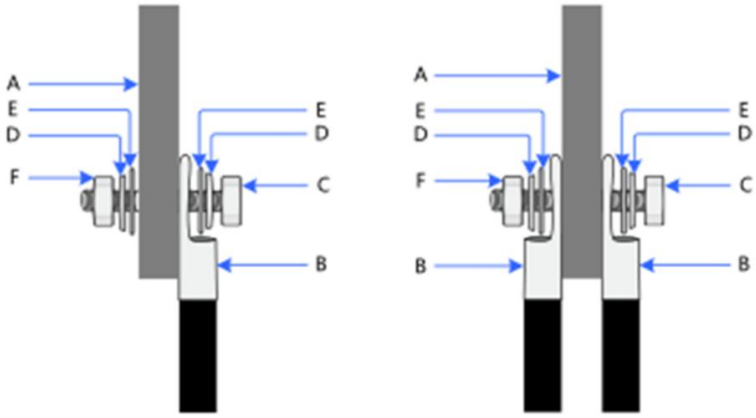



Figure 6-3-4-1(2)Standardized Graph for Connection between Cable and Copper

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| Copper Bar | Copper nose | Screws | Spring washer | Flat washer | Nut |

## 6.3.4.2 Connection Steps for DC Cable

**Step 1:** Confirm that each output switch in the front and rear stages of the integrated cabinet is disconnected;

**Step 2:** Strip off the insulating skin at the end of the cable, the length of the insulating skin stripped off at the end of the cable should be the depth of the crimping hole of the wiring copper nose plus about 5mm;

**Step 3:** According to the selected cable specifications, equipped with the appropriate wiring copper nose crimping;

1) Be stripped of the exposed copper core part of the wire into the crimp hole of the copper nose of the wire.

2) Crimp the wiring copper nose with terminal crimping machine, the number of crimps should be in more than two channels.

**Step 4:** Installation of heat shrink tubing;

1) Select and cable size in line with the heat shrink tubing, heat shrink tubing length should be beyond the wiring copper nose crimp tube about 2cm or so

2) The heat shrink tubing in the wiring copper nose, to completely cover the wiring copper nose pressure line hole is appropriate

3) Heat the heat shrinkable tube with the heat gun making it shrink by heat.

**Step 5:** Cable connection

Match the wiring copper nose with screws, spring washers, flat washers and nuts to connect and fix with the wiring copper row, and lock it according to the recommended torque.



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### 6.3.4.3 Interface Port for AC Cable (Auxiliary Power Supply)

Integrated cabinet provides external auxiliary power supply interface, location for cable connection is shown as Figure 6-3-4-3, the site needs to be according to the electrical wiring diagram for the corresponding wiring work.

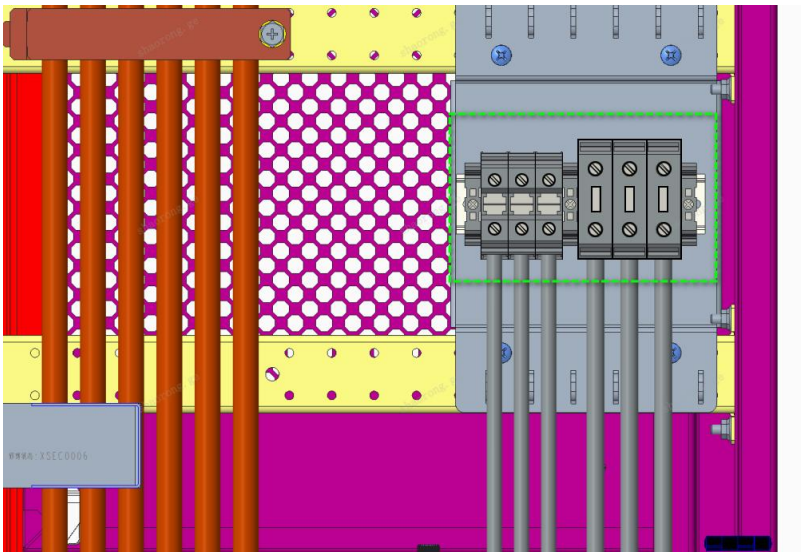


Figure 6-3-4-3 External Interface for Auxiliary Power Supply on Integrated Cabinet

### 6.3.4.4 External Interface for Communication

There provides an interface with external communication in the Integrated cabinet, the location of which is shown as Figure 6-3-4-4, corresponding cable connection needs to be carried out on site as per the electrical connection diagram.



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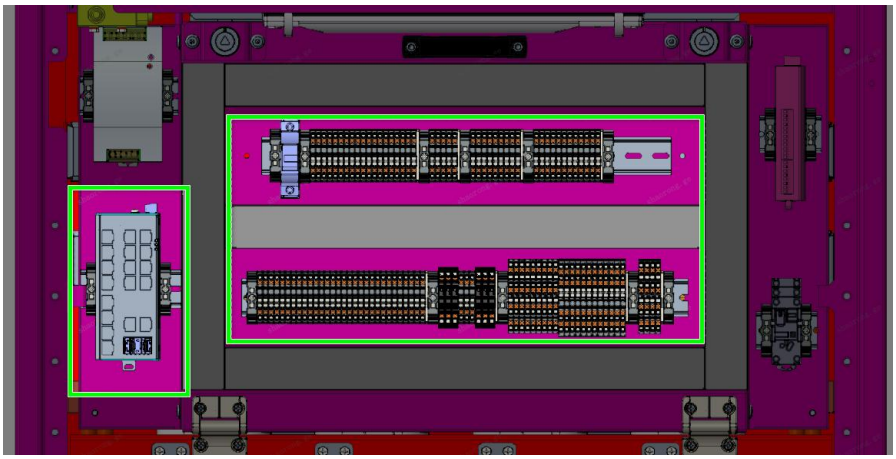


Figure 6-3-4-4 Interface for Communication Control and with the northbound communication fiber optic interface between Integrated cabinet and external PCS

### 6.3.4.5 Procedure for Cable Connection between External Cable on Auxiliary Power Supply and Communication

**Step 1:** Pass the external cable for auxiliary power supply through the threading hole at the bottom of the container, use a screwdriver to connect it with the terminals reserved on the left side of the bottom of the integrated cabinet, and confirm that the connection is finished, and then fix the cable on the corresponding cable tie bracket with a cable tie (nylon);

**Step 2:** Connect the communication control interface of the external PCS to the X7/X8 terminals inside the integrated cabinet with twisted shielded cable;

**Step 3:** Connect the station-level EMS to the network switch fiber optic interface in the integrated cabinet with fiber optics.

## 6.3.5 Check for Cable Connection

1) Before officially powering on, check the cables connected to the whole system to make sure that the cables are connected reliably and there is no aging and breaking as well as insulation damage;

2) Check whether the positive and negative DC power cables of the integrated cabinet are connected;

3) Check whether the AC power supply cable of the integrated cabinet is connected in the correct phase sequence;

4) Check whether all communication cables are connected and reliably to the connection terminals.



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### 6.3.6 Operation after Cable Connection

After all electrical cables are connected, the following actions should be took:

- Please do comprehensive inspection on all cables connected to ensure that there is no leakage and looseness.
- Tightly seal the holes and gaps around the integrated cabinet with fireproof and waterproof materials.
- Restore the protective cover firmly.

Check container to ensure that no any tools or equipment are left in the container.

| | |
|---|---|
| **Warning** | Failure to seal properly may result in ingress of moisture and sand. Failure to seal properly may result in the entry of rodents. |

Lock the door of cabinet and container

**Step 1 :**Reinstall the removed wiring zone guards in the reverse order of removal.

**Step 2:** Once the wiring zone guards have been installed, lock the door of integrated cabinet, remove the key and keep it in store.

**Step 3:** Finally, lock the door of the electrical compartment, remove the key and keep it in store.

| | |
|---|---|
| **Note** | Ensure that the sealing strips around the cabinet and box doors are not broken or torn.<br>Ensure that the sealing strips around cabinet and box doors are not curled when the doors are closed. |

## 6.4 Cable Connection between Battery

### 6.4.1 Precautions

#### 6.4.1.1 Hazard for Electric Shock

- It is not allowed to operate the equipment under status of power on;
- Ensure that neither the AC nor DC side of the equipment is energized before installation;
- Ensure that the necessary protective equipment has been worn during installation.



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### 6.4.1.2 Impacts for Environment

- It is not allowed to do connection on device in environments where the ambient humidity is greater than 95%;
- It is not allowed to do connection on device in environments with high wind and sand;
- It is not allowed to do connection on device in environments with corrosive and flammable gases.

### 6.4.1.3 Requirements for Cable Connection

- Please connect the primary and secondary connected cables to the equipment then do confirm on following the connection schematic;
- Ensure the correct polarity of the cables when connecting to prevent short-circuit and other dangerous situations;
- During connection of the equipment, do not pull the cable with force, so as not to lead damage to the terminals and cable insulation layer;
- After each step for cable connection is done, it is necessary to check for proper and secure connection.

## 6.4.2 Cable Connection

Preparation for tools

| NO. | Tool | Legends |
|---|---|---|
| 1 | Insulated gloves |  |
| 2 | Protective mask |  |
| 3 | Insulated shoes |  |
| 4 | Working clothes |  |



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| | | |
|---|---|---|
| 5 | Power cable |  |
| 6 | Communication cable |  |

**Step1：** It is necessary to wear protective equipment such as insulated gloves and insulated shoes before connecting power cables;

**Step2：** Open the door of battery compartment and prepare each rack of cables for connection. Turn the DC circuit breaker of high voltage box to the OFF position before connecting the power and communication cables between the PACKs and between the PACKs and the high voltage box;




Figure 6-4-2 (1) Image of DC circuit breaker for high voltage box

**Step3：** Connect the communication cables between PACKs and high voltage box with a Rack as example:

1) Insert the connector of communication cable into the COMM interface on communication cable of battery PACK1~PACK4 respectively;



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Figure 6-4-2 (2) Image of communication cable connector on HV BOX

2) Plug the communication cable connector into the slave connector of the high voltage box;




Figure 6-4-2 (3) Image of communication cable connector on HV BOX

**Step4**：Connect the power cables between PACKs and the high voltage box, with a RACK as example:

1) Connect the positive terminal B+ of PACK1 to the negative terminal B- of PACK2;
2) Connect the positive terminal B+ of PACK2 to the negative terminal B- of PACK3;
3) Connect the positive terminal B+ of PACK3 to the negative terminal B- of PACK4;
4) Connect the positive terminal B+ of PACK4 to B+ of the high voltage box;
5) Connect the negative terminal B- of PACK1 to B- of the high voltage box;

**Step5**：After the cable connection, it is necessary to check for ensure that the wiring is correct and solid.



Figure 6-4-2 (4) Image of communication and power cables between PACKs inside the Rack



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Figure 6-4-2 (5) Image of the communication and power cables between the PACK and the high voltage box inside the Rack.




Figure 6-4-2 (6) Image of communication and power cables in Rack

| | |
|---|---|
| **Warning** | •The color of Positive plug is orange, for negative plug is black.<br>•The positive terminal of the plug needs to be inserted into the positive connector and the negative terminal of plug needs to be inserted into the negative connector.<br>•When the plug is tightly inserted, The sound of "click" will be heard, which means that it is firmly connected. |



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# 7. Product Operation

## 7.1 Liquid-cooled Energy Storage System Power-up Process

### 7.1.1 Pre-power-up Check

1）Check that the DC circuit breaker on the high voltage box panel is in the disconnected state;




Figure 7-1-1 (1) HV BOX circuit breaker

2）Check that the series power cables are connected reliably between the battery PACKs of each rack and between the battery PACKs and the high voltage box;



Figure 7-1-1 (2) Power cable connections

3）Check that all communication and power supply cable connection terminals are securely connected;



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4) Check that the communication and power harnesses as well as the power cables are properly connected on the high voltage box;

5) Check the LAN port connections in the integrated cabinet for problems.




Figure 7-1-1 (3) LAN port

### 7.1.2 Liquid-cooled Energy Storage System Power-up Procedure

**Note:** For all the switch details, please refer to the below table.

**Step 1:**

1) Close the AC side main circuit breaker in the integrated cabinet QF207;

2) Close the liquid-cooled system switch QF209;

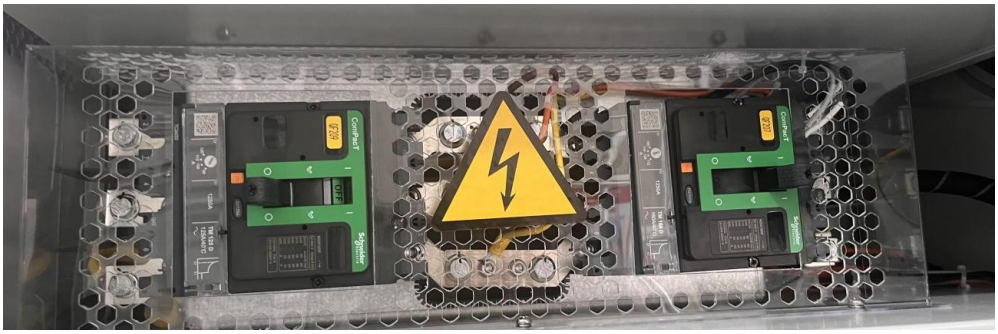


Figure 7-1-2 (1) QF207&QF209

3) Close the UPS switch QF221;

4) Close the fire main switch QF223;



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5) Close operation control system switch QF227;

6) Close the BMS I/O switch power switch QF224;

7) Close the video surveillance system switch QF221.1;

8) Close the fire ventilation system switch QF222;

9) Close the high voltage box power supply switch QF227.1;

10) Close the HVAC power switch QF216;

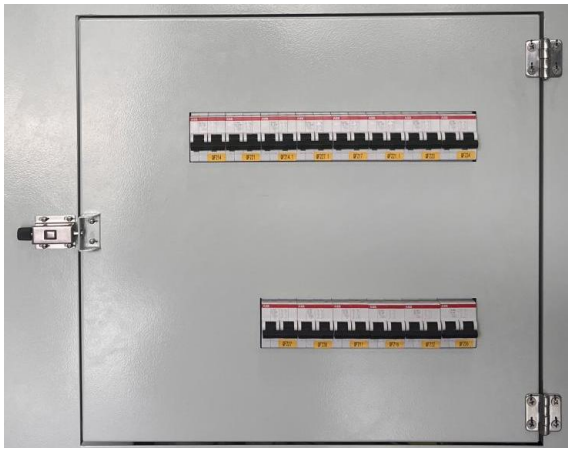


Figure 7-1-2 (2) Control Panel with switches of integrated cabinet

11) Starting the UPS power supply;

Long press for 3 seconds to light up the screen, and observe the screen to ensure that the UPS is working in main mode;




Figure 7-1-2 (3) UPS screen



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| No. | Name | Function |
|---|---|---|
| 1 | QF207 | AC side main Circuit breaker |
| 2 | QF209 | liquid-cooled system switch |
| 3 | QF221 | UPS switch |
| 4 | QF223 | Fire main switch |
| 5 | QF227 | Control system switch |
| 6 | QF224 | BMS I/O switch power switch |
| 7 | QF221.1 | video surveillance system switch |
| 8 | QF222 | fire ventilation system switch |
| 9 | QF227.1 | high voltage box power supply switch |
| 10 | QF216 | HVAC power switch |
| 11 | UPS | UPS Screen |

**Step 2：** Close the DC isolation switch of each high voltage box; then close the 220VAC power supply switch (the red button) of each high voltage box, and observe the status of the indicator lights on the high voltage box;

| No. | Name | Status | Instruction |
|---|---|---|---|
| 1 | Power indicator | Light up | Power supply to the high voltage box is normal |
| 2 | Fault indicator | Light up | System failure, including hardware failure, internal communication failure, battery failure, etc. |




Figure 7-1-2 (4) HV BOX-DC 1500V power on

**Step 3：** After the battery rack power-up is completed, the level 3 BMS automatically sends a close relay command to the level 2 BMS in the high voltage box, and the level 2 BMS will close the main positive and main negative DC relays after the self-test is completed, and the power-up of this rack is completed;

**Step 4：** After confirming that there are no faults in the Level 3 BMS and completing the above operations, the system enters the charging and discharging state.

***Note:** The corresponding device numbers may vary for different items, depending on the actual schematic diagram.



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## 7.1.3 Liquid-cooled Energy Storage System Power-down Procedure

**Step 1:** Disconnect the DC circuit breakers from each rack high voltage box;

**Step 2:**

1) Turn off the UPS power;
2) Disconnect the HVAC power switch;
3) Disconnect the high voltage box power supply switch;
4) Disconnect fire ventilation system switch;
5) Disconnect the video surveillance system switch;
6) Disconnect the BMS I/O switch power switch;
7) Disconnect the operator control system switch;
8) Disconnect the fire main switch;
9) Disconnect the UPS switch;
10) Disconnect the liquid-cooled system switch;
11) Disconnect the AC main circuit breaker in the integrated cabinet;

Note: For all the switch details, please refer to the below table.

| No. | Name | Function |
|---|---|---|
| 1 | UPS | UPS Screen |
| 2 | QF216 | HVAC power switch |
| 3 | QF227.1 | high voltage box power supply switch |
| 4 | QF222 | fire ventilation system switch |
| 5 | QF221.1 | video surveillance system switch |
| 6 | QF224 | BMS I/O switch power switch |
| 7 | QF227 | Control system switch |
| 8 | QF223 | Fire main switch |
| 9 | QF221 | UPS switch |
| 10 | QF209 | liquid-cooled system switch |
| 11 | QF207 | AC side main Circuit breaker |

***Note:** The corresponding device numbers may vary for different items, depending on the actual schematic diagram.

**Unplanned (Emergency) Power-down:**

Fire incident: immediately contact local fire department professionals for emergency assistance.

Unplanned Outage (Shutdown Due to Faults): For any faults leading to an unplanned shutdown, promptly contact JinkoSolar support services.

In an emergency, immediately press the emergency stop button on the BESS to halt the system's operation. Be aware that even after activating the emergency stop button, the auxiliary AC power supply of the BESS will remain live and carry voltage. Avoid contact with it!



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## 7.2 List of Commissioning for Energy Storage System

| No. | Test Item | Description | Results |
|---|---|---|---|
| 1 | Exterior Inspection | Box shell flat and the color is uniform | OK■ |
| 2 | | Clear marking, complete and correct silk-screening | OK■ |
| 3 | Check Screws | Check screws for looseness, slipped teeth, damage, etc. | OK■ |
| 4 | Confirmation of high-voltage connection circuit | Check that the positive and negative power cables in series between each rack of battery packs and between the battery packs and the high-voltage box are correctly connected and not reversed. | OK■ |
| 5 | Activation system | Close the DC circuit breaker of the high voltage box and the 220VAC power supply micro switch, and observe whether the power indicator on the high voltage box lights up. | OK■ |
| 6 | System self-test | Check the system self-test for alarms | OK■ |
| 7 | Software Version Confirmation | Verification system software version | OK■ |
| 8 | System High Voltage Closure | Close all high-voltage box, high-voltage relays and corresponding circuit breaker; measure whether the busbar voltage is normal or not. | OK■ |
| 9 | System High Voltage Calibration | Close all high voltage relays of the high voltage box, then the host computer calibrates the voltage | OK■ |
| 10 | System communication with PCS | Can PCS control the power up and down of the product | OK■ |
| 11 | Charge and Discharge Inspection | Small current charging and discharging of products via PCS | OK■ |



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# 8.Fire Fighting Instructions

| | |
|---|---|
| **Warning** | The energy storage system is equipped with an automatic fire extinguishing system, and the fire switch shall not be triggered arbitrarily in non-emergency situations. |

## 8.1 General Provision

Please comply with the fire codes and regulations of the country/region where the project is located.

Regularly inspect and maintain fire protection equipment to ensure that all functional indicators are normal.

## 8.2 Fire fighting system design

The fire fighting system of this project consists of fire alarm controller/gas extinguishing control panel, compound detector (involving combustible gas detection, smoke detection and temperature detection), audible and visual alarm, alarm bell, deflation indicator lamp, manual emergency start/stop button, container fire extinguishing device (including fire extinguishing agent storage cylinder, electromagnetic drive device and pressure annunciator), business box accessories (nozzle and high-pressure hose) and power supply box fire extinguishing device (including fire extinguishing agent storage cylinder, electromagnetic drive device and pressure annunciator).

| | |
|---|---|
| **Note** | To ensure the accuracy of gas detectors, combustible gas detectors need to be functionally tested and calibrated every 1 year. |

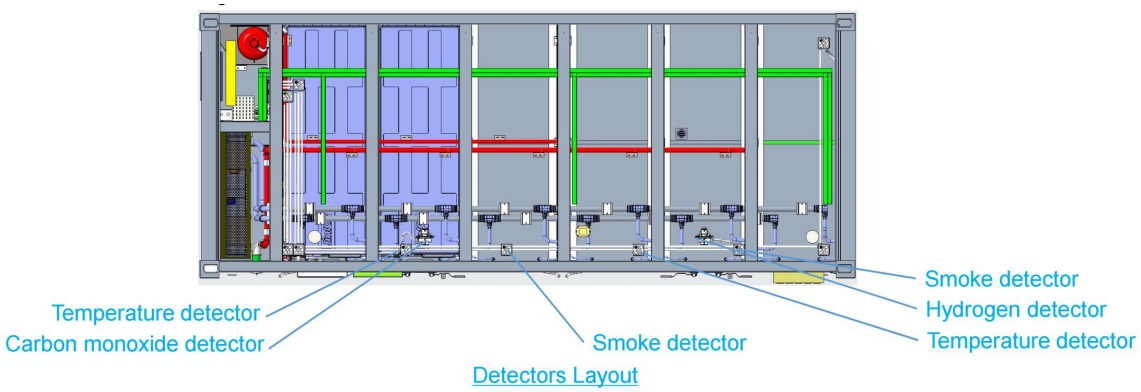



Figure 8-2 (1) Schematic diagram of fire protection system components



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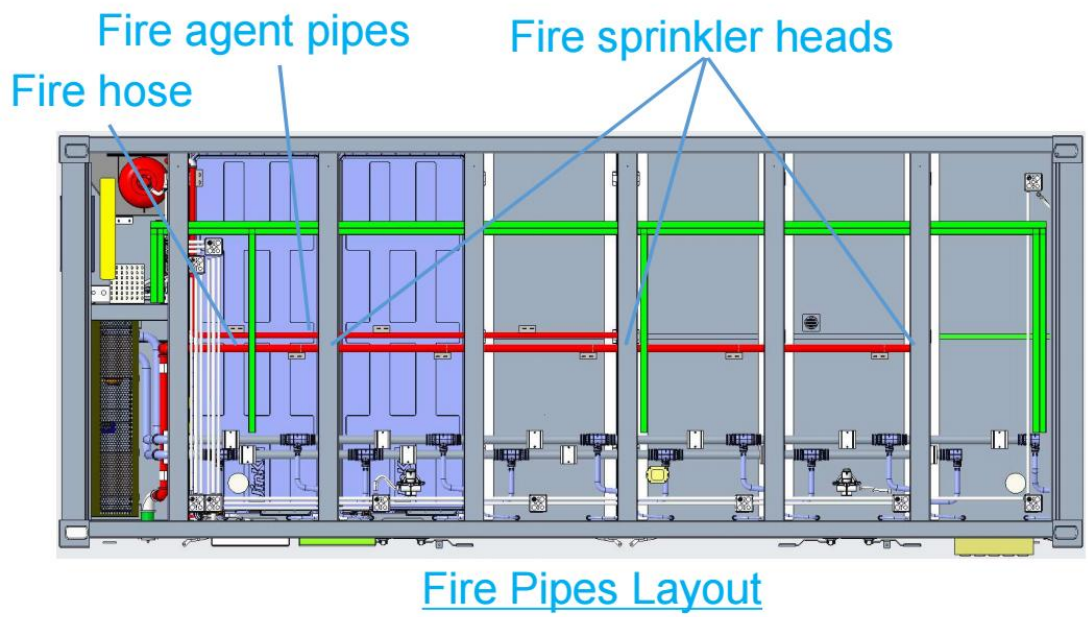



Figure 8-2 (2) Schematic diagram of fire detectors components

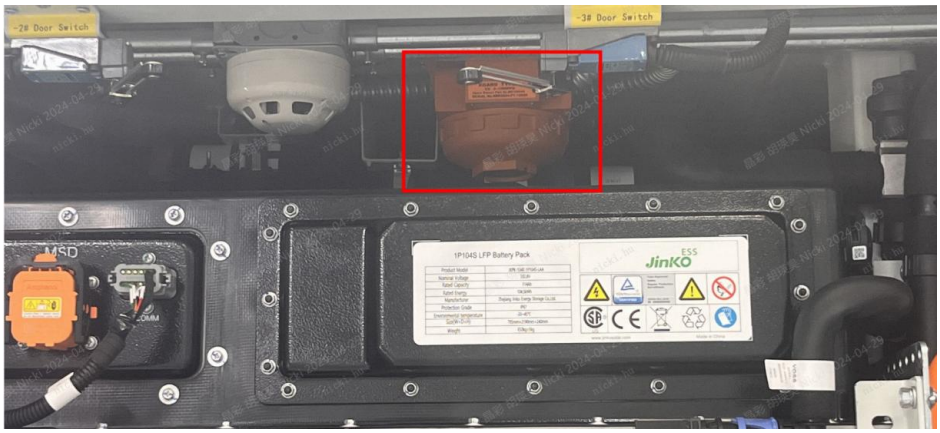



Figure 8-2 (3) Image of combustible gas detector



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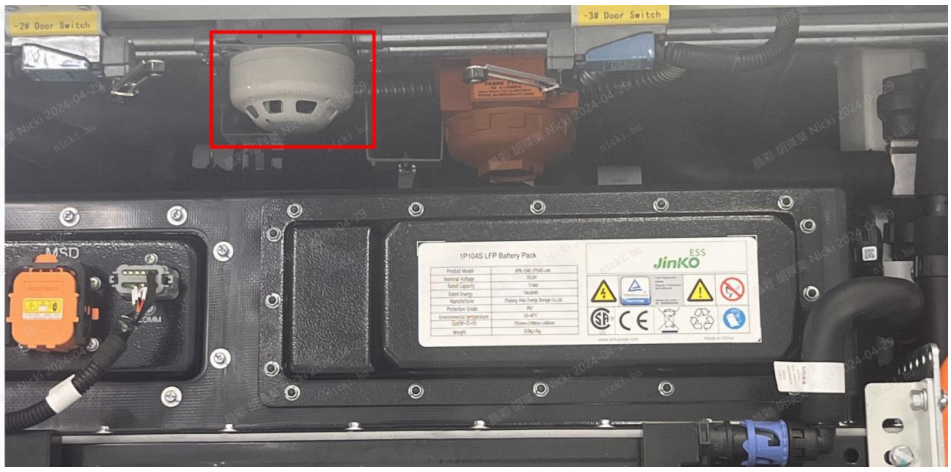



Figure 8-2 (4) Image of temperature detector




Figure 8-2 (5) Image of smoke detector



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Figure 8-2 (6) Image of fire control panel and gas cylinde

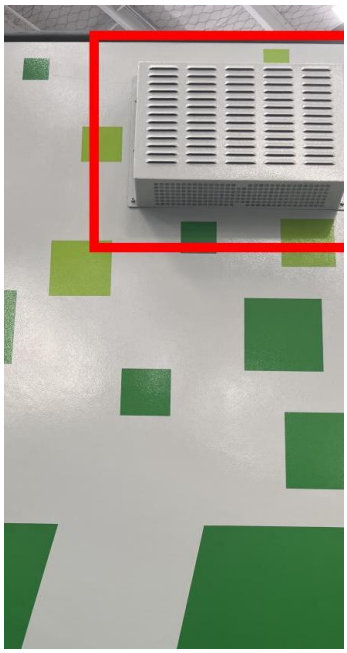


Figure 8-2 (7) Image of pressure relief port



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Figure 8-2 (8) Image of air inlet




Figure 8-2 (9) Image of air outlet




Figure 8-2 (10) Image of external DN65 water supply port for water fire fighting

* Please note: The image provided is for illustrative purposes only. The actual product may vary.



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## 8.3 Gas Fire Extinguishers

1) The fire extinguishing system has three starting modes: automatic control, manual control and mechanical emergency operation.

2) The fire extinguishing system can automatically detect a fire, give an alarm, automatically start, operate the related equipment interlocked with the system, and release the fire extinguishing agent.

3) The fire extinguishing system is equipped with automatic and manual operation change-over switch, which can change automatic operation into manual operation .The change-over switch and manual control of the system should be located in a place convenient for operation in each protection zone, and manual operation mode should be able to achieve all the operations of system startup in at least one place.

4) The fire extinguishing system is equipped with an independent emergency manual operation mechanism for emergency release of gaseous fire extinguishing agents when other operation modes fail. The emergency manual operation mechanism is mechanical and can achieve all operations of releasing fire extinguishing agents in one place.

5) The system has a self-checking system, which can automatically perform patrol inspection regularly, monitor faults and give fault alarms.

6) The battery prefabrication compartment is equipped with a fire control main .The fire control main should support various communication modes, can upload the working and early-warning status of detectors in the station, and can also communicate with BMS, EMS, PCS and other equipment in the station to provide a basis for the linkage of energy storage system; The fire detector sends an early warning signal to BMS, which sends the signal to the converter control loop. When a fault occurs, it can identify and inform the user while controlling the PCS to stop running.



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## 8.4 Water Fire Fighting System

As the last protective barrier of the fire fighting system, the water firefighting system is an artificially controllable independent fire protection system, with standard fire protection water interface (DN65) reserved outside the battery compartment, and the fire protection water pipeline inside the battery compartment is designed with variable-diameter steel pipe. The pipeline arrangement and the number of water sprinkler nozzles (3 nozzles) satisfy the NFPA 13 installation standard for sprinkler systems.

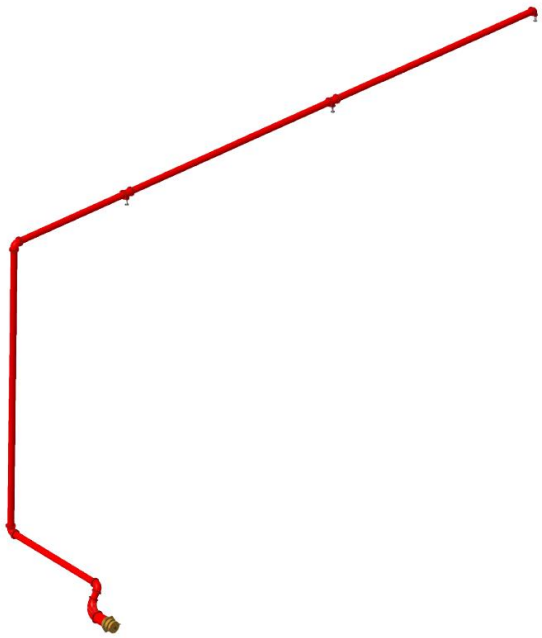


Figure 8-4 Schematic Diagram for Piping of Water Fire Fighting System



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## 8.5 Temperature Sensors

The Series DCD-190 Temperature Sensors utilize a dual thermistor network which provides a voltage output proportional to the outside air temperature.




Figure 8-5 Schematic diagram for temperature sensors on energy storage systems

## 8.6 Photoelectric Smoke Sensors

Series SOC-24V photoelectric smoke sensors utilize the light scattering principle to detect thermal runaway scenarios such as slow burning or smothering.



Figure 8-6 Schematic diagram for smoke sensors on energy storage system



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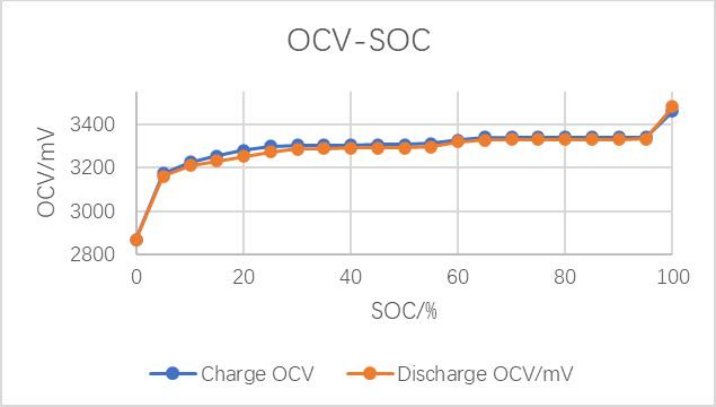
# 9. SOC Calibration instructions

## 9.1 SOC Correction

### 9.1.1 OCV Correction

When the battery stops charging and discharging, the polarization voltage of the battery will gradually disappear, and its open circuit voltage will gradually stabilize. At this time, the relationship between the stable open circuit voltage and its SOC is stable.

Therefore, when the battery relaxed time is greater than 1 hour, the SOC corrected value can be obtained by looking up the OCV-SOC table based on the cell voltage, thereby achieving the correction of the cell SOC.




### 9.1.2 SOC Correction during Charging Process

At the charging end, when the voltage of the battery cell reaches the set voltage threshold (such as 3.550V), the SOC is corrected to the set value.

### 9.1.3 Full Charge SOC Correction

During the charging process, when the highest cell voltage reaches the threshold of full charge voltage, the maximum voltage cell SOC is corrected to the set value.

### 9.1.4 Full Discharge SOC Correction

During the discharge process, when the minimum cell voltage reaches the threshold of full discharge voltage, the minimum voltage cell SOC is corrected to the set value.

## 9.2 SOC calibration mechanism

With the long-term operation of the energy storage system, the SOC error will continue to increase due to the collection accuracy of the battery self-discharge, process differences and current. If the energy storage system has not been fully charged-fully discharged or fully



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charged-fully discharged for a long time, SOC calibration is recommended to reduce the SOC error.

SOC calibration cycle: 3 months for peaking shaving application, 1 month for frequency regulation application.

## 9.3 Passive balancing strategy

The passive balancing is real-time balancing, and the average voltage and current of the cluster are delivered by BCU.

BMU performs the following:

1) Calculate the passive balanced average voltage. If the difference between cluster average voltage and module average voltage is less than 150mV, the cluster average voltage is used as the passive balanced average voltage; otherwise, the module voltage is used as the passive balanced average voltage.
2) Select the cell need to turn on passive balancing. If the cell voltage is higher than the passive balancing average voltage exceeds the balancing threshold, the passive balancing needs to be enabled.
3) According to the maximum number of batteries allowed to start, select the corresponding battery to start passive balancing according to the voltage from high to low. The balanced current is 100mA and cannot be set. The passive balancing start threshold is 20mV and cannot be set.

## 9.4 Passive balancing protection policy

Passive balancing of the following protection:

1) The single average temperature protection, temperature effective interval is 0℃~ 55℃ (can be set), if the single average temperature in the effective interval outside the balancing is not opened.
2) Monomer voltage upper and lower limit protection, monomer voltage effective interval 2200mV ~ 4000mV (can be set), if the monomer voltage outside the effective interval will not open the balancing.
3) Balancing Open state, it can be set the charging, discharging, open circuit. And it is allowed to open the passive balancing default full-stage open.
4) Balancing is forbidden to open when there is a fault of voltage collection harness dropping.
5) BCU disconnection judgment, if the BCU is disconnected, the balancing will be closed.

## 9.5 Balancing time sequence meets

After the balancing conditions are met, balancing is turned on 2s to stop balancing 4s. The single-unit voltage data is not updated during the balancing is turned on. The voltage data of the unit is not updated during the balancing period.

There are some BMU program versions that perform balancing timing according to balancing on 4s and off 2s. The two balancing timings do not affect the use, and there is no security risk.



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# 10. Battery System Maintenance Instructions

Explanation of terms

| No. | Term | Description |
|---|---|---|
| 1 | Normal operation | Refers to systems that work on a daily basis |
| 2 | Intermittent operation | Refers to a system that operates at a variable frequency per month and cannot be guaranteed to work on a daily basis |
| 3 | Unused for a long time | Battery systems that have not been started up and working for more than 3 consecutive months |

## 10.1 Pre-maintenance instructions

| | |
|---|---|
| **Warning** | ➢ Do not open the door of the battery container for maintenance in rainy, damp or windy weather. JinkoSolar will not be liable for any damages caused if you fail to do so.<br>➢ Avoid opening the container door under rain, snow or foggy days with high humidity. Please confirm that the sealing strip around the container door is not curled up while closing the container door. |
| **Warning** | ➢ To minimize the risk of electric shock, do not perform any other maintenance or overhaul operations beyond those in this manual.<br>➢ If necessary, contact JinkoSolar customer service personnel for maintenance and overhaul. |
| | In fair weather, it is recommended to open the container door to ventilate and dehumidify the equipment. |

## 10.2 Requirements for the use of the system

### 10.2.1 Uptime system usage requirements

- Do battery maintenance on the system once every 12 months to prevent damage to the battery, refer to section 10.4 for specific maintenance instructions.
- Perform an inspection of the system every twelve months (refer to 12.1 Inspection Items) and keep a record of the inspection.

### 10.2.2 Requirements for the use of interval operation systems

- Requirements for use are the same as for a normal operating system



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### 10.2.3 Requirements for use of systems that haven't been used for a long time

- SOC range of storage battery: 15%~40%, avoid long-term storage of battery cells below 15% SOC, and cut off power consuming equipment in time when the battery is not used for a long time.
- Perform an inspection of the energy storage system every 3 months (refer to 12.1 Inspection Items) and keep a record of the inspection.
- Perform battery maintenance on the system every three months to prevent battery damage.
- Before the first use of the system, at least one full charge is required to activate the battery system in order to restore the performance of the battery to its optimal state.

| | |
|---|---|
|  | Leaving the energy storage system unused for a long time can cause irreversible damage to the battery, so be sure to perform regular maintenance. |

## 10.3 Maintenance Precautions

Before the relevant personnel carry out maintenance and repair operations on the system, they must first disconnect the DC circuit breaker on the high-voltage box panel to ensure that the DC circuit breaker is in the OFF state and the firefighting is in the manual state, and after the maintenance and repair operations are completed, they need to ensure that the DC circuit breaker is in the ON state and the firefighting is in the automatic state.

## 10.4 Battery Maintenance

In order to ensure the long-term safe and reliable operation of the Liquid -cooled energy storage system, please read and comply with the following instructions for use：

Maintenance Procedure:

When the battery needs to be stored for a long time, the battery should be charged to 15-40% SOC and stored in a special site, and the storage conditions should meet the requirements of 4.3.

It is recommended that the battery be discharged and recharged once every 3 months during the long storage period to ensure that the battery SOC remains within the range of 15-40% SOC. It is recommended to check the specific situation of the battery in the system through BMS every 3 months, and the data can be shared to our company to help judge the battery status, with the maximum storage time not exceeding 6 months. Before the system is finally connected to the grid, if the ambient temperature is lower than 10℃, it is necessary to turn on the system to adjust the battery to normal temperature (25℃±3℃), and after resting for ≥10h, use 0.2C multiplier current to fully charge the battery cell once, and then charge and discharge the product under actual working conditions.



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| | |
|---|---|
|  | Check to make sure the environment is safe, the system is safe, and there are no alarms or malfunctions before performing battery maintenance operations |

## 10.5 Liquid -cooled System Maintenance

### 10.5.1 Electrical System Maintenance

The maintenance information of the Liquid-cooled electronic control system is shown in Table 10-1：

Table 10-1 Maintenance for Liquid-cooled Electrical System

| Maintenance Projects | Maintenance Standards | Maintenance Period | Detection method | Exception handling method |
|---|---|---|---|---|
| Reliability of wiring panel power cable and signal cable | No loose electrical cables and signal cables | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then tighten loose cables with a screwdriver. |
| | Electrical cable and signal cable without aging, damage, abnormal heat and other abnormalities | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then replace the power cable and signal cable. |
| | No dust at the wiring panel | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then clean the dust with a brush. |
| Maintaining the air switch in proper working order | Automatic clutching in case of circuit abnormalities (e.g. short circuit) | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then replace the maintenance air switch. The maintenance air switch is located in the electrical control box |



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| | |
|---|---|
| | The above maintenance intervals are only recommended values and can be adjusted according to actual planning. |

### 10.5.2 Cabinet Outlook Maintenance

The maintenance information for the appearance of the Liquid-cooled units is shown in Table 10-2：：

Table 10-2 Appearance maintenance of Liquid-cooled units

| Maintenance Projects | Maintenance Standards | Maintenance Period | Detection method | Exception handling method |
|---|---|---|---|---|
| Appearance of the unit | The unit is clean and free of dust and dirt | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then use a brush or cotton cloth to remove dust and dirt from the unit. |
| | The above maintenance intervals are only recommended values and can be adjusted according to actual planning. | | | |

### 10.5.3 Fan maintenance

The maintenance information for the liquid-cooled system fans is shown in Table 10-3：

Table 10-3 Liquid-cooled Unit Fan Maintenance

| Maintenance Projects | Maintenance Standards | Maintenance Period | Detection method | Exception handling method |
|---|---|---|---|---|
| Reliability of Fan Operation | No dust in the fan, no foreign body blockage at the air outlet | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then use a brush to clean the dust of the fan and clean the foreign matter at the air outlet |
| | Fan blades are not broken, turning the fan smoothly without strange noise | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then fasten the fan, check if there are internal cables and other |



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| | | | | |
|---|---|---|---|---|
| | | | | interference with the rotation of the fan, if the fan fails, please replace it. |
| | The above maintenance intervals are only recommended values and can be adjusted according to actual planning. | | | |

## 10.5.4 Condenser Maintenance

The condenser maintenance information for Liquid-cooled systems is shown in Table 10-4：

Table 10-4 Condenser maintenance for Liquid-cooled systems

| Maintenance Projects | Maintenance Standards | Maintenance Period | Detection method | Exception handling method |
|---|---|---|---|---|
| Condenser cleaning | Condenser free of dust and foreign matter blockage | 6 Months | Visual Inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then clean the condenser with compressed air or a vacuum cleaner with a brush head. |
| | The above maintenance intervals are only recommended values and can be adjusted according to actual planning. | | | |

## 10.5.5 Cooling Medium Maintenance

The maintenance information for the cooling media of the liquid-cooled system is shown in Table 10-5：

Table 10-5 Cooling media maintenance for Liquid-cooled systems

| Maintenance Projects | Maintenance Standards | Maintenance Period | Detection method | Exception handling method |
|---|---|---|---|---|
| Cooling Media | The concentration is in accordance with the range, PH and electrolyte concentration are required to meet the | 6 Months | Coolant tester visual inspection | Disconnect power and wait 10 minutes for any remaining energy to dissipate, then replace the coolant. |



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| | | | | |
|---|---|---|---|---|
| | requirements, no fouling, precipitation and algae, etc. | | | |

| | |
|---|---|
| | The above maintenance intervals are only recommended values and can be adjusted by the user according to the actual performance of the coolant. The maintenance interval of the coolant with better stability can be relatively longer. The procedure for replacing the cooling medium in the liquid-cooled unit is as follows.<br>1) Disconnect the power and wait at least 10 minutes.<br>2) Drain the fluid from the cooling system through the drain port.<br>3) Replenish the coolant and check the PH value and electrolyte concentration of the coolant. |
| Notice | Ethylene glycol is a substance that pollutes groundwater, so the equipment operator must comply with national and local regulations and must not . |

## 10.6 Maintenance for Fire Suppression System

Only regular fire system inspection can ensure the normal operation of the fire suppression system, and fire system maintenance content is shown in Table10-6：

Table 10-6 Fire protection system maintenance content

| Maintenance interval | Person type | Maintenance content |
|---|---|---|
| Weekly | Client | 1) Protected are a Daily cleaning<br>2) Visual inspection of the condition of pipes and nozzles<br>3) Cylinders Checking the pressure condition |
| Monthly | Client | 1) Protected areas (visual inspection)<br>- Daily cleaning<br>- Condition of pipes and nozzles<br>- Ensure protected areas are unaltered<br>- Inspection of blocking of doors or duct valves<br>2) equipment (visual inspection)<br>- Cylinders (gauges, supports, damage)<br>- Detectors (cleanliness)<br>- Hand pull starter (not blocked)<br>- Nozzles (not clogged)<br>3) Detection equipment (visual inspection)<br>- Make sure they are mounted in the correct |



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| | | |
|---|---|---|
| | | position<br>- Make sure they are not damaged<br>- Make sure they are clean and not covered with grease, dust paint or any other spoils.<br>4) Hand pull starters<br>- Make sure they have not been tampered with<br>- Ensure that the wiring to the pull starter is not obstructed.<br>5) alarm equipment<br>- Check for dust buildup<br>- Check for corrosion<br>- Check for damage<br>6) pipe network<br>- Ensure that the distribution network is securely installed.<br>- Ensure nozzles are installed in the correct position<br>- Make sure that the nozzle is not covered with dust, grease, or paint and that the spraying is not obstructed<br>7) all parts<br>- Look for signs of damage<br>- Look for disconnected parts and reconnect to the system<br>- Look for loose connections and tighten them<br>- Look for corrosion<br>- Look for twisted or dented parts<br>8) Cylinder head valve pressure gauge<br>- Check cylinder pressure and make sure it is within the operating pressure range.<br>9) cylinders<br>- Make sure all cylinders are securely mounted in the rack.<br>- Check for corrosion.<br>- Check for damage.<br>- Check for damage. Check for missing parts.<br>10) Starter<br>- Check that the starter is mounted in the correct position<br>- Check all starter lines<br>- Check that lines are not altered or disconnected |



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| | | |
|---|---|---|
| | | 11) pressure switches<br>- Ensure all pressure switches are installed<br>- Ensure all pressure switches are installed and in the correct "non-start" position.<br>12) control panel<br>- Visually check that the control panel and dispenser are functioning correctly (green light on during operation).<br>- If there is a fault (yellow light on), contact JinkoSolar After Sales Service. |
| Every 3 months | Maintenance personnel | Monthly inspection program plus performance testing of all valve actuator components, performance testing of all electrical equipment. |
| Every 6 months | Maintenance personnel | Maintenance program every 3 months plus check medication doses. |
| Every 12 months | Maintenance personnel | -Maintenance program every 6 months plus visual inspections<br>- All start-up and release hoses<br>- Protected area (sealing test) |



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# 11. Diagnosis of Common Abnormal Problems

## 11.1 System Alarm Handling

### 11.1.1 Liquid-cooled Unit Failure

#### 11.1.1.1 Fan failure

| Failure phenomenon | Possible causes | Inspection and maintenance |
|---|---|---|
| External circulation fan does not operate | Liquid-cooled unit not powered up | Check if there is power at the power input of the liquid-cooled unit. |
| | Have suffered a lightning strike, the circuit breaker tripped | Check if the circuit breaker inside the liquid-cooled unit is closed. |
| | Abnormal power input to the liquid-cooled unit (such as over- or under-voltage of the power supply) | Verify that the liquid-cooled unit has the appropriate alarms. |
| | The liquid-cooled unit is in standby mode | Normal scenario. The liquid-cooled unit is powered up and after 30s of standby, it enters the automatic control logic. |
| | Fan jamming | Check for foreign objects stuck in the fan. |
| | Loose terminal | Check if the fan plug is loose. |
| | Control board failure | Replace the control board |
| | Fan failure | Fan replacement |
| External circulation fan noise | Wind turbine bearing wear | Fan replacement |
| | Fan blades scrape other objects | Check if there are cables, etc. interfering with the fan blades. |



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### 11.1.1.2 Refrigeration System Failure

| Failure phenomenon | Possible causes | Inspection and maintenance |
|---|---|---|
| Compressor not started | Not powered on (standby) | Check the main power switch and check the operation display to see if the power is on. |
| | Loose circuit connection | Tighten circuit connector. |
| | Circuit open or short circuit | Check the circuit open or short circuit and repair the main power supply. |
| | Inverter failure | Inverter replacement |
| | Control board damage | Replace the control board |
| | Compressor motor failure | Replace the compressor. |
| Compressor does not work | No cooling requirement | Check the output status of the compressor for the discharge temperature on the display screen. Check that the operation interface is in the cooling state. |
| | Downtime delay | The compressor has a minimum stop time under normal conditions, and if the temperature rises to the on point during this time, the compressor will still turn on with a delay. |
| High exhaust pressure | Dirty condenser blockage | Clean the condenser with compressed air or a vacuum cleaner equipped with a brush head. |

### 11.1.1.3 Cooling Media Circulation System Failure

| Fault phenomenon | Possible causes | Inspection and repair |
|---|---|---|
| Internal circulation water ring pump does not start | Not powered on (standby) | Check the main power switch and check the operation display to make sure it is turned on. |
| | Loose circuit connection | Fasten the circuit connectors. |
| | Water pump inverter failure | Replace the pump inverter. |
| | Pump body failure | Replace the circulating water pump. |



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| | | |
|---|---|---|
| | | See "10.4 Replacing the electric heater and circulating water pump" for details. |
| Electric heater does not work | No heating requirement | Check whether the water outlet temperature and heating set point are set reasonably. |
| | Loose circuit connection | Fasten the circuit connectors. |
| | Electric heating overheating protection | Wait for a period of time and restart the electric heating, and observe whether the electric heating is working normally. |
| | Pipe electric heating failure | Replace the electric heater.<br>See "10.4 Replacing the electric heater and circulation pump" for details. |

## 11.2 Methods of handling emergencies

### 11.2.1 Fire Damage

**Step 1:** Evacuate the scene to a safe area, set aside a safe isolation zone, and call the police according to the scene.

**Step 2:** Under the condition of ensuring personal safety, conditionally carry out the following operations.

- If the wire harness smoke fire, use carbon dioxide or dry powder extinguisher to extinguish the fire.
- If you accidentally inhale smoke, please move and seek medical attention as soon as possible.

**Step 3:** Notify the system manufacturer for further processing advice.

| | |
|---|---|
|  | If the fire is caused by charging or discharging abnormality, make sure to turn off the power at the first time, and then execute the firefighting action. |

### 11.2.2 Flood Damage

**Step 1:** Evacuate the site to a safe area and set aside a safety quarantine area, regardless of whether the system is powered on or not.

**Step 2:** Notify the system supplier and wait for the water to fade before overhauling.

**Step 3:** Prohibit starting the system until the system manufacturer gives the result of the system safety determination.



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### 11.2.3 Battery drop/impact

- In case of obvious odour, damage, smoke, fire, etc., evacuate personnel immediately, call the police in time, and contact professionals, who will use firefighting facilities to extinguish the fire while ensuring safety.
- If the appearance is not obviously deformed or damaged, and there is no obvious odour, smoke, or fire, perform the operation under the premise of safety:

1) Warehouse: To evacuate personnel, professional personnel will use mechanical tools to transfer the battery to an open and safe place, and contact the company's service engineers, standing for 1h and monitoring the battery temperature within the range of room temperature ±10℃ after processing.
2) Energy storage system site: Evacuate personnel, close the door of the energy storage system, and let professional personnel use mechanical tools to transfer the battery to an open and safe place, and contact the service engineer of the company for 1h post-processing.



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# 12.Appendix

## 12.1 Inspection Program

| Inspection items | Inspection method | Yes/No | Abnormal records |
|---|---|---|---|
| Whether the fire extinguishing system is complete | Visual | | |
| Whether the fire extinguishing system is within the validity period | Visual | | |
| Whether the heat dissipation system is complete | Visual | | |
| Whether the air duct of the heat dissipation system is blocked | Visual | | |
| Whether the appearance of the electric cabinet is deformed | Visual | | |
| Whether the appearance of the electric cabinet is rusted and broken | Visual | | |
| Whether there is water vapor inside the cabinet | Visual | | |
| Is the low-voltage wire harness loose or broken | Visual | | |
| Is the high voltage harness loose or broken | Visual | | |
| Whether the wire harness interferes with structural parts | Visual | | |
| Whether the high voltage connection is corroded | Visual | | |
| Is the structure fixing bolt loose or | Visual | | |



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| | | | |
|---|---|---|---|
| missing | | | |
| Is the maintenance switch (MSD) complete and reliably installed? | Visual | | |
| Is the water cooling pipe broken | Visual | | |
| Is there any bad odor in the battery room? | Smell | | |
| Is there any irritating odor in the cabinet? | Smell | | |
| Is there a burnt smell in the high voltage connection area? | Smell | | |
| Is the summary data complete? | Monitoring HMI | | |
| Is the individual voltage data complete | Monitoring HMI | | |
| Is the monomer temperature data complete | Monitoring HMI | | |
| Alarm bar with or without abnormal alarm | Monitoring HMI | | |
| **Note:** If you find any abnormalities during the inspection process, please give feedback in time and contact the relevant personnel to arrange for processing! | | | |



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## 13.10 DEVELOPMENT PERMIT FOR A RECONFIGURATION OF A LOT - SUBDIVISION (1 LOT INTO 40 LOTS) OVER THREE (3) STAGES PLUS TWO (2) NEW ROADS AT LYSDALE ROAD WONDAI (AND DESCRIBED AS LOT 59 ON SP184725). APPLICANT: STUART JAMES NICHOLSON, CAMERON JAMES ANSELL AND SABRINA ELISE ANSELL C/- URBAN PLANET TOWN PLANNING CONSULTANTS

**File Number:** **RAL25/0044**

**Author:** **Manager Planning & Development**

**Authoriser:** **Chief Executive Officer**

### PRECIS

This is a report for a development application for a Development Permit for Reconfiguring a Lot – Subdivision (1 Lot into 40 Lots) Over Three (3) Stages plus Two (2) New Roads at Lysdale Road, Wondai (and described as Lot 59 on SP184725). The Applicants are Stuart James Nicholson, Cameron James Ansell and Sabrina Elise Ansell C/- Urban Planet Town Planning Consultants.

### SUMMARY

- The applicant seeks to create forty (40) rural lifestyle lots over three stages and propose to create two new roads (refer to **Table 2**).
- The subject site is 37.12ha in area and is located in the Rural Residential Zone (RR1 Precinct) under the South Burnett Regional Council (SBRC) Planning Scheme 2017 v2.0.
- The proposal was categorised as Impact Assessment as the proposal did not meet the minimum road frontage in accordance with dimensions in Table 5.6.1 of the SBRC Planning Scheme 2017 v2.0.
- Whilst the development application was assessed against the entire Planning Scheme, particular consideration was given to following provisions and Codes:
  - Strategic Framework;
  - Bushfire Hazard Overlay Code;
  - Rural Residential Zone Code;
  - Reconfiguring a Lot Code; and
  - Services and Works Code.
- The application was initially lodged on 14 October 2025. Council issued a Confirmation Notice on 28 October 2025 and an Information Request on 25 November 2025 seeking further information in relation to the proposed subdivision layout and road design, including amended plans for irregularly shaped allotments, building areas, road frontage dimensions and engineering detail relating to the proposed road alignment. The applicant responded satisfactorily to the Information Request. It was subsequently identified that the application had not been properly made due to incomplete owner's consent. Council therefore issued an Action Notice requiring complete owner's consent. Following receipt of the required owner's consent, Council re-issued the Confirmation Notice on 24 December 2025. No further Information Request was issued, as the relevant matters had already been addressed
- The application was referred to SARA for development that involves clearing native vegetation and the referral provided their response with conditions on 30 January 2026.
- Council did not issue an issued an Information Request.
- Public Notification was undertaken between 6 February 2026 and 27 February 2026 with 11 properly made submissions and 3 not properly made submissions being received. The applicant gave a Notice of Compliance with Public Notification Requirements on 4 March 2026.
- The development application has been assessed, and the proposal generally meets the requirements of the relevant Codes and provisions of the SBRC Planning Scheme 2017 v2.0 or has been conditioned to comply.
- Attachments:
  A – Statement of Reasons;
  B – Infrastructure Charges Notice;

C – Approved Plans;
D – Bushfire Assessment Management Plan;
E – BAL Assessment Report;
F – Ecological Assessment Report;
G – Preliminary Stormwater Management Report;
H – Water Network Analysis; and
I – Referral Agency Response.
J – Submissions Received

- The development application is recommended for approval subject to reasonable and relevant conditions

---

**OFFICER'S RECOMMENDATION**

The application for a Development Permit for Reconfiguring a Lot - Subdivision (1 Lot into 40 Lots) Over Three (3) Stages plus Two (2) New Roads at Lysdale Road, Wondai (and described as Lot 59 on SP184725), be approved subject to the following conditions and recommendation.

**ASSESSMENT MANAGER CONDITIONS**

**GENERAL**

GEN1. The development must be completed and maintained in accordance with the approved plans and documents and conditions to this development approval:

| Drawing No. | Drawing Title | Prepared By | Rev | Date |
|---|---|---|---|---|
| LYS-01 | Proposal Plan - Overview | – | 1 | 02/12/2025 |
| LYS-02 | General Layout and staging | – | 1 | 02/12/2025 |
| LYS-02A | Lot Dimension Overview | – | 0 | 02/12/2025 |
| LYS-02B | Lot Dimensions | – | 0 | 02/12/2025 |
| LYS-02C | Lot Dimensions | – | 0 | 02/12/2025 |
| LYS-02D | Lot Dimensions | – | 0 | 02/12/2025 |
| LYS-02E | Lot Dimensions | – | 0 | 02/12/2025 |
| LYS-03 | Intersection, Corver & Cul De Sac Details | – | 1 | 02/12/2025 |
| LYS-03A | Road Network Concept | – | 0 | 02/12/2025 |
| LYS-04 | Ecological Notes | – | 1 | 02/12/2025 |
| LYS-05 | Stormwater Concept | – | 1 | 02/12/2025 |
| LYS-06 | Building Constraints and Envelopes | – | 1 | 02/12/2025 |
| LYS-07 | On-site Sewerage Facilities | – | 1 | 02/12/2025 |
| LYS-08 | Electrical & Communications Services Report | – | 1 | 02/12/2025 |
| LYS-08 | Water Services Concept | – | 1 | 02/12/2025 |

**Approved Document**

| Document No. | Document Title | Prepared By | Rev | Date |
|---|---|---|---|---|
| 7-50-30 | Bushfire Assessment Management Plan | Ecosystems Management Pty Ltd | 1.0 | 15/08/2025 |
| 7-50-30_1 | BAL Assessment Report | Ecosystems Management Pty Ltd | 1.0 | 12/09/2025 |
| – | Ecological Assessment Report | Trend Environmental Consulatnts | – | September 2025 |
| – | Preliminary Stormwater Management Report | ATC Consulting Engineers | 3 | 29/09/2025 |
| SBRC47.8 | Water Network Analysis | Morris Water | 1 | 10/10/2025 |

Where there is a conflict between the conditions of this approval and the details shown on the approved plans and documents, the conditions of approval prevail.

**Timing:** At all times.

GEN2. Any new earthworks or structures are not to concentrate or impede the natural flow of water across property boundaries and onto any other lots.

GEN3. Dust prevention measures are to be undertaken to ensure that dust does not cause a nuisance to occupiers or adjacent premises, during and after construction.

GEN4. The Applicant is required to maintain the site in a clean and orderly state at all times, clearing of declared weeds and feral animals.

**VEGETATION BUFFER**

GEN5. The development must be carried out in accordance with the 'Building Constraints and Envelopes' plan dated 02/12/2025 (Drawing Number LYS–06 Rev. 2) as referenced at GEN1 of this conditions package. A vegetation buffer along the western boundary of Proposed Lot 29, 33, 34, 35 and 36, noting the following:

a. Twenty (20) metres wide in accordance with Councils Planting Guidelines and Branching Out Guide;
b. Consisting of at least two offset rows of trees;
c. Indicates the location and spacing of proposed trees and shrubs;
d. Includes a list of tree and shrub species to be planted; and
e. Includes details about how the vegetated buffer will be maintained.

**Comment:** Tree selection, buffer requirements, how the plantings are placed and spaced, irrigated and post planting care are to be in accordance with Council's Planting Guidelines and Branching Out Guide.

GEN4. At the time of sealing the survey plan the applicant shall provide written confirmation that the planted landscaped vegetated buffer complies with Council's Branching Out Guide and the planted landscaping on site which includes:

- The extent of the buffer;
- The location and spacing of proposed and any existing trees and shrubs;
- A list of tree and shrub species to be planted; and
- Details about how the buffer will be maintained.

**COMPLIANCE**

GEN6. All conditions of this approval are to be satisfied prior to Council endorsing the Survey Plan unless otherwise stated. It is the applicant's responsibility to notify Council to inspect compliance for conditions that are required to be satisfied prior to Council endorsing the Survey Plan.

A fee will be charged, with payment required prior to Council's approval of the associated documentation requiring assessment.

**OUTSTANDING FEES**

GEN7. Prior to sealing the Plan of Survey, the applicant is required to pay the Council all rates and charges or any expenses being charged over the subject land under any Act in accordance with Schedule 18 Section 69 of the Planning Regulation 2017.

**Timing:** As indicated.

**SURVEY MARKS**

GEN8. Prior to the sealing of the Plan of Survey the applicant is to provide a certificate signed by a licensed surveyor stating that after the completion of all works associated with the

reconfiguration, survey marks were reinstated where necessary and all survey marks are in their correct position in accordance with the Plan of Survey.

**Timing:** As indicated.

**ENVIRONMENT (BIODIVERSITY MANAGEMENT)**

GEN9. The development must be carried out in accordance with the Approved *Ecological Assessment Report* (EAR) prepared by *Trend Environmental Consultants* as referenced at GEN1 of this conditions package and noting the following:
At all times, Applicant is to ensure the development is carried out in accordance with the approved Ecological Assessment Report as referenced in Condition 1, including:

- Subdivision layout to be in accordance with the approved plan 'Ecological Notes' (Drawing Number LYS–04 Rev. 1);
  **Timing** – Prior to sealing of the survey plan.
- Subdivision works to be carried out in accordance with recommendations in Table 11 of Section 5.3 of the EAR (where relevant to Reconfiguring a Lot);
  **Timing** – Prior to sealing of the survey plan.
- Development to be carried out in accordance with recommendations in Table 11 of Section 5.3 of the EAR (where relevant to future development);
  **Timing** – Prior to the issue of a Building Approval for a Future Dwelling on the proposed lots.
- All future purchasers of the subject lots to be notified of ecological management requirements at time of sale and/or other method of disposal.

Provide certification to Council from an accredited ecologist professional which certifies that subdivisional works have been constructed in accordance with the ecological management conditions of this Development Approval.

**Timing** – Prior to sealing of the survey plan unless otherwise stated.

**ENVIRONMENT (BUSHFIRE MANAGEMENT)**

GEN10. The development must be carried out in accordance with the Approved *Bushfire Hazard Assessment* (BHA) prepared by *Ecosystems Management (Aust) Pty Ltd* as referenced at GEN1 of this conditions package and noting the following:

- Subdivision layout to be in accordance with the approved plan 'Proposal Plan Overview' (Drawing Number LYS–01 Rev. 1);
  **Timing** – Prior to sealing of the survey plan.
- Subdivision works to be carried out in accordance with recommendations in Section 5.1 of the BMP (where relevant to Reconfiguring a Lot);
  **Timing** – Prior to sealing of the survey plan.
- All lots are to retain or install access and egress in accordance with outcomes specified in Section 5.1 of the BHA; and
  **Timing** – Prior to sealing of the survey plan.
- All future purchasers of the subject lots to be notified of bushfire management requirements at time of sale and/or other method of disposal.

Provide certification to Council from an accredited bushfire professional which certifies that subdivisional works have been constructed in accordance with the bushfire management conditions of this Development Approval.

**Timing:** Prior to sealing of the Survey Plan unless otherwise stated.

**VALIDITY OF BUSHFIRE MANAGEMENT REPORT**

BMR1. Prior to sealing of the survey plan provide written evidence from an accredited bushfire professional that the approved Bushfire Management Report (BMR) and its recommendations are current and in accordance with the BMR disclaimer.

**Timing:** As indicated.

**STAGED DEVELOPMENT – RAL**

RAL1. The currency period for this development approval for reconfiguring a lot is six (6) years after the development approval starts to have effect. The development approval will lapse unless the Survey Plan for Stage 1 of the development required to be given to Council for approval is provided within this period.

RAL2. All stages must be completed within six (6) years of the development approval starting to have effect.

RAL3. Staging of the development is to occur in accordance with the staging indicated on the Approved Plan subject to and modified by any conditions of this Development Approval.

RAL4. Stages must be completed in sequential order (i.e. Stage 1 must be completed before Stage 2) as identified on the Approved Plan or may be combined and carried out at one time, subject to all conditions applicable to the relevant stages being complied with.

**LAPSE OF STAGED DEVELOPMENT STAGED APPROVAL**

RAL5. The development approval will also lapse if the survey plans for the remaining stages i.e., Stage 2 required to be given to Council for approval are not provided within six (6) years after the development approval starts to have effect.

**SURVEY PLAN ENDORSEMENT**

RAL6. Lodgement of Survey Plan Endorsement must include the following:

a. Completion of Council's Request - Approving Plan of Subdivision, Related Plans or Documents, Compliance with Conditions of Approval Form;
b. All survey marks in their correct position in accordance with the Survey Plan;
c. A compliance report demonstrating compliance with all associated Development Permit(s);
d. One copy of the Survey Plan, easement documentation each fully executed for the lodgement with the Titles Office;
e. Payment of any outstanding rates and charges in accordance with Schedule 18, Item 2(1)(c) of the Planning Regulation 2017; and
f. Payment of any outstanding Infrastructure Charges.

**Advisory Note:** *Council's Request - Approving Plan of Subdivision, Related Plans or Documents, Compliance with Conditions of Approval Form is found at Forms | South Burnett Regional Council.*

**VALUATION FEES**

RAL7. Payment of Department of Natural Resources, Mines, Manufacturing, and Regional and Rural Development valuation fees that will result from the issue of split valuations prior to Council sealing the Plan of Survey. The contribution is currently assessed at $55.00 per lot. However, the actual amount payable will be based on Council's Register of Fees & Charges and the rate applicable at the time of payment.

**Timing:** As indicated.

**ENGINEERING WORKS**
**ALL STAGES**

ENG1. Complete all works approved and works required by conditions of this development approval and/or any related approvals at no cost to Council, prior to Council's endorsement of the Survey Plan unless stated otherwise.

ENG2. Undertake Engineering designs and construction in accordance with the Planning Scheme, Standard Drawings, and relevant design manuals.

ENG3. Be responsible for any alteration necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

**LOCATION, PROTECTION AND REPAIR OF DAMAGE TO COUNCIL AND PUBLIC UTILITY SERVICES INFRASTRUCTURE AND ASSETS**

ENG4. Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG5. Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damages immediately upon completion of works associated with the development.

**STORMWATER MANAGEMENT**

ENG6. Provide stormwater management generally in accordance with the Preliminary Stormwater Management Report prepared by ATC Consulting Engineers, Version 3.0, dated 29/09/2025, subject to detailed design and except as altered by conditions of this development approval.

ENG7. Provide overland flow paths that do not alter the characteristics of existing overland flows on other properties or that create an increase in flood damage on other properties.

ENG8. Discharge all minor storm flows that fall or pass onto the site to the lawful point of discharge in accordance with the Queensland Urban Drainage Manual (QUDM).

ENG9. Adjoining properties and roadways to the development are to be protected from ponding or nuisance from stormwater as a result of any site works undertaken as part of the proposed development.

**WATER SUPPLY**

ENG10. Connect each lot to Council’s reticulated water supply system as per Council's standards.

ENG11. Design and construct all works in accordance with Council’s requirements as set out in the WBBUWA Design and Construction Code”, WSAA Guidelines and relevant development standards used by Council.

**VEHICLE ACCESS**

ENG12. Design and construct an access for each lot in accordance with Council's Standard Drawing No. 00049.

**Comment**: Accesses should be located at the Western or Southern end of the Lot frontages to encourage passive solar house design.

ENG13. Construct any new crossovers such that the edge of the crossover is no closer than 1 metre to any existing or proposed infrastructure including any stormwater gully pit, manhole, service infrastructure (eg power pole, telecommunications pit), road infrastructure (eg street sign, street tree, etc).

**STREET SIGNS AND LINE MARKING**

ENG14. Obtain written approval from Council for any works involving the removal or relocation of existing Council traffic signs prior to commencement of works.

ENG15. Install and/or relocate any street signs and/or line marking in accordance with the Manual of Uniform Traffic Control Device (MUTCD). Install new or relocated signage using the V-Lok installation system.

ENG16. Provide all new signage with Class 1 retro-reflective material in accordance with Australian Standard 1743 - Road Signs - Specification.

**ROADWORKS AND PEDESTRIAN SAFETY**

ENG17. Install signage for all works on or near roadways in accordance with the "Manual for Uniform Traffic Control Devices – Part 3, Works on Roads".

ENG18. Submit to Council, an application for any road or lane closures and ensure all conditions of that approval are complied with during construction of the works.

ENG19. Maintain safe pedestrian access along Council's footpaths at all times.

**TELECOMMUNICATION**

ENG20. Provide telecommunication services to each lot in accordance with the standards and requirements of the relevant service provider.

**ELECTRICITY**

ENG21. Provide electricity supply to all lots within the development to comply with Ergon Energy's requirements.

ENG22. Submit to Council, written confirmation from an electricity provider that an agreement has been made for the supply of electricity.

**STREET LIGHTING**

ENG23. Design and install street lighting to the full frontage of the site in accordance with AS/NZS1158 and the road classifications contained within this approval. Submit to Council, street light design plans showing the proposed public lighting system for Council's endorsement.

ENG24. Enter into an agreement with an electricity supplier to provide a public lighting system in accordance with the lighting design plans as required by the previous condition. Submit to Council, written confirmation from an electricity provider that an agreement has been made to provide a public lighting system.

**EARTHWORKS - GENERAL**

ENG25. Undertake earthworks in accordance with the provisions of AS3798 Guidelines on Earthworks for Commercial and Residential Developments.

ENG26. Ensure that each lot is self-draining.

**EROSION AND SEDIMENT CONTROL - GENERAL**

ENG27. Ensure that all reasonable actions are taken to prevent sediment or sediment laden water from being transported to adjoining properties, roads and/or stormwater drainage systems.

ENG28. Remove and clean-up the sediment or other pollutants in the event that sediment or other pollutants are tracked or released onto adjoining streets or stormwater systems, at no cost to Council.

**EASEMENTS**

ENG29. Lodge for registration at the office of the Land Registry, the following easement(s):

a. a stormwater drainage easement having a minimum width 3 metres/as shown on the approved plan(s) of development] or as determined in any approval for Operational Work, whichever is the greater, to the benefit of Council, that includes:
    i. all stormwater overland flow paths traversing the land;
    ii. any stormwater main existing or proposed to traverse the land centrally located within the easement;
    iii. any stormwater main existing or proposed to traverse the downstream land to an agreed lawful point of discharge centrally located within the easement; and
    iv. all stormwater overland flow paths downstream from the land to an agreed lawful point of discharge.

ENG30. The restrictions imposed (non-permanent fixtures) on the property within the drainage easement, will include:
a. a building (habitable or not), regardless of size;
b. a bridge or culvert;
c. a tower, mast, pillar, or post;
d. a wall or a fence (other than a dividing fence);
e. a shipping container or similar object;
f. a sculpture or statue;
g. a viaduct, railway line, roadway or path;
h. a swimming pool or a tank; or
i. anything else that may be reasonably characterised as a structure when placed upon land (whether by affixation or by resting upon its own weight).

**LAND DEDICATION**

ENG31. Dedicate, at no cost to Council, land shown on the approved plan of development identified as as follows:
    i. land identified as road must be dedicated as road reserve;
    ii. a 6 metre radius, 3 chord truncation on the corners; and
    iii. land identified as drainage must be dedicated as drainage reserve.

**STAGE 1**
**WATER – EXTENSION**

ENG32. Design and construct a 150mm diameter extension from the intersection of Hustons Road and Hines Road to service Stage 1 generally in accordance with Water Network Analysis, prepared by Morris Water, Version 1, dated 16/10/2025.

**Comment:** This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

ENG33. Install fire hydrant valves to ensure that all allotments are within a distance of 40 metres of the nearest hydrant.

ENG34. Provide isolation valves, hydrant markers and RPMs in accordance with WSAA Codes and Council's standards.

ENG35. Design and construct all works in accordance with Council’s requirements as set out in the WBBUWA Design and Construction Code and relevant development standards used by Council.

ENG36. Submit to Council, the written consent from the property owner where such works require entry onto adjoining land prior to Council's approval of Operational Work.

**ROADWORKS - INTERNAL/NEW ROADS**

ENG37. Design and construct the new roads identified as New Street 1 and New Street 2 on proposed plan/s of development for Stage 1, in accordance SBRC Planning Scheme

Policy SC6.2 PSP1 – Design and Construction Standards Table SC6.2.3, relevant Austroads Standards, and more specifically, include the following:

a. a prime and double/double seal;
b. provision for stormwater drainage, line marking, tapers to existing/new road pavements, signage, street lighting associated with the required road works and road reserve transitions between existing and proposed roads;

**Comment:** This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

ENG38. Construct a temporary gravelled surfaced turnaround to accommodate the turning movements of Council's refuse collection vehicle (HRV) at stage boundaries, with a length greater than a single lot frontage.

**PERMANENT SURVEY MARKS**

ENG39. Install one permanent survey marks (PSM) and connect to Australian Height Datum. Ensure that the PSMs are located and installed in accordance with the *Survey and Mapping Infrastructure Act 2003*.

**Timing:** Prior to Council's endorsement of the Plan of Survey for the applicable stage.

**STAGE 2**

**WATER – EXTENSION**

ENG40. Design and construct a 150mm diameter extension to service Stage 2 generally in accordance with Water Network Analysis, prepared by Morris Water, Version 1, dated 16/10/2025.

**Comment:** This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

ENG41. Install fire hydrant valves to ensure that all allotments are within a distance of 40 metres of the nearest hydrant.

ENG42. Provide isolation valves, hydrant markers and RPMs in accordance with WSAA Codes and Council's standards.

ENG43. Design and construct all works in accordance with Council's requirements as set out in the WBBUWA Design and Construction Code and relevant development standards used by Council.

ENG44. Submit to Council, the written consent from the property owner where such works require entry onto adjoining land prior to Council's approval of Operational Work.

**ROADWORKS - INTERNAL/NEW ROADS**

ENG45. Design and construct the new roads identified as New Street 1 on proposed plan/s of development for Stage 2, in accordance SBRC Planning Scheme Policy SC6.2 PSP1 – Design and Construction Standards Table SC6.2.3, relevant Austroads Standards, and more specifically, include the following:

a. a prime and double/double seal;
b. provision for stormwater drainage, line marking, tapers to existing/new road pavements, signage, street lighting associated with the required road works and road reserve transitions between existing and proposed roads;
c. cul-de-sac ends with a minimum 9 metre radius to the bulb end and a minimum 18 metre approach curve, all measured to the invert of kerb and channel and designed in accordance with the requirements of the applicable Planning Scheme and Council's adopted standards.

**Comment:** This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

**STAGE 3**
**WATER – EXTENSION**

ENG46. Design and construct a 150mm diameter extension to service Stage 3 generally in accordance with Water Network Analysis, prepared by Morris Water, Version 1, dated 16/10/2025.

**Comment:** This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

ENG47. Install fire hydrant valves to ensure that all allotments are within a distance of 40 metres of the nearest hydrant.

ENG48. Provide isolation valves, hydrant markers and RPMs in accordance with WSAA Codes and Council's standards.

ENG49. Design and construct all works in accordance with Council's requirements as set out in the WBBUWA Design and Construction Code and relevant development standards used by Council.

ENG50. Submit to Council, the written consent from the property owner where such works require entry onto adjoining land prior to Council's approval of Operational Work.

**VEHICLE ACCESS - REAR ACCESS LOTS**

ENG51. Construct a driveway of 100mm compacted gravel with a minimum width of 4m along the full length of the access handle providing access to proposed rear access lots.

ENG52. Design and construct all services along the full length of the access strip.

ENG53. Construct any new crossovers such that the edge of the crossover is no closer than 1 metre to any existing or proposed infrastructure including any stormwater gully pit, manhole, service infrastructure (eg power pole, telecommunications pit), road infrastructure (eg street sign, street tree, etc).

**ROADWORKS - INTERNAL/NEW ROADS**

ENG54. Design and construct the new roads identified as New Street 1 on proposed plan/s of development for Stage 2, in accordance SBRC Planning Scheme Policy SC6.2 PSP1 – Design and Construction Standards Table SC6.2.3, relevant Austroads Standards, and more specifically, include the following:

a. a prime and double/double seal;
b. provision for stormwater drainage, line marking, tapers to existing/new road pavements, signage, street lighting associated with the required road works and road reserve transitions between existing and proposed roads.
c. cul-de-sac ends with a minimum 9 metre radius to the bulb end and a minimum 18 metre approach curve, all measured to the invert of kerb and channel and designed in accordance with the requirements of the applicable Planning Scheme and Council's adopted standards.

**Comment:** This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

**STANDARD ADVICE**

ADV1. In accordance with Section 85(1)(b) of the *Planning Act 2016,* the development approval for Reconfiguring a Lot lapses if a plan for the Reconfiguration that is required to be given to a local government is not given.

An applicant may request Council to extend the relevant period provided that such request is made in accordance with Section 86 of the *Planning Act 2016* and before the development approval lapses under Section 85 of the *Planning Act 2016.*

**HERITAGE**

ADV2. This development approval does not authorise any activity that may harm Aboriginal Cultural Heritage. Under the *Aboriginal Cultural Heritage Act 2003* you have a duty of care in relation to such heritage. Section 23(1) provides that *"A person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage."* Council does not warrant that the approved development avoids affecting Aboriginal Cultural Heritage. It may therefore, be prudent for you to carry out searches, consultation, or a Cultural Heritage assessment to ascertain the presence or otherwise of Aboriginal Cultural Heritage. The Act and the associated duty of care guidelines explain your obligations in more detail and should be consulted before proceeding. A search can be arranged by visiting https://www.datsip.qld.gov.au and filling out the Aboriginal and Torres Strait Islander Cultural Heritage Search Request Form.

**APPEAL RIGHTS**

ADV3. Attached for your information is a copy of Chapter 6 of the *Planning Act 2016* as regards Appeal Rights.

**INFRASTRUCTURE CHARGES**

ADV4. Infrastructure charges are levied by way of an infrastructure charges notice pursuant to section 119 of the *Planning Act 2016*.

**DEVELOPER INCENTIVE**

ADV5. Council is offering a reduction in infrastructure charges payable through the development incentive scheme which is available between 1 December 2020 and 31 December 2027. Eligible development under this scheme is required to be completed by 31 December 2027.

For further information or application form please refer to the rules and procedures available on Council's website.

**FUTURE DWELLING HOUSES AND BUSHFIRE MANAGEMENT**

ADV6. All future Dwellings should be designed and constructed to meet the prevailing standards to ensure suitable Bushfire Attack Levels (BALs). Although the bushfire risk appears to be low in accordance with SBRC overlay mapping, bushfire risk to built assets should be effectively managed/addressed at design and construction phase of future dwellings through the following:

- National Construction Code; and
- Australian Standard Construction of Buildings in Bushfire Prone Areas (*AS3050:2018*); and
- Ongoing vegetation management.

**ON-SITE WASTEWATER DISPOSAL**

ADV7. Future Dwellings must be connected to an on-site wastewater disposal system, in accordance with *AS1547:2012 On-site domestic wastewater management*, and the Queensland Plumbing and Waste Water Code.

**Timing:** Prior to the issue of a Building Approval for a future Dwelling on the proposed lots.

**VEGETATION CLEARANCE**

ADV6. It is incumbent upon the developer and future owners of all lots to ensure that the clearance of on-site vegetation can be undertaken in accordance with the provisions of

the *Vegetation Management Act 1999,* the Vegetation Management Regulation 2012, the *Planning Act 2016* and the Planning Regulation 2017. These regulations permit the clearance of high value regrowth vegetation of State significance in some instances as 'exempt clearing work'.

For further information on the vegetation management framework:
Phone 135VEG (135 834);
Email vegetation@resources.qld.gov.au; or
Visit https://www.resources.qld.gov.au/?contact=vegetation to submit an online enquiry.

**FUTURE DWELLING HOUSES AND BUSHFIRE MANAGEMENT**

ADV7. All future buildings should be designed and constructed to meet the prevailing standards to ensure suitable Bushfire Attack Levels (BALs). In accordance with the Bushfire Hazard Assessment (as referenced at GEN1 of this conditions package). However, bushfire risk to built assets can be effectively managed/addressed at design and construction phase of the project through the following:

- National Construction Code; and
- Australian Standard Construction of Buildings in Bushfire Prone Areas (AS3050-2018); and
- Ongoing vegetation management.

ADV8. This bushfire management plan will be noted on Council's rates search system and will hence be discoverable information.

**PROPERTY NOTE**

PN1. The approved Bushfire Hazard Assessment Report concludes the proposed development presents a low bushfire risk subject to the recommended mitigation measures. Future dwellings are to be designed and sited in accordance with that report.

PN2. In accordance with the approved Ecological Assessment Report (as referenced at GEN1 of this conditions package). Future dwellings on all lots are required to be located within the located Building Location Envelope's (BLE's).

**FINANCIAL AND RESOURCE IMPLICATIONS**

No implication can be identified.

**LINK TO CORPORATE/OPERATIONAL PLAN**

Growing our Region's Economy and Prosperity

- GR8 Support and advocate for appropriate **growth and development** with responsive planning schemes, process, customer service and other initiatives.

**COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)**

Refer to CONSULTATION in this report.

**LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)**

No implication identified.

**POLICY/LOCAL LAW/DELEGATION IMPLICATIONS**

No implication can be identified.

**ASSET MANAGEMENT IMPLICATIONS**

No implication can be identified.

**REPORT**

**BACKGROUND**

| **SITE DETAILS** | | | | |
|---|---|---|---|---|
| **Site address** | 0 Lysdale Road WONDAI 4606 | | | |
| **Real property description** | Lot 59 on SP184725 | | | |
| **Site area** | 37.12ha | | | |
| **Owner** | Mr Cameron James Ansell, Stuart James Nicholson and Sabrina Elise Ansell | | | |
| **SITE CHARACTERISTICS** | | | | |
| **Current land use/s** | Vacant | | | |
| **Site Frontage/s** | Lysdale Road | | | |
| **Roads** | **Order of Road** | **Width of Road Reserve** | **Width of Pavement** | **Road Material** |
| Lysdale Road | Rural Access | Approximately 40m | Approximately 3.5m | Bitumen |
| Huston | Rural Access | Approximately 20m | Approximately 6m | Bitumen |
| **Easements or encumbrances on title** | Not Applicable. | | | |
| **Existing structures** | None | | | |
| **Environmental Management Register or Contaminated Land Register** | None Reported | | | |
| **Infrastructure** | None | | | |
| **Topography** | Relatively flat | | | |
| **Street trees** | N/A | | | |
| **Other features** | N/A | | | |
| **PLANNING SCHEME DETAILS** | | | | |
| **Current planning scheme** | **South Burnett Regional Council Planning Scheme 2017 v2.0** | | **Adopted: 16 October 2024 Commenced: 28 October 2024** | |
| **Zone** | Rural Residential | | | |
| **Precinct** | RR1 | | | |
| **Overlay/s** | • Bushfire Hazard Zone<br>o Medium Potential Intensity<br>• Flood Hazard Zone<br>• Agricultural Land Classification<br>o Class B | | | |
| **Infrastructure charges resolution** | Charges Resolution No. 3 | | Effective:<br>1 July 2019 | |
| **SURROUNDS:** | | | | |
| **Direction** | **Land use** | | **Zone/Precinct** | |
| **North** | Dwelling and rural use | | Rural Zone | |
| **East** | Rural Residential Uses | | Rural Residential Zone (RR1 precinct) | |

| | | |
|---|---|---|
| **West** | Dwelling and rural use | Rural Zone |
| **South** | Rural Residential Uses | Rural Residential Zone (RR1 precinct) |
| **Other features** | Nil | |

| **APPLICATION HISTORY** |
|---|
| Not Applicable. |

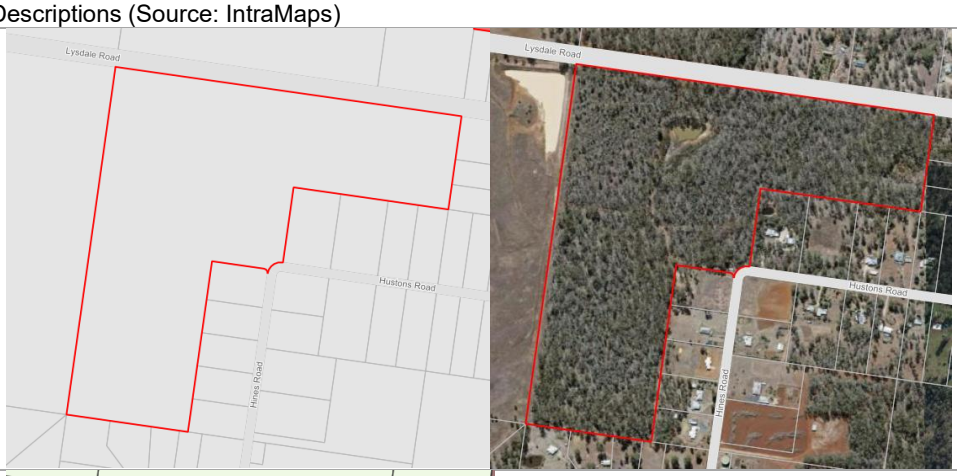
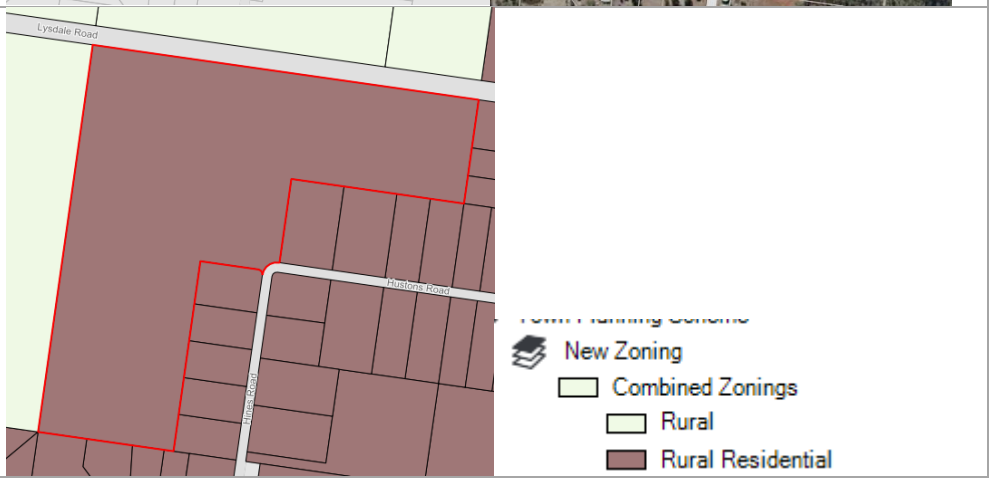
| **PRE-LODGEMENT/CONSULTATION HISTORY** |
|---|
| Not Applicable. |

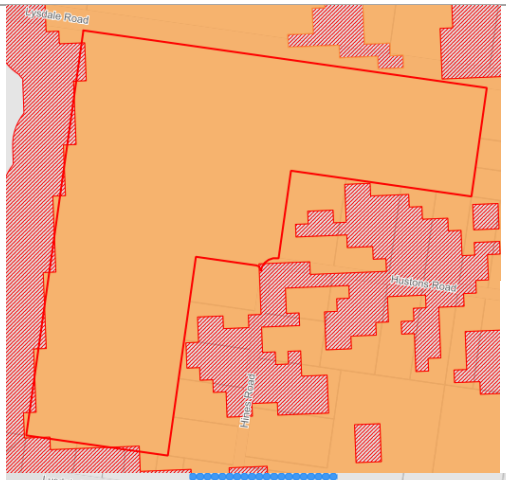
## THE SITE

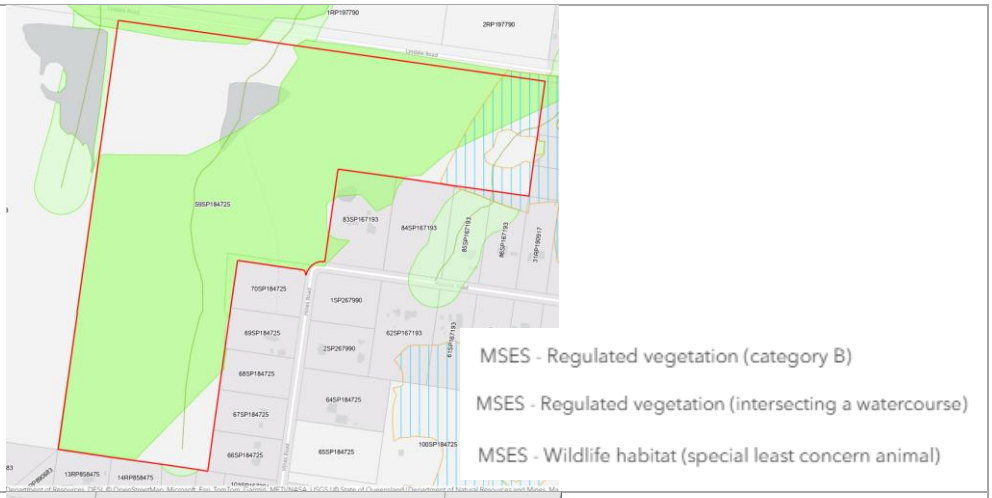
This section of the report provides a mapping of the site, notable characteristics of the site, the standard of servicing, and the form of development in the immediately locality (refer to Table 1).

### SITE DESCRIPTION & EXISTING USE

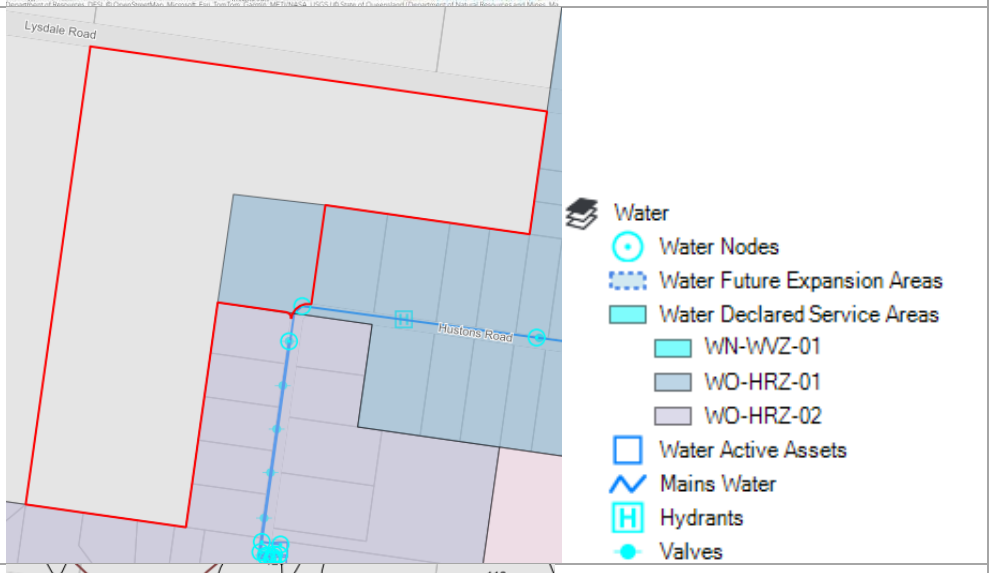
Table 1 - Maps & Descriptions (Source: IntraMaps)

| | |
|---|---|
| Site |  |
| Zoning |  |

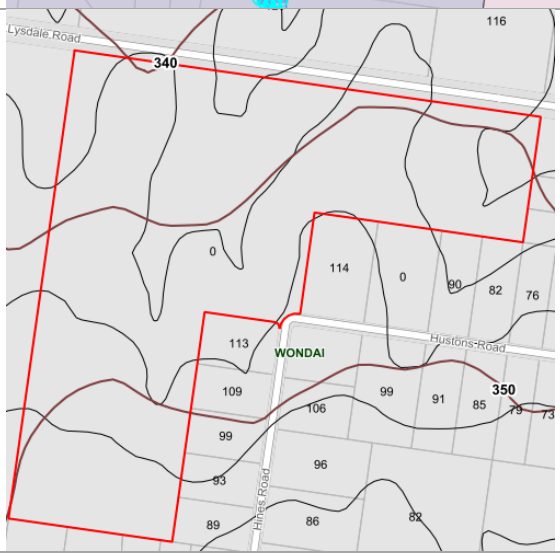
| | |
|---|---|
| Overlays |  <br>  <br>  |




Services




Topography



## PROPOSAL DETAILS

This development application seeks approval for Reconfiguring a Lot – Subdivision (1 Lot into 40 Lots) Over Three (3) Stages plus Two (2) New Roads, as shown in **Table 2** below.

**Table 2:** Summary of the proposal

| Stage | Proposed Lot | Proposed Area | Road Frontage Length | Road Frontage |
|---|---|---|---|---|
| **Stage 1** | 1 | 4,012m$^2$ | Over 41m | New Street 1 & Hustons Road |
| | 2 | 4,001m$^2$ | 41m | New Street 1 |
| | 3 | 4,001m$^2$ | 41m | New Street 1 |
| | 4 | 4,001m$^2$ | 41m | New Street 1 |
| | 5 | 4,004m$^2$ | 46m | New Street 1 |
| | 6 | 4,037m$^2$ | Over 50m | New Street 1 |
| | 7 | 4,040m$^2$ | 40.5m | New Street 1 |
| | 8 | 4,050m$^2$ | 40.5m | New Street 1 |
| | 9 | 4,050m$^2$ | 40.5m | New Street 1 |
| | 10 | 4,018m$^2$ | Over 37m | New Street 1 & New Street 2 |
| | 11 | 4,088m$^2$ | Over 41m | New Street 1 & New Street 2 |
| | 12 | 4,057m$^2$ | Over 30m | Lysdale Road & New Street 1 |
| | 30 | 2.71ha | Over 50m | Lysdale Road, New Street 1 & New Street 2 |
| **Stage 2** | 13 | 4,028m$^2$ | 41.5m | Lysdale Road & New Street 1 |
| | 14 | 4,009m$^2$ | 41.3m | Lysdale Road & New Street 1 |
| | 15 | 4,009m$^2$ | 41.3m | Lysdale Road & New Street 1 |
| | 16 | 4,009m$^2$ | 41.3m | Lysdale Road & New Street 1 |
| | 17 | 4,009m$^2$ | 41.3m | Lysdale Road & New Street 1 |
| | 18 | 4,009m$^2$ | 41.3m | Lysdale Road & New Street 1 |
| | 19 | 4,002m$^2$ | Over 24m | Lysdale Road & New Street 1 |
| | 20 | 4,030m$^2$ | 41.3m | Lysdale Road & New Street 1 |
| | 21 | 1.66ha | Over 9m | Lysdale Road & New Street 1 |
| | 22 | 4,000m$^2$ | Over 25m | New Street 1 |
| | 23 | 4,007m$^2$ | 40.6m | New Street 1 |
| | 24 | 4,007m$^2$ | 40.6m | New Street 1 |
| | 25 | 4,007m$^2$ | 40.6m | New Street 1 |
| | 26 | 4,007m$^2$ | 40.6m | New Street 1 |
| | 27 | 4,007m$^2$ | 40.6m | New Street 1 |
| | 28 | 4,000m$^2$ | 45.5m | New Street 1 |
| **Stage 3** | 29 | 14.36ha | 20m | New Street 1 |
| | 31 | 8,607m$^2$ | 105.2m | New Street 2 |
| | 32 | 4,205m$^2$ | 10.2m | New Street 2 |
| | 33 | 7,984m$^2$ | Over 10m | New Street 2 |
| | 34 | 5,035m$^2$ | Over 18m | New Street 2 |
| | 35 | 5,848m$^2$ | Over 27m | New Street 2 |
| | 36 | 5,283m$^2$ | Over 10m | New Street 2 |
| | 37 | 4,016m$^2$ | Over 10m | Lysdale Road & New Street 2 |
| | 38 | 4,093m$^2$ | Over 10m | Lysdale Road & New Street 2 |
| | 39 | 4,061m$^2$ | Over 27m | New Street 2 |
| | 40 | 4,383m$^2$ | Over 45m | New Street 2 |

Under the Planning Act, the proposal is defined as:

*Reconfiguring a lot means—*

a) *creating lots by subdividing another lot; or*
b) *amalgamating 2 or more lots; or*

c) *rearranging the boundaries of a lot by registering a plan of subdivision under the Land Act or Land Title Act; or*
d) *dividing land into parts by agreement rendering different parts of a lot immediately available for separate disposition or separate occupation, other than by an agreement that is—*
    i. *a lease for a term, including renewal options, not exceeding 10 years; or*
    ii. *an agreement for the exclusive use of part of the common property for a community titles scheme under the Body Corporate and Community Management Act 1997; or*
e) *creating an easement giving access to a lot from a constructed road*

The proposal plans are shown in Attachment C of this report and the proposal details are set out in **Table 3** below.

**SUMMARY DETAILS**

Table 3 - Summary Details

| | | | |
|---|---|---|---|
| **Name of applicant** | Stuart James Nicholson, Cameron James Ansell and Sabrina Elise Ansell C/- Urban Planet Town Planning Consultants. | | |
| **Application type** | Aspects of Development | Type of Approval Requested | |
| | | Preliminary Approval | Development Permit |
| | Reconfiguration of a Lot (RAL) | | **X** |
| **Proposed development** | Subdivision (1 Lot into 40 Lots) Over Three (3) Stages plus Two (2) New Roads | | |
| **Variations sought** | Not Applicable | | |
| **Level of assessment** | Impact Assessment | | |
| **RECONFIGURING A LOT – DEVELOPMENT PERMIT** | | | |
| **Number of existing lots** | One (1) Lot | | |
| **Easements or leases proposed** | Not Applicable. | | |
| **Number of proposed lots** | Forty (40) Lots | | |
| **Lot areas** | Refer to **Table 2** above. | | |
| **Access** | Lysdale Road, New Street 1 & New Street 2 | | |

## CONSULTATION UNDERTAKEN

### Referral Agencies

Referral Agency (SARA) or 'another entity', an assessment of the proposal against Schedule 10 of the Regulation has been undertaken.

The application does referral to any referral agencies prescribed under Schedule 10, as demonstrated in **Table 4.**

**Table 4** - Matters Prescribed in Schedule 10 of the Planning Regulation

| Part | Matter | Applicability to this Development Application | Prohibited Development | Assessable Development | Referral Agency | Assessment Benchmarks / Matters to be assessed against |
|---|---|---|---|---|---|---|
| 3 | Clearing Native Vegetation | Applies | N/A | N/A | State Assessment and Referral Agency (SARA) | State code 16: Native vegetation clearing |

| | |
|---|---|
| **State Assessment and Referral Agency** | State Assessment and Referral Agency (SARA) |
| **Other** | N/A |

Based on the findings in **Table 4** it has been concluded that the application does / does not require referral to a Referral Agency in accordance with Schedule 10, Part 3, Division 4, Table 2, Item 1 of the *Planning Regulation 2017.*

### Council Referrals

| ***INTERNAL REFERRAL SPECIALIST*** | ***REFERRAL / RESPONSE*** |
|---|---|
| Development Engineer | Council's Development Engineer provided standard engineering conditions and calculated the Infrastructure Charges. |
| Infrastructure Charges Unit | Council adopted the LGIP on 14 June 2019 which commenced on 1 July 2019.<br><br>The types of developments that may trigger the issuing of an infrastructure charges notice are:<br>• Reconfiguring a lot;<br>• Making a material change of use; and<br>• Carrying out building work.<br><br>Refer to Attachment D for the Infrastructure Charges Notice. |

### Public Notification

| | |
|---|---|
| **Date Notification Commenced** | 6 February 2026 |
| **Date Notification Completed** | 27 February 2026 |
| **Date notice of compliance received** | 4 March 2026 |

| **Submission Summary** | |
|---|---|
| **Submitter Issue** | **Response** |
| **Procedural / public notification** | |
| Submitters raise concerns that public notification was inadequate, contending the application material was only made available on Council's website late in the notification period and that the newspaper notice was not effectively circulated in the locality. | The concerns regarding public notification are noted. Section 53 of the *Planning Act 2016* requires a minimum public notification period of 15 business days for this type of application, which was provided in this instance. The application was publicly notified in accordance with the Development Assessment Rules, and the applicant provided a notice of compliance confirming completion of the required notification steps. |
| **Rural Residential Character / Over-Intensification** | |
| Submitters contend the subdivision represents an over-intensification of a constrained site and is | This concern is noted. The proposal is for rural residential subdivision within the Rural Residential |

| | |
|---|---|
| inconsistent with the existing low-density, small-acreage, semi-rural character of the locality. Concerns are also raised that the proposal may set an undesirable precedent for further fragmentation of surrounding land. | zone, precinct RR1, where 4,000m² allotments are anticipated. All proposed lots exceed 4,000m². The application is impact assessable because some lots do not meet the minimum road frontage requirement, not because the proposed lot sizes or rural residential use are inconsistent with the zone. On that basis, the proposal does not result in an unanticipated fragmentation outcome within the zone. |
| **Amenity / Privacy / Lifestyle Impacts** | |
| Submitters, particularly adjoining landowners, are concerned the proposal will reduce privacy, outlook and residential amenity by introducing a substantially greater number of dwellings, domestic activity, lighting, noise and general boundary pressure along existing property interfaces. | The amenity concerns are noted. The proposal is for rural residential subdivision within the Rural Residential zone, where detached dwelling houses on large allotments are anticipated. The proposed lots are of a size and configuration consistent with that outcome, and future built form will remain subject to separate building and siting requirements. Accordingly, the proposal is considered consistent with the amenity expectations of the zone. |
| **Biodiversity / Vegetation Clearing / Habitat Loss** | |
| Submitters object to the extent of proposed vegetation clearing and raise concerns about habitat loss, including impacts on mapped wildlife habitat and fauna values identified in the ecological material. Particular concern is raised that the subdivision may create further pressure for future clearing on individual lots. | Ecological concerns are noted. The application is supported by an Ecological Assessment Report, which identifies ecological values on the site and recommends avoidance, minimisation and mitigation measures. The application triggered referral to SARA in relation to native vegetation clearing to which SARA, which provided a response with conditions (refer to attachment I). Conditions have also been imposed requiring implementation of the recommended ecological management measures. |
| **Wildlife Corridors / Fencing / Pets / Vehicle Strike** | |
| Submitters contend that the proposed lot pattern, fencing and future residential occupation will fragment wildlife movement corridors and increase risks to fauna from domestic pets, traffic and general urban activity. | These concerns are noted. The Ecological Assessment Report considers impacts on fauna movement and habitat values and recommends avoidance, minimisation and mitigation measures. Native vegetation clearing was referred to SARA, which provided conditions, and conditions have also been imposed requiring the recommended ecological management measures to be implemented. |
| **Climate / Carbon Loss / Urban Heat** | |
| Submitters raise concerns that broadscale clearing of established native vegetation will reduce carbon sequestration, remove local temperature regulation benefits and contribute to urban heat effects. | These concerns are noted. While climate change is not a standalone assessment benchmark, the issue has been considered to the extent it relates to vegetation retention, landscape character and ecological outcomes under the planning scheme. |
| **Bushfire Hazard / Emergency Access / Evacuation** | |
| Submitters contend the site is bushfire-prone and that the proposed layout may intensify exposure to bushfire risk, including concerns about evacuation through the internal road network and the intersection with Hustons/Hines Road. | This concern is noted. The submitted Bushfire Hazard Assessment identifies low hazard across most of the site and concludes the overall residual bushfire risk is very low with mitigation. The report also confirms access to the existing road network, reticulated water supply and future compliance with AS3959. |

| | |
|---|---|
| **Flooding / Drainage / Erosion / Hydrology** | |
| Submitters are concerned the proposal will alter natural drainage patterns, reduce vegetative buffering, increase runoff velocities and worsen erosion or downstream flood impacts, particularly in the north-western part of the site where flood-related constraints are identified. | Drainage and flood concerns are noted. The proposal plans identify drainage paths and stormwater infrastructure concepts, and the planning report states flood and stormwater matters are to be addressed through the supporting stormwater management material and related operational works. The submitted stormwater conclusions indicate discharge is to occur via existing table drains and natural waterways, no significant increase in stormwater runoff is predicted, and minimum levels are identified for affected lots and the New Street 2 crossing. |
| **On-Site Wastewater / Water Quality** | |
| Submitters raise concern about the cumulative effect of 40 on-site sewerage systems, particularly having regard to drainage lines and local water quality. | This concern is noted. The application material addresses both on-site sewerage and water servicing. The submitted plans identify sewerage constraints and building envelopes, engineering has included an advice note for on-site wastewater disposal for future dwellings, and the Water Network Analysis Report concludes the existing 150mm water main in Hustons Road can be extended to service the subdivision. |
| **Traffic / Access / Infrastructure Servicing** | |
| Submitters raise concerns about increased traffic, road capacity and broader infrastructure demand arising from the development. | Traffic, access and infrastructure servicing concerns are noted. Council has considered the submitted engineering material and is satisfied the development can be adequately serviced. The proposal provides an internal road network to service the created lots, and the submitted servicing assessments indicate the existing road, stormwater and water infrastructure can support the development, subject to conditions and detailed design at the operational works stage. |
| **Lot Suitability / Constrained Land** | |
| Submitters contend that compliance with the minimum lot size alone does not demonstrate the land is suitable for subdivision, given the ecological, bushfire, drainage and servicing constraints affecting the site. | This concern is noted. Lot suitability is not determined by area alone. The proposal has been assessed having regard to access, servicing, drainage, ecological constraints and building envelopes, and the created lots are considered suitable for rural residential purposes subject to conditions. |
| **Adequacy / Accuracy Of Technical Reporting** | |
| Some submitters question whether the ecological material fully captures fauna presence and the extent of environmental values on the site. | This concern is noted. Council has had regard to the submitted Ecological Assessment Report, including the field assessment undertaken by the report authors, together with the other specialist material and the SARA response. Relevant conditions have been imposed where required. |

## FRAMEWORK FOR ASSESSMENT

Categorising Instruments for Statutory Assessment

For the *Planning Act 2016*, the following Categorising Instruments may contain Assessment Benchmarks applicable to development applications:

- the Planning Regulation 2017
- the Planning Scheme for the local government area
- any Temporary Local Planning Instrument
- any Variation Approval

Of these, the planning instruments relevant to this application are discussed in this report.

The following sections of the *Planning Act 2016* are relevant to this application:

*45(5) An impact assessment is an assessment that –*
*(a) must be carried out –*
*(i) against the assessment benchmarks in a categorising instrument for the development; and*
*(ii) having regard to any matters prescribed by regulation for this subparagraph; and*
*(b) may be carried out against, or having regard to, any other relevant matter, other than a person's personal circumstances, financial or otherwise.*

In regard to the prescribed regulation, being the Planning Regulation 2017*,* the following sections apply in the assessment of this application:

*Section 30 – Assessment Benchmarks generally*
*(1) For section 45(5)(i) of the Act, the impact assessment must be carried out against the assessment benchmarks for the development stated in schedules 9 and 10.*
*(2) Also, if the prescribed assessment manager is the local government, the impact assessment must be carried out against the following assessment benchmarks—*
*(a) the assessment benchmarks stated in—*
*(i) the regional plan for a region, to the extent the regional plan is not identified in the planning scheme as being appropriately integrated in the planning scheme; and*
*(ii) the State Planning Policy, part E, to the extent part E is not identified in the planning scheme as being appropriately integrated in the planning scheme; and*
*(iii) a temporary State planning policy applying to the premises;*
*(b) if the development is not in a local government area-any local planning instrument for a local government area that may be materially affected by the development;*
*(c) if the local government is an infrastructure provider—the local government's LGIP.*
*(3) However, an assessment manager may, in assessing development requiring impact assessment, consider an assessment benchmark only to the extent the assessment benchmark is relevant to the development.*

**PLANNING REGULATION 2017**
The Planning Regulation 2017 forms the mechanism by which the provisions of the Act are administered. In particular, the Regulation has the ability to regulate and prohibit development and determines the assessment manager and the matters that trigger State interests.

| **PLANNING REGULATION 2017** | |
|---|---|
| Prohibited development | The proposed development is not prohibited development in accordance with the Planning Regulation 2017. |
| Infrastructure charges | The Planning Regulation 2017 provides for the levying of infrastructure charges on development approvals. |
| Schedules 9, 10 and 12A | Schedules 9, 10 and 12A categorises particular development and details the relevant assessment benchmarks for development as relevant. |

| **REGIONAL PLAN** | |
|---|---|
| Wide Bay Burnett Regional Plan (WBBRP) Designation | The site is contained within the Priority Agricultural Area and is in the Priority Living Area. |

| | |
|---|---|
| | *Priority Living Areas have effect through the RPI Act which considers land use policies in relation to proposed resource activities such as mining and petroleum that generally occur outside the Planning Act and local government planning schemes. PLAs give communities, via their local government, a say on how these proposed activities may or may not impact on a town's amenity and wellbeing.*<br><br>*PLAs within the region are shown in Map 3 and Schedule A. PLAs include key settlement areas with populations equal to or greater than 200 people that are likely to experience growth over the next 25 years, with a two-kilometre buffer applied around the settlement area. PLAs do not identify a future settlement pattern for a town and do not have any effects under the Planning Act.*<br><br>*Any proposed resource activity within the PLA must demonstrate that the location, nature and conduct of the activity is compatible with the planned future for the area. This is completed through an application process established under the RPI Act. Importantly, all resource activity proposals within a PLA must be publicly notified.*<br><br>Officer Comment:<br>It is logical to suggest the mapped area, inclusive of the subject site, is a logical extension of the existing urban format, particularly given the zone of the site and the locality. The current zone also affords the site protection in the same form generally as the Regional Plan. The proposed reconfiguration of the site is consistent with the outcomes sought by the PLA. Given the zone of the land and the existing scale and form of development there is no conflict with the mapped Priority Agricultural Area. The proposed development advocates suitable buffers to agricultural opportunity to the west of the site and there is a planning expectation of amenity associated with the existing rural residential zoned land in the location of the site. |

**STATE PLANNING POLICY**

The State Planning Policy (July 2017) (SPP) commenced on the 3 July 2017 and is effective at the time of writing this report. The Planning Regulation 2017 (PR 2017) states the assessment must be carried out against the assessment benchmarks stated in Part E of the State Planning Policy to the extent Part E is not appropriately integrated into the planning scheme.

In accordance with section (8)(4)(a) of the Act, the State Planning Policy applies to the extent of any inconsistency with the Planning Scheme.

| **STATE PLANNING POLICY PART E - JULY 2017** | |
|---|---|
| **Interests** | **Assessment comments** |
| Liveable communities and housing | No applicable benchmarks |
| Economic growth<br>• Agriculture.<br>• Development and construction.<br>• Mining and extractive resources.<br>• Tourism. | **Complies**<br>The site is mapped by *State Planning Policy* mapping as Agricultural Land Classification – Class B and Important Agricultural Areas. However, the proposed reconfiguration is located within the Rural Residential |

| STATE PLANNING POLICY PART E - JULY 2017 | |
|---|---|
| **Interests** | **Assessment comments** |
| | Zone (RR1 precinct), there is no impact to Agriculture in this proposal. |
| Planning for the environment and heritage.<br>• Biodiversity.<br>• Coastal environment.<br>• Cultural heritage.<br>• Water quality | **Complies**<br>The site is mapped by *State Planning Policy* mapping as:<br>• MSES – Regulated vegetation (Category B)<br>• MSES – Wildlife habitat (special least concern animal)<br><br>The site contains mapped MSES regulated vegetation and wildlife habitat. The application is supported by an Ecological Assessment Report, including field assessment, which identifies ecological values and recommends avoidance, minimisation and mitigation measures. Native vegetation clearing was referred to SARA, which provided conditions. Subject to those conditions, the proposal is considered to appropriately address biodiversity matters. |
| Safety and resilience to hazards<br>• Emissions and hazardous activities.<br>• Natural hazards, risk, and resilience. | **Complies**<br>The site is mapped by *State Planning Policy* mapping as within the Medium Impact Buffer of the Bushfire Hazard Overlay and in the flood hazard overlay<br><br>Bushfire – the subject sites are mapped in the potential bushfire intensity area. The subdivision layout has been designed and assessed through a Bushfire Management Report (BMR). Recommendation within the report include mitigation measures and direct access to the constructed road for emergency evacuation.<br><br>Flood – The site is affected by the Flood Hazard Overlay. The submitted stormwater report concludes stormwater can be appropriately managed, no significant increase in runoff is expected, and minimum levels are identified for affected lots and the New Street 2 crossing. Subject to detailed design and construction requirements, the proposal is considered to appropriately address flood and drainage matters. |
| Infrastructure<br>• Energy and water supply.<br>• Infrastructure integration.<br>• Transport infrastructure.<br>• Strategic airports and aviation facilities.<br>• Strategic ports. | **Complies**<br>All appropriate services in accordance with the Service and Works Code and Rural Residential Zone Code of the SBRC Planning Scheme 2017 v2.0 has been conditioned. |

**DEVELOPMENT CODES**

The application is assessable against the following assessment benchmarks of the SBRC Planning Scheme 2017, v 2.0:

- Strategic Framework;
- Bushfire Hazard overlay code;
- Rural Residential zone code;
- Reconfiguring a Lot code; and
- Services and Works code.

Other relevant assessment benchmarks used in this assessment:

- N/A

The development was assessed against all of the assessment benchmarks listed above and is considered to comply ***except*** as follows:

| **Bushfire Hazard Code** | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |
| **Section C** | |
| Reconfiguring a lot (RaL) – additional provisions where creating more than 20 lots: | |
| **PO4**<br>The subdivision layout is designed to minimise the length of the development perimeter and number of lots exposed to hazardous vegetation. Note–For example, avoid finger-like subdivision patterns or substantive vegetated corridors between lots. | No acceptable outcome is prescribed. |
| **Applicant's Alternative Outcome** | |
| The applicant submits:<br>The subdivision is designed in a manner as to minimise the length of the development perimeter, with site division occurring to create a cohesive development, with no substantiative vegetated corridors or finger like corridors occurring between lots. | |
| **Officer's Comment** | |
| The proposed subdivision layout is considered to comply with PO4. It provides a cohesive development pattern, avoids finger-like subdivision patterns, and does not create substantial vegetated corridors between lots, thereby minimising exposure to hazardous vegetation. | |

| **Rural residential Zone Code** | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |
| **Section 5 For development affected by one or more overlays (other than bushfire hazard overlay)** | |
| **Biodiversity overlay** | |
| **PO13**<br>Biodiversity values of identified areas of environmental significance are protected from the impacts of development. | **AO13**<br>Development adjacent to Protected Areas identified on Overlay Map 05 is set back a minimum of 100m from the park boundaries in the absence of any current 'Management Plans' for these areas. |
| **Applicant's Alternative Outcome** | |

The applicant submits:
Complies with PO13
The proposed development is not located adjacent to a Protected Area identified on Overlay Map 05. As such, the requirement for a 100m setback from park boundaries does not apply. Accordingly, the biodiversity values of identified areas of environmental significance will be protected from development impacts, and the proposal is considered to comply with PO13 and AO13.

**Officer's Comment**

**Complies**
The proposal is not located adjacent to a Protected Area identified on Overlay Map 05 and, as such, the 100m setback in AO13 is not triggered. On that basis, the proposal is considered to comply with PO13.

| | |
|---|---|
| **PO14**<br>There are no significant adverse effects on water quality, ecological and biodiversity values. | **AO14.1**<br>Uses and associated works are confined to areas outside overland flow paths and natural drainage features.<br>and<br>**AO14.2**<br>All buildings, on-site effluent disposal, external activities or storage areas are located 100m from the top of the bank of a river, creek, stream or wetland identified on Overlay Map 05.<br><br>Note–This setback does not apply to equipment such as pumps that are necessary to access water or waterway crossings.<br>and<br>**AO14.3**<br>The Waterway Corridors identified on Overlay Map 05 are maintained in a natural state. |

**Applicant's Alternative Outcome**

**Complies with PO14**
While some proposed lots (Lots 21, 29, 30 and 31) occur adjacent to the mapped watercourses, building envelopes have been designed to concentrate clearing and associated construction away from these sensitive features, ensuring that no significant adverse effects on water quality, ecological values, or biodiversity values will occur to these features.

It is acknowledged however that there is no economically viable option to satisfy the assessment outcomes with wastewater treatment systems required to be located 100m of the top of bank of the watercourses. The proposed development however is able to comply with PO14 ensuring there are no significant adverse effects on water quality, ecological and biodiversity values.

This is through the implementation of appropriate wastewater management measures consistent with the Queensland Plumbing and Wastewater Code (QPW Code) and relevant plumbing and drainage legislation.

The QPW Code provides setback distances for on-site wastewater disposal areas based on the level of treatment:
- 30m from the top of the bank of a watercourse for secondary treatment systems; and
- 10m from the top of the bank of a watercourse for advanced secondary treatment systems.

| |
|---|
| Based on site layout, Lots 21, 29, 30 and 31 are the most sensitive in terms of setback requirements and will utilise advanced secondary treatment systems. These systems can be fully accommodated within the designated building envelopes, all of which are located more than 36m from the defining banks of the watercourses, ensuring compliance with the QPW Code and ensuring no significant adverse effects on water quality, ecological and biodiversity values.<br><br>These measures will ensure that on-site wastewater disposal will not result in water pollution or degradation of ecological or biodiversity values, thereby satisfying the intent of PO14. |
| **Officer's Comment** |
| **Complies**<br>The proposal is considered to achieve PO14. Although Lots 21, 29, 30 and 31 are the most constrained in relation to nearby watercourses, the nominated building envelopes and wastewater treatment arrangements are located to avoid significant adverse effects on water quality, ecological values and biodiversity values. |

| **Reconfiguring a Lot Code** | |
|---|---|
| **Performance Outcome** | **Requirements for accepted development and assessment benchmarks** |
| **Section 3 All other reconfiguration** | |
| **PO7**<br>Allotments are of sufficient size and dimensions to meet the requirements of the users and provide for servicing of the intended use. | **AO**7.1<br>Development provides that allotment area, dimension and shape are in accordance with the standards in Table 8.4.2.<br>and<br>**AO7.2**<br>The minimum allotment size for any rear allotment shall be calculated exclusive of the area of the access corridor of the allotment.<br>and<br>**AO7.3**<br>Irregularly shaped allotments are designed to allow a building area of 15m by 10m to be setback 6m from the site frontage. |
| **Applicant's Alternative Outcome** | |
| The applicant submits:<br>The proposed development offers an alternate outcome for some site frontages given the design in the location of road bends and cul-de sac heads. The narrower road frontages do not impact the utility of the sites given the sizes of the individual lots. | |
| **Officer's Comment** | |
| The proposed development is considered to comply with PO7. Although some lots have reduced frontages due to the road geometry, the lots remain of sufficient size and dimensions for rural residential purposes. The frontage variations do not adversely affect the usability or servicing of the allotments. | |

## CONCLUSION

The proposed development has been assessed with regard to the applicable assessment benchmarks as identified within the report and the attached Statement of Reasons (refer to Attachment A). The proposed development generally complies with the assessment benchmarks, or it can be conditioned to comply. Where the applicant has not provided sufficient information,

conditions have been imposed to ensure compliance. It is therefore recommended that the development application be approved subject to the above conditions.

## ATTACHMENTS

1. **Attachment A - Statement of Reasons** ⇩
2. **Attachment B - Infrastructure Charges Notice** ⇩
3. **Attachment C - Approved Plans** ⇩
4. **Attachment D - Bushfire Assessment Management Plan** ⇩
5. **Attachment E - BAL Assessment Report** ⇩
6. **Attachment F - Ecological Assessment Report** ⇩
7. **Attachment G - Preliminary Stormwater Management Report** ⇩
8. **Attachment H - Referral Agency Response** ⇩
9. **Attachment I - Submissions Received** ⇩

**NOTICE ABOUT DECISION – STATEMENT OF REASONS**

*The following information is provided in accordance with Section 63(4) & (5) of the Planning Act 2016*

| | |
|---|---|
| **Applicant:** | Stuart James Nicholson, Cameron James Ansell and Sabrina Elise Ansell C/- Urban Planet Town Planning Consultants. |
| **Application No:** | RAL25/0044 |
| **Proposal:** | Reconfiguring a Lot – Subdivision (1 Lot into 40 Lots) Over Three (3) Stages plus Two (2) New Roads |
| **Street Address:** | Lysdale Road WONDAI 4606 |
| **RP Description:** | Lot 59 on SP184725 |
| **Assessment Type:** | Impact |
| **Number of Submissions:** | 11 properly made submissions and 3 not properly made submissions |

On [DATE DECIDED] the above development was recommended for:

☒ Approval
☐ Refusal

**1. Reasons for the Decision**

The reasons for this decision are:

- The Application was properly made in accordance with the *Planning Act 2016* and the Development Assessment Rules;
- The Application is deemed compliant with the relevant benchmarks of the State Planning Policy July 2017 and the *SBRC Planning Scheme 2017 v2.0.* Conditions have been included to ensure ongoing compliance with the outcomes of the codes;
- The The proposed development is for rural residential subdivision in the Rural Residential zone, being a form of development anticipated in that zone.
- All proposed allotments exceed the minimum 4,000m² allotment size for the RR1 precinct and are considered capable of accommodating the intended rural residential use.
- The application is supported by relevant technical reports addressing ecology, bushfire, stormwater and water servicing, which demonstrate that the site constraints can be appropriately managed.
- The development is capable of being adequately accessed and serviced, subject to detailed design and the conditions of approval.
  5. The proposed development, when conditioned, is considered to comply with the relevant assessment benchmarks and does not give rise to unacceptable planning impacts.

**2. Assessment Benchmarks**

The following are the benchmarks apply to this development:

- Strategic Framework;
- Bushfire Hazard Overlay;

- Rural Residential Zone Code;
- Reconfiguring a Lot Code; and
- Services and Works Code.

**3. Compliance with Benchmarks**

The development was assessed against all the assessment benchmarks listed above and complies with all of these or can be conditioned to comply.

**Note**: Each application submitted to Council is assessed individually on its own merit.

# INFRASTRUCTURE CHARGES NOTICE

*(Section 119 of the Planning Act 2016)*

| | |
|---|---|
| **APPLICANT:** | Lysdale Property Development Pty Ltd<br>C/-Urban Planet Town Planning Consultants<br>PO Box 232<br>Hervey Bay, QLD 4655 |
| **APPLICATION:** | Reconfiguration of a Lot - Subdivision (1 Lot into 40 Lots) - Impact Assessable – Stage 1 |
| **DATE:** | [insert date] |
| **FILE REFERENCE:** | RAL25/0044 |
| **AMOUNT OF THE LEVIED CHARGE:**<br>*(Details of how these charges were calculated are shown overleaf)* | **$171,132.00** **Total** |

| | |
|---|---|
| $118,104.00 | Water Supply Network |
| $0.00 | Sewerage Network |
| $28,920.00 | Transport Network |
| $24,108.00 | Parks and Land for Community Facilities Network |
| $0.00 | Stormwater Network |

| | |
|---|---|
| **AUTOMATIC INCREASE OF LEVIED CHARGE:** | The amount of the levied charge is subject to an automatic increase. Refer to the Information Notice attached to this notice for more information on how the increase is worked out. |
| **LAND TO WHICH CHARGE APPLIES:** | Lot 59 On SP184725 |
| **SITE ADDRESS**: | Lysdale Road, Wondai. |
| **PAYABLE TO:** | **South Burnett Regional Council** |
| **WHEN PAYABLE:**<br>*(In accordance with the timing stated in Section 122 of the Planning Act 2016)* | Reconfiguring a Lot – When South Burnett Regional Council approves the Plan of Subdivision. |
| **OFFSET OR REFUND:** | Not Applicable. |

This charge is made in accordance with South Burnett Regional Council's ***Charges Resolution (No. 3) 2019***

# DETAILS OF CALCULATION

## Water Supply

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 13 | Allotments | $9,842.00 | CR Table 2.3 | $127,946.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Existing Lot | 1 | Allotment | $9,842.00 | CR Table 2.3 | $9,842.00 |

## Sewerage

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Transport

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 13 | Allotments | $2,410.00 | CR Table 2.3 | $31,330.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Existing Lot | 1 | Allotment | $2,410.00 | CR Table 2.3 | $2,410.00 |

## Parks and Land for Community Facilities

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 13 | Allotments | $2,009.00 | CR Table 2.3 | $26,117.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Existing Lot | 1 | Allotment | $2,009.00 | CR Table 2.3 | $2,009.00 |

## Stormwater

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Levied Charges

| Development Description | Water Supply | Sewerage | Transport | Parks & Land for Community Facilities | Stormwater | Total |
|---|---|---|---|---|---|---|
| Reconfiguring a Lot | $118,104.00 | $0.00 | $28,920.00 | $24,108.00 | $0.00 | $171,132.00 |
| **Total** | **$118,104.00** | **$0.00** | **$28,920.00** | **$24,108.00** | **$0.00** | **$171,132.00** |

** In accordance with Section 3.3 of the Charges Resolution, the discount may not exceed the adopted charge. Any surplus discounts will not be refunded, except at South Burnett Regional Council's discretion.*

# INFORMATION NOTICE

| | |
|---|---|
| **Authority and Reasons for Charge** | This Infrastructure Charges Notice has been given in accordance with section 119 of the *Planning Act 2016* to support the Local government's long-term infrastructure planning and financial sustainability. |
| **Appeals** | Pursuant to section 229 and Schedule 1 of the *Planning Act 2016* a person may appeal an Infrastructure Charges Notice. Attached is an extract from the *Planning Act 2016* that details your appeal rights. |
| **Automatic Increase Provision of charge rate ($)** | An infrastructure charge levied by South Burnett Regional Council is to be increased by the difference between the Producer Price Index (PPI) applicable at the time the infrastructure charge was levied, and PPI applicable at the time of payment of the levied charge , adjusted by reference to the 3-yearly PPI average[1]. If the levied charge is increased using the method described above, the charge payable is the amount equal to the sum of the charge as levied and the amount of the increase.<br><br>However, the sum of the charge as levied and the amount of the increase is not to exceed the maximum adopted charge the Authority could have levied for the development at the time the charge is paid. |
| **GST** | The Federal Government has determined that contributions made by developers to Government for infrastructure and services under the *Planning Act* 2016 are GST exempt. |
| **Making a Payment** | This Infrastructure Charges Notice cannot be used to pay your infrastructure charges.<br><br>To pay the levied charge, you must request an Itemised Breakdown showing the total levied charge payable at the time of payment. An Itemised Breakdown must be presented at the time of payment.<br><br>An Itemised Breakdown may be requested by emailing info@southburnett.qld.gov.au |

[1] 3-yearly PPI average is defined in section 114 of the *Planning Act 2016* and means the PPI adjusted according to the 3-year moving average quarterly percentage change between financial quarters. PPI Index is the producer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics.

Payment can be made at any of the following South Burnett Regional Council Offices:

- 69 Hart Street, Blackbutt, 4314;
- 45 Glendon Street, Kingaroy, 4610;
- 42 Stephens Street West, Murgon, 4605;
- 48 Drayton Street, Nanango, 4615;
- McKenzie Street, Wondai, 4606; or
- via other methods identified on the Itemised Breakdown.

**Enquiries**

Enquiries regarding this Infrastructure Charges Notice should be directed to the SOUTH BURNETT REGIONAL COUNCIL, Department of Finance & Liveability, during office hours, Monday to Friday by phoning (07) 4189 9100 or email at info@sbrc.qld.gov.au

# INFRASTRUCTURE CHARGES NOTICE

*(Section 119 of the Planning Act 2016)*

| | |
|---|---|
| **APPLICANT:** | Lysdale Property Development Pty Ltd<br>C/-Urban Planet Town Planning Consultants<br>PO Box 232<br>Hervey Bay, QLD 4655 |
| **APPLICATION:** | Reconfiguration of a Lot - Subdivision (1 Lot into 40 Lots) - Impact Assessable – Stage 2 |
| **DATE:** | [insert date] |
| **FILE REFERENCE:** | RAL25/0044 |
| **AMOUNT OF THE LEVIED CHARGE:**<br>*(Details of how these charges were calculated are shown overleaf)* | **$228,176.00** **Total** |

| | |
|---|---|
| $157,472.00 | Water Supply Network |
| $0.00 | Sewerage Network |
| $38,560.00 | Transport Network |
| $32,144.00 | Parks and Land for Community Facilities Network |
| $0.00 | Stormwater Network |

| | |
|---|---|
| **AUTOMATIC INCREASE OF LEVIED CHARGE:** | The amount of the levied charge is subject to an automatic increase. Refer to the Information Notice attached to this notice for more information on how the increase is worked out. |
| **LAND TO WHICH CHARGE APPLIES:** | Lot 59 On SP184725 |
| **SITE ADDRESS**: | Lysdale Road, Wondai. |
| **PAYABLE TO:** | **South Burnett Regional Council** |
| **WHEN PAYABLE:**<br>*(In accordance with the timing stated in Section 122 of the Planning Act 2016)* | Reconfiguring a Lot – When South Burnett Regional Council approves the Plan of Subdivision. |
| **OFFSET OR REFUND:** | Not Applicable. |

This charge is made in accordance with South Burnett Regional Council's ***Charges Resolution (No. 3) 2019***

# DETAILS OF CALCULATION

## Water Supply

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 16 | Allotments | $9,842.00 | CR Table 2.3 | $157,472.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Sewerage

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Transport

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 16 | Allotments | $2,410.00 | CR Table 2.3 | $38,560.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Parks and Land for Community Facilities

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 16 | Allotments | $2,009.00 | CR Table 2.3 | $32,144.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Stormwater

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Levied Charges

| Development Description | Water Supply | Sewerage | Transport | Parks & Land for Community Facilities | Stormwater | Total |
|---|---|---|---|---|---|---|
| Reconfiguring a Lot | $157,472.00 | $0.00 | $38,560.00 | $32,144.00 | $0.00 | $228,176.00 |
| **Total** | **$157,472.00** | **$0.00** | **$38,560.00** | **$32,144.00** | **$0.00** | **$228,176.00** |

** In accordance with Section 3.3 of the Charges Resolution, the discount may not exceed the adopted charge. Any surplus discounts will not be refunded, except at South Burnett Regional Council's discretion.*

# INFORMATION NOTICE

| | |
|---|---|
| **Authority and Reasons for Charge** | This Infrastructure Charges Notice has been given in accordance with section 119 of the *Planning Act 2016* to support the Local government's long-term infrastructure planning and financial sustainability. |
| **Appeals** | Pursuant to section 229 and Schedule 1 of the *Planning Act 2016* a person may appeal an Infrastructure Charges Notice. Attached is an extract from the *Planning Act 2016* that details your appeal rights. |
| **Automatic Increase Provision of charge rate ($)** | An infrastructure charge levied by South Burnett Regional Council is to be increased by the difference between the Producer Price Index (PPI) applicable at the time the infrastructure charge was levied, and PPI applicable at the time of payment of the levied charge , adjusted by reference to the 3-yearly PPI average[2]. If the levied charge is increased using the method described above, the charge payable is the amount equal to the sum of the charge as levied and the amount of the increase.<br><br>However, the sum of the charge as levied and the amount of the increase is not to exceed the maximum adopted charge the Authority could have levied for the development at the time the charge is paid. |
| **GST** | The Federal Government has determined that contributions made by developers to Government for infrastructure and services under the *Planning Act* 2016 are GST exempt. |
| **Making a Payment** | This Infrastructure Charges Notice cannot be used to pay your infrastructure charges.<br><br>To pay the levied charge, you must request an Itemised Breakdown showing the total levied charge payable at the time of payment. An Itemised Breakdown must be presented at the time of payment.<br><br>An Itemised Breakdown may be requested by emailing info@southburnett.qld.gov.au |

[2] 3-yearly PPI average is defined in section 114 of the *Planning Act 2016* and means the PPI adjusted according to the 3-year moving average quarterly percentage change between financial quarters. PPI Index is the producer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics.

Payment can be made at any of the following South Burnett Regional Council Offices:

- 69 Hart Street, Blackbutt, 4314;
- 45 Glendon Street, Kingaroy, 4610;
- 42 Stephens Street West, Murgon, 4605;
- 48 Drayton Street, Nanango, 4615;
- McKenzie Street, Wondai, 4606; or
- via other methods identified on the Itemised Breakdown.

**Enquiries**

Enquiries regarding this Infrastructure Charges Notice should be directed to the SOUTH BURNETT REGIONAL COUNCIL, Department of Finance & Liveability, during office hours, Monday to Friday by phoning (07) 4189 9100 or email at info@sbrc.qld.gov.au

# INFRASTRUCTURE CHARGES NOTICE

*(Section 119 of the Planning Act 2016)*

| | |
|---|---|
| **APPLICANT:** | Lysdale Property Development Pty Ltd<br>C/-Urban Planet Town Planning Consultants<br>PO Box 232<br>Hervey Bay, QLD 4655 |
| **APPLICATION:** | Reconfiguration of a Lot - Subdivision (1 Lot into 40 Lots) - Impact Assessable – Stage 3 |
| **DATE:** | [insert date] |
| **FILE REFERENCE:** | RAL25/0044 |
| **AMOUNT OF THE LEVIED CHARGE:**<br>*(Details of how these charges were calculated are shown overleaf)* | **$156,871.00** **Total** |

| | |
|---|---|
| $108,262.00 | Water Supply Network |
| $0.00 | Sewerage Network |
| $26,510.00 | Transport Network |
| $22,099.00 | Parks and Land for Community Facilities Network |
| $0.00 | Stormwater Network |

| | |
|---|---|
| **AUTOMATIC INCREASE OF LEVIED CHARGE:** | The amount of the levied charge is subject to an automatic increase. Refer to the Information Notice attached to this notice for more information on how the increase is worked out. |
| **LAND TO WHICH CHARGE APPLIES:** | Lot 59 On SP184725 |
| **SITE ADDRESS**: | Lysdale Road, Wondai. |
| **PAYABLE TO:** | **South Burnett Regional Council** |
| **WHEN PAYABLE:**<br>*(In accordance with the timing stated in Section 122 of the Planning Act 2016)* | Reconfiguring a Lot – When South Burnett Regional Council approves the Plan of Subdivision. |
| **OFFSET OR REFUND:** | Not Applicable. |

This charge is made in accordance with South Burnett Regional Council's ***Charges Resolution (No. 3) 2019***

# DETAILS OF CALCULATION

## Water Supply

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 11 | Allotments | $9,842.00 | CR Table 2.3 | $108,262.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Sewerage

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Transport

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 11 | Allotments | $2,410.00 | CR Table 2.3 | $26,510.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Parks and Land for Community Facilities

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Reconfiguring a Lot | 11 | Allotments | $2,009.00 | CR Table 2.3 | $22,099.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Stormwater

**Adopted Charges**

| Development Description | Number of Units | Units of Measure | Charge Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

**Discounts***

| Description | Number of Units | Units of Measure | Discount Rate | Reference | Amount |
|---|---|---|---|---|---|
| Not Applicable | - | - | $0.00 | - | $0.00 |

## Levied Charges

| Development Description | Water Supply | Sewerage | Transport | Parks & Land for Community Facilities | Stormwater | Total |
|---|---|---|---|---|---|---|
| Reconfiguring a Lot | $108,262.00 | $0.00 | $26,510.00 | $22,099.00 | $0.00 | $156,871.00 |
| **Total** | **$108,262.00** | **$0.00** | **$26,510.00** | **$22,099.00** | **$0.00** | **$156,871.00** |

** In accordance with Section 3.3 of the Charges Resolution, the discount may not exceed the adopted charge. Any surplus discounts will not be refunded, except at South Burnett Regional Council's discretion.*

# INFORMATION NOTICE

| | |
|---|---|
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[3] 3-yearly PPI average is defined in section 114 of the *Planning Act 2016* and means the PPI adjusted according to the 3-year moving average quarterly percentage change between financial quarters. PPI Index is the producer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics.

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- McKenzie Street, Wondai, 4606; or
- via other methods identified on the Itemised Breakdown.

**Enquiries**

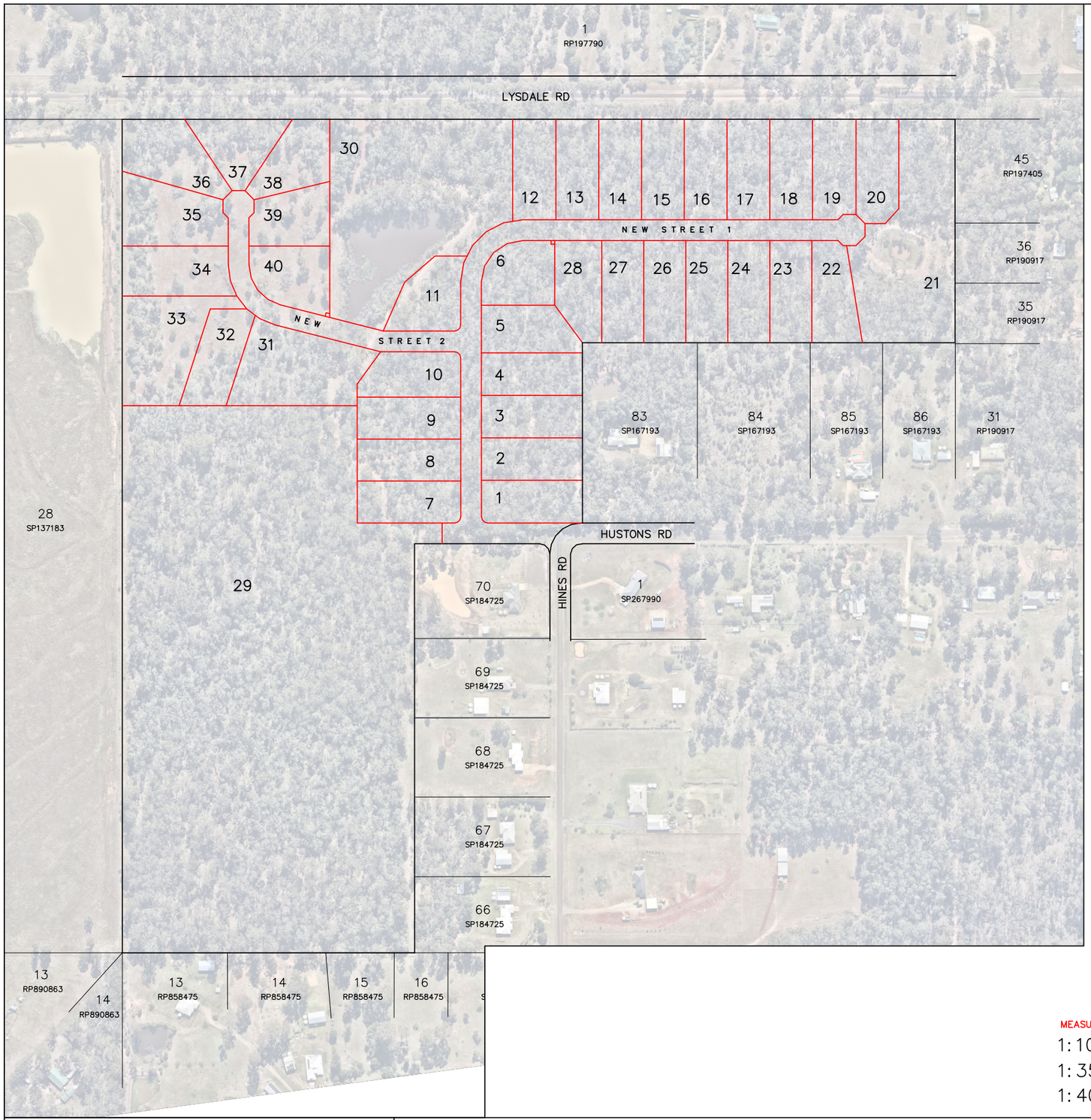
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# DRAWING INDEX

## LYSDALE ESTATE – PROPOSAL PLANS

## DATE OF ISSUE: 2/12/2025

| SHEET | DRAWING TITLE | REV | REVISION SUMMARY |
|---|---|---|---|
| LYS–01 | PROPOSAL PLAN – OVERVIEW | 0<br>1 | <br>Road bend radius changed to 50m. Minor changes to lot dimensions |
| LYS–02 | GENERAL LAYOUT AND STAGEING | 0<br>1 | <br>Road bend radius changed to 50m. Minor changes to lot dimensions |
| LYS–02A | LOT DIMENSION OVERVIEW | 0 | |
| LYS–02B | LOT DIMENSIONS | 0 | |
| LYS–02C | LOT DIMENSIONS | 0 | |
| LYS–02D | LOT DIMENSIONS | 0 | |
| LYS–02E | LOT DIMENSIONS | 0 | |
| LYS–03 | INTERSECTION, CORNER & CUL DE SAC DETAILS | 0<br>1 | <br>Road bend radius increased to 50m. Road seal width and dimensions shown |
| LYS–03A | ROAD NETWORK CONCEPT | 0 | |
| LYS–04 | ECOLOGICAL NOTES | 0<br>1 | <br>Road radius change – minor changes to lots 2–22,11,30–33,40 in dimensions, build envelopes 30,31. Additional dimensioning. |
| LYS–05 | STORMWATER CONCEPT | 0<br>1 | <br>Road radius change. Minor changes to lot dimensions. Changes to SW easements lots 30, 29. |
| LYS–06 | BUILDING CONSTRAINTS AND ENVELOPES | 0<br>1 | <br>Road radius change. Minor changes to lot dimensions, build envelopes 30,31. Added planning scheme setbacks and building rectangles |
| LYS–07 | ON–SITE SEWAGE FACILITIES | 0<br>1 | <br>Road radius change. Minor changes to lot dimensions. |
| LYS–08 | ELECTRICAL & COMMUNICATIONS SERVICES CONCEPT | 0<br>1 | <br>Road radius change. Minor changes to lot dimensions. |
| LYS–09 | WATER SERVICES CONCEPT | 0<br>1 | <br>Road radius change. Minor changes to lot dimensions. |




# LYSDALE ESTATE

EXISTING LOT:

L59 SP184725
LYSDALE ROAD, WONDAI, QLD

NUMBER OF LOTS:
40

AREAS:
4,001 m2 – 14.3ha

ACCESS:
HINES/HUSTONS ROAD

SERVICES:

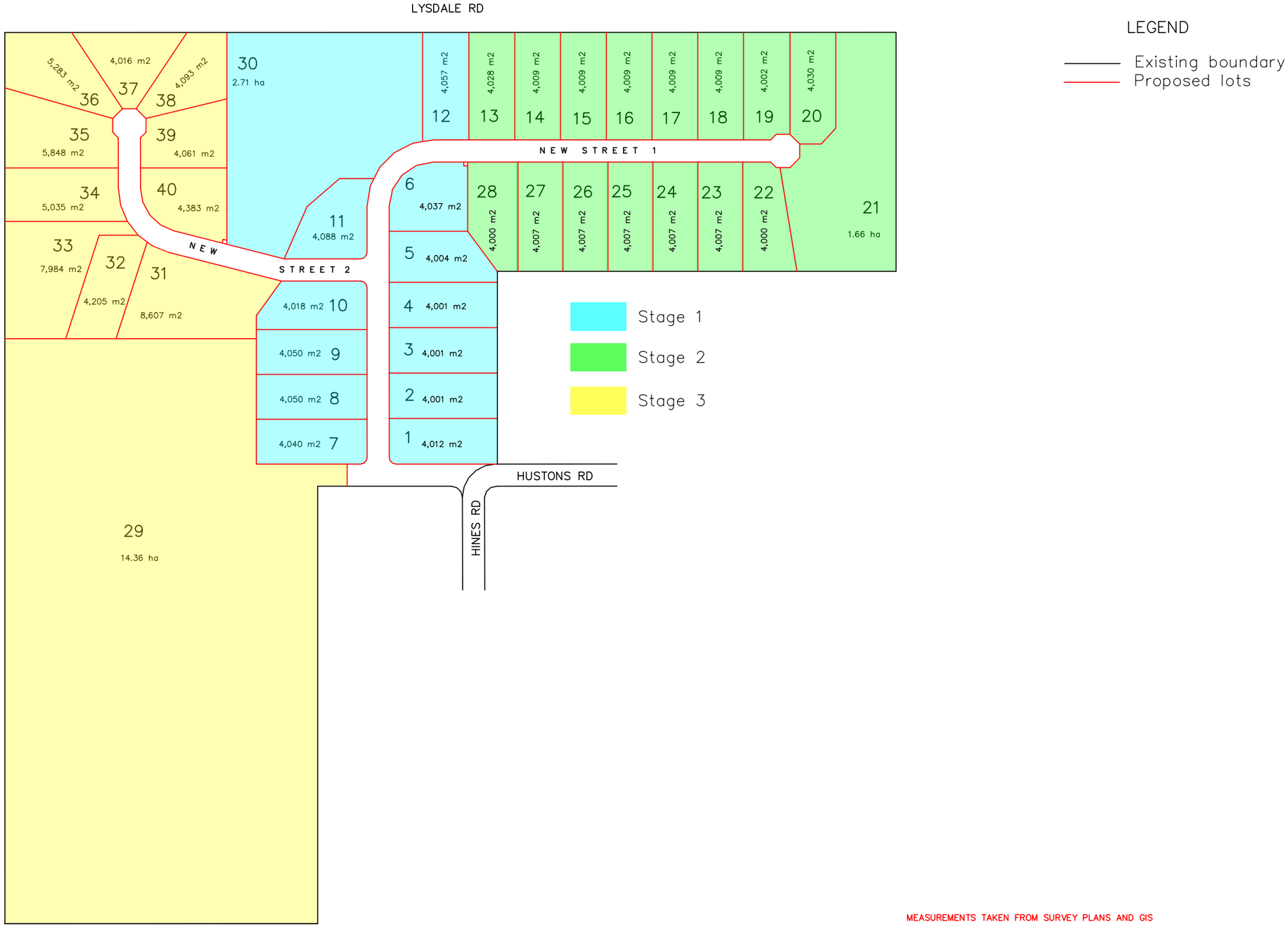
SEALED ROADS
RETICULATED WATER
UNDERGROUND POWER

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

1:1000 0m 10m 20m 30m 40m 50m
1:3500 0m 50m 100m 200m
1:4000 0m 50m 100m 200m 300m

| DRAWING REVISIONS | |
|---|---|
| REV | DATE |
| 0 | 11/10/25 |
| 1 | 2/12/25 |
| 2 | |
| 3 | |

| | | | |
|---|---|---|---|
| PROJECT: Subdivision L59SP184725 | TITLE: PROPOSAL PLAN – OVERVIEW | SHEET: LYS–01 | SCALE: 1:4000 A3 |




MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

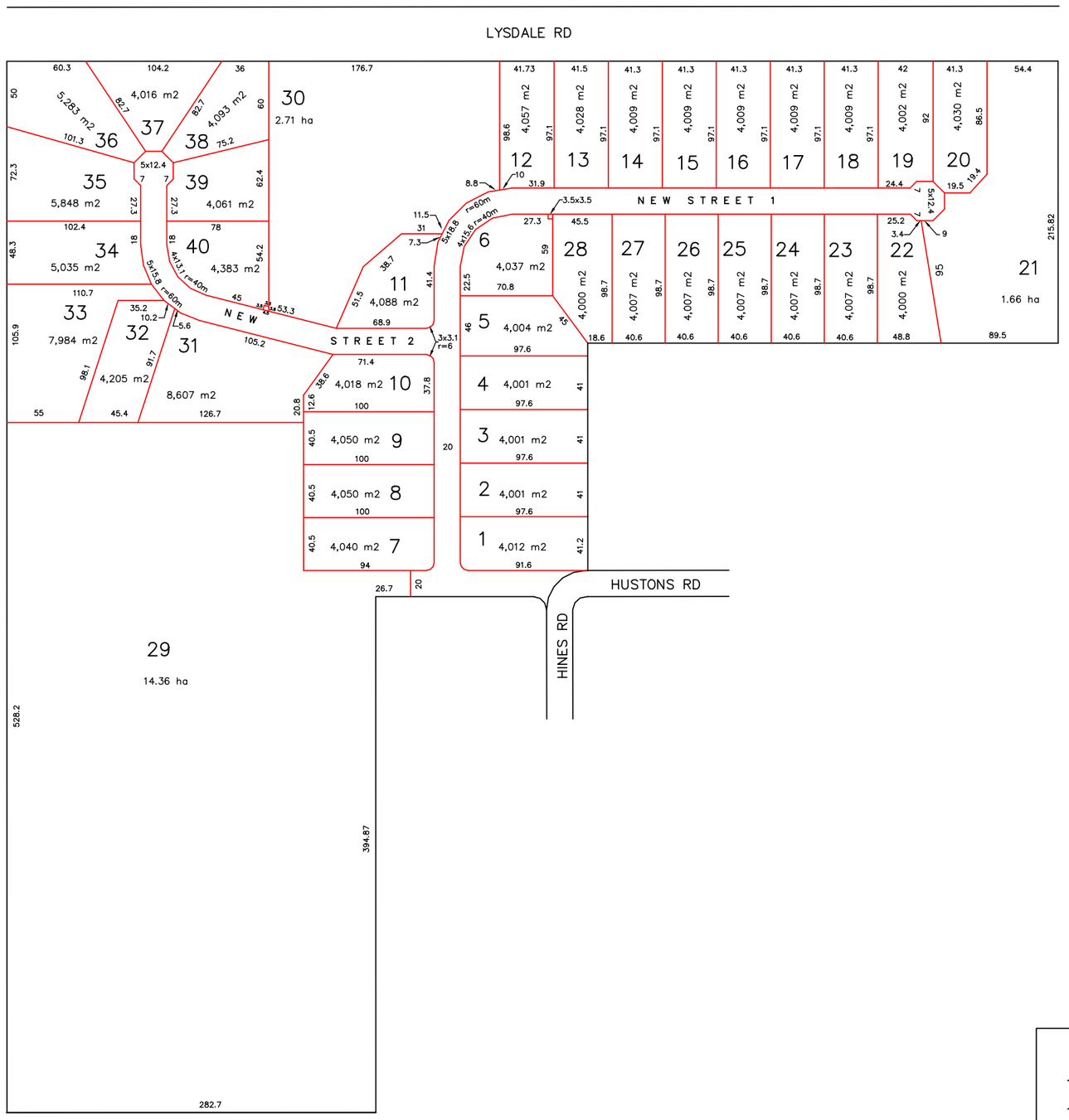
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1:3500 0m 50m 100m 200m

1:4000 0m 50m 100m 200m 300m

| DRAWING REVISIONS | |
|---|---|
| REV | DATE |
| 0 | 11/10/25 |
| 1 | 2/12/25 |
| 2 | |
| 3 | |

| PROJECT: Subdivision L59SP184725 | TITLE: GENERAL LAYOUT AND STAGEING | SHEET: LYS–02 | SCALE: 1:3500 A3 |
|---|---|---|---|




LEGEND

Existing boundary
Proposed lots

N

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

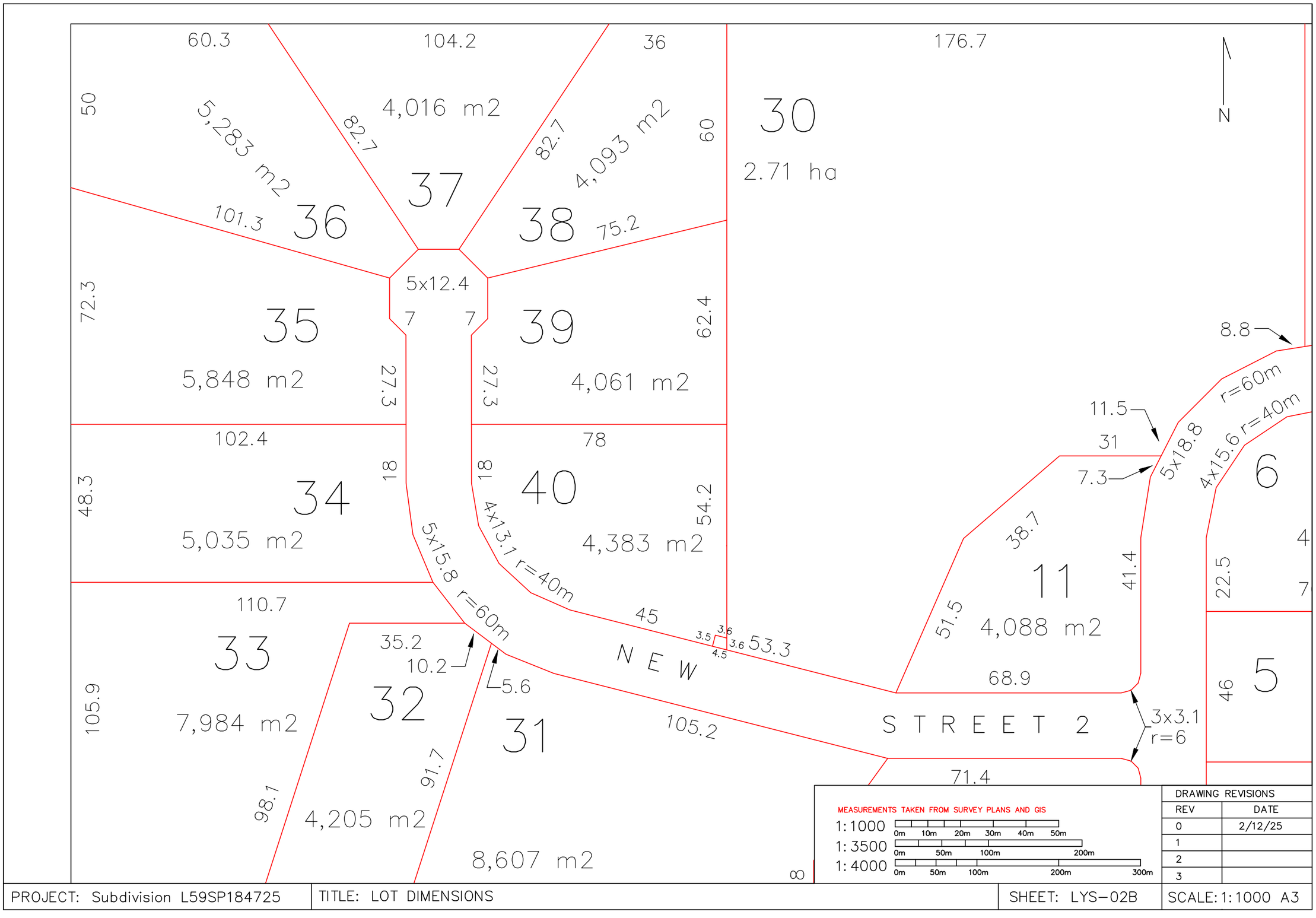
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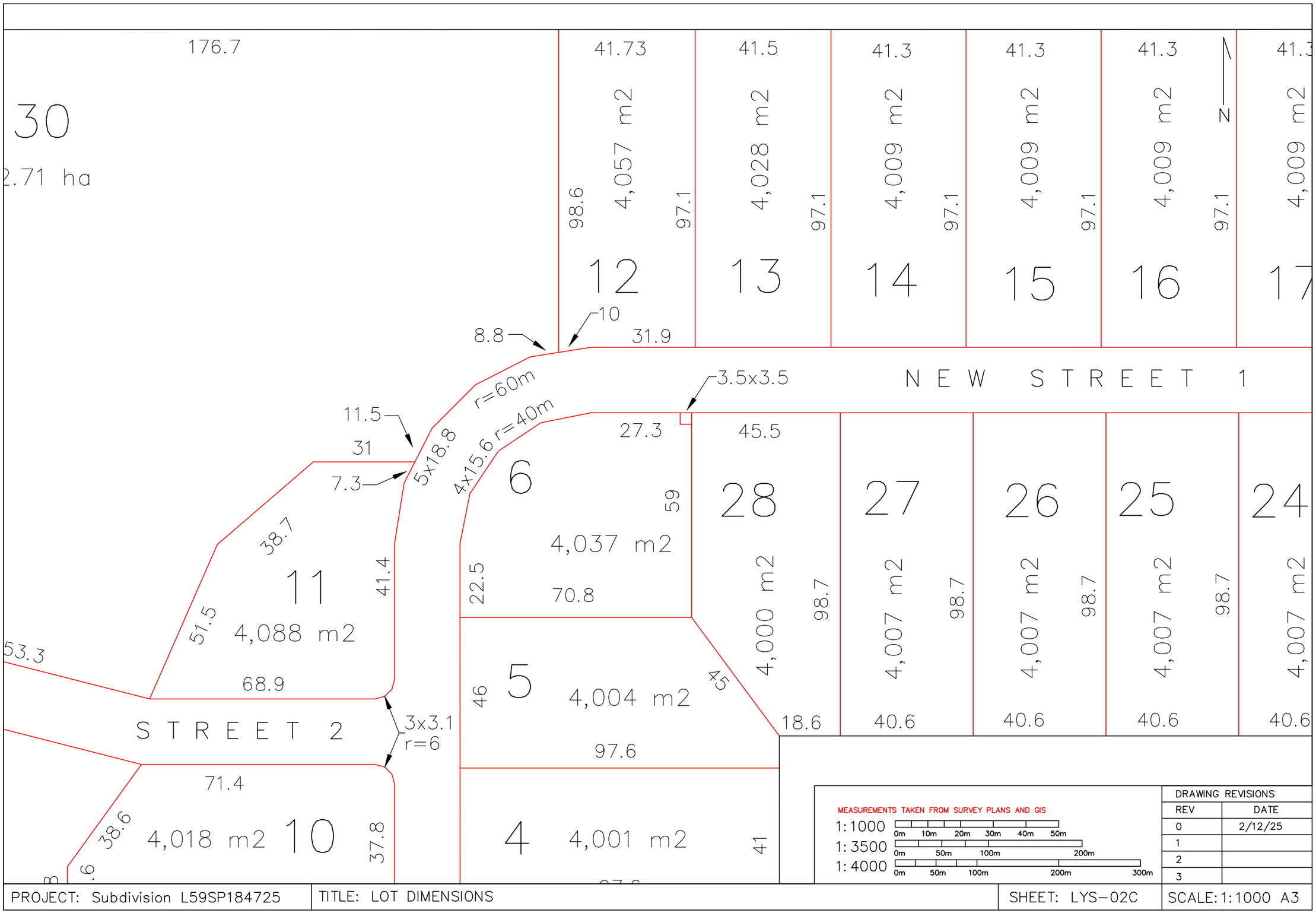
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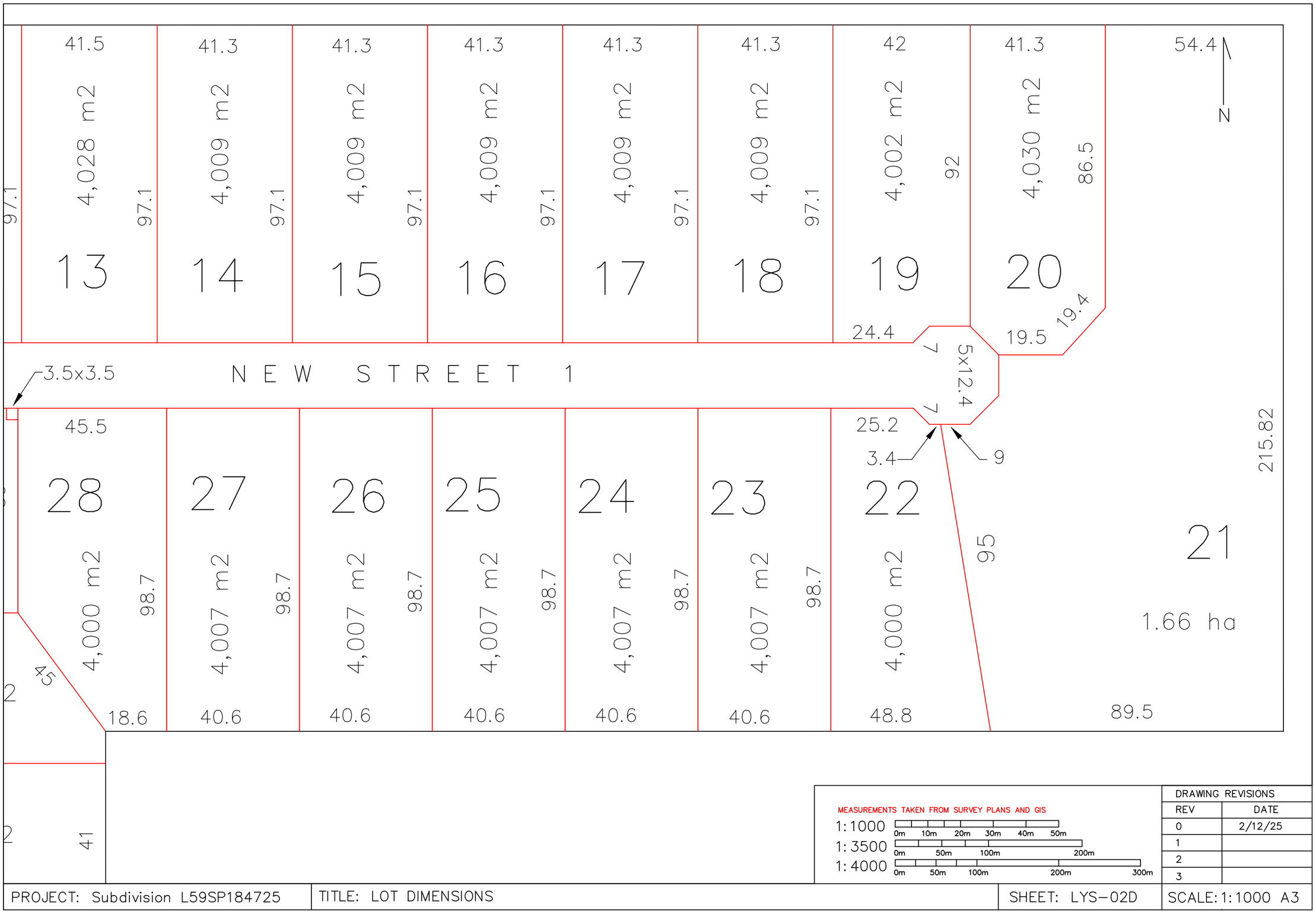
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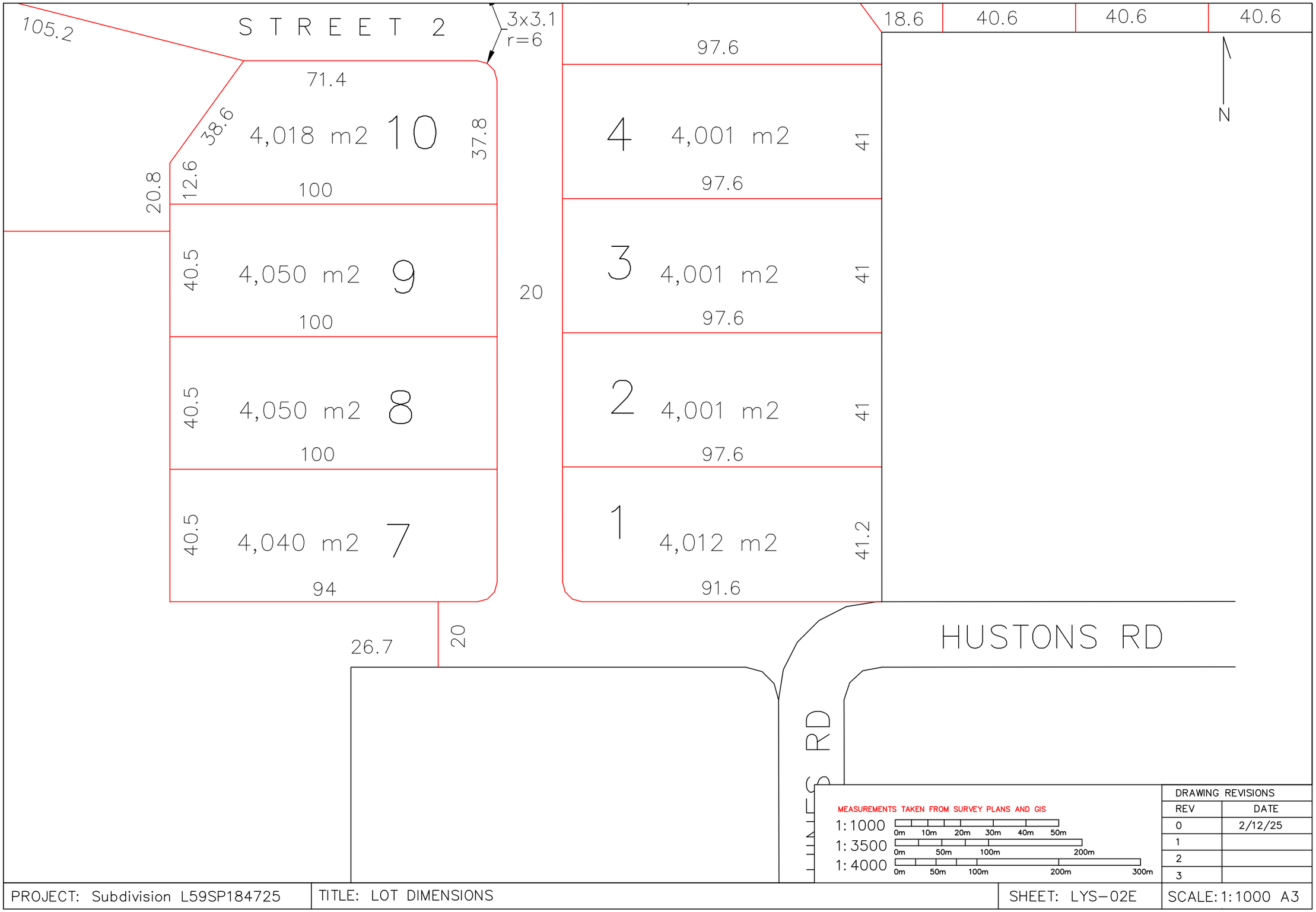
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|---|---|
| REV | DATE |
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| 1 | |
| 2 | |
| 3 | |

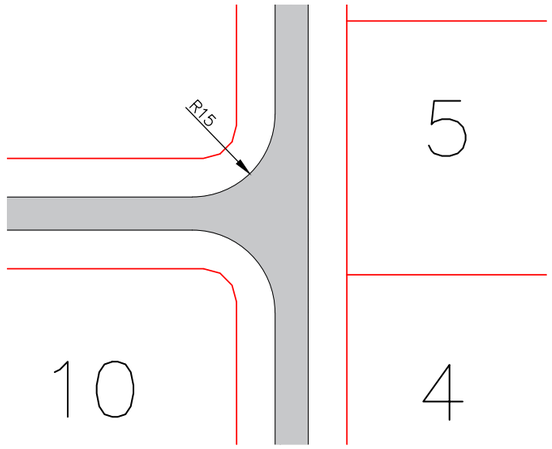
| PROJECT: Subdivision L59SP184725 | TITLE: LOT DIMENSION OVERVIEW | SHEET: LYS–02A | SCALE: 1:3500 A3 |
|---|---|---|---|


60.3
104.2
36
176.7
50
5,283 m2
82.7
4,016 m2
82.7
4,093 m2
60
30
2.71 ha
N
101.3
36
37
38
75.2
5x12.4
72.3
35
7
7
39
62.4
5,848 m2
27.3
27.3
4,061 m2
8.8
r=60m
r=40m
11.5
31
5x18.8
4x15.6
7.3
102.4
78
48.3
34
18
18
40
54.2
5,035 m2
4x13.1 r=40m
4,383 m2
6
38.7
41.4
22.5
4
7
5x15.8 r=60m
110.7
45
3.5
3.6
3.6
4.5
53.3
11
51.5
4,088 m2
35.2
10.2
33
N E W
68.9
5
46
105.9
32
5.6
7,984 m2
31
105.2
S T R E E T 2
3x3.1
r=6
91.7
98.1
4,205 m2
71.4
8,607 m2
8
MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS
1:1000 0m 10m 20m 30m 40m 50m
1:3500 0m 50m 100m 200m
1:4000 0m 50m 100m 200m 300m
DRAWING REVISIONS
REV DATE
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2 
3 
PROJECT: Subdivision L59SP184725
TITLE: LOT DIMENSIONS
SHEET: LYS–02B
SCALE: 1:1000 A3

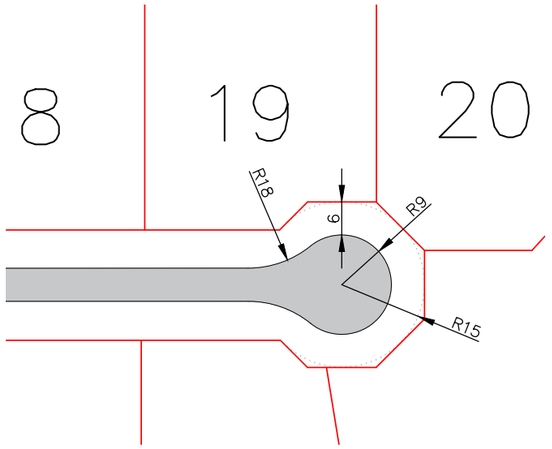

176.7
30
2.71 ha
41.73
41.5
41.3
41.3
41.3
41.3
4,057 m2
4,028 m2
4,009 m2
4,009 m2
4,009 m2
4,009 m2
98.6
97.1
97.1
97.1
97.1
97.1
12
13
14
15
16
17
N
8.8
10
31.9
r=60m
r=40m
11.5
31
3.5x18.8
4x15.6
3.5x3.5
N E W S T R E E T 1
27.3
45.5
7.3
38.7
41.4
51.5
11
4,088 m2
68.9
53.3
6
4,037 m2
59
22.5
70.8
28
27
26
25
24
4,000 m2
4,007 m2
4,007 m2
4,007 m2
4,007 m2
98.7
98.7
98.7
98.7
98.7
5
4,004 m2
97.6
46
54
18.6
40.6
40.6
40.6
40.6
S T R E E T 2
3x3.1
r=6
71.4
38.6
4,018 m2
10
37.8
4
4,001 m2
41
MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS
1:1000 0m 10m 20m 30m 40m 50m
1:3500 0m 50m 100m 200m
1:4000 0m 50m 100m 200m 300m
DRAWING REVISIONS
REV DATE
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1
2
3
PROJECT: Subdivision L59SP184725
TITLE: LOT DIMENSIONS
SHEET: LYS-02C
SCALE: 1:1000 A3


41.5
4,028 m2
97.1
13
41.3
4,009 m2
97.1
14
41.3
4,009 m2
97.1
15
41.3
4,009 m2
97.1
16
41.3
4,009 m2
97.1
17
41.3
4,009 m2
97.1
18
42
4,002 m2
92
19
41.3
4,030 m2
86.5
20
54.4
N
24.4
19.5
19.4
7
5x12.4
7
3.5x3.5
NEW STREET 1
45.5
28
4,000 m2
98.7
27
4,007 m2
98.7
26
4,007 m2
98.7
25
4,007 m2
98.7
24
4,007 m2
98.7
23
4,007 m2
98.7
22
4,000 m2
95
21
1.66 ha
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25.2
3.4
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54
18.6
40.6
40.6
40.6
40.6
40.6
48.8
89.5
41
MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS
1:1000 0m 10m 20m 30m 40m 50m
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1:4000 0m 50m 100m 200m 300m
DRAWING REVISIONS
REV DATE
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PROJECT: Subdivision L59SP184725
TITLE: LOT DIMENSIONS
SHEET: LYS-02D
SCALE: 1:1000 A3

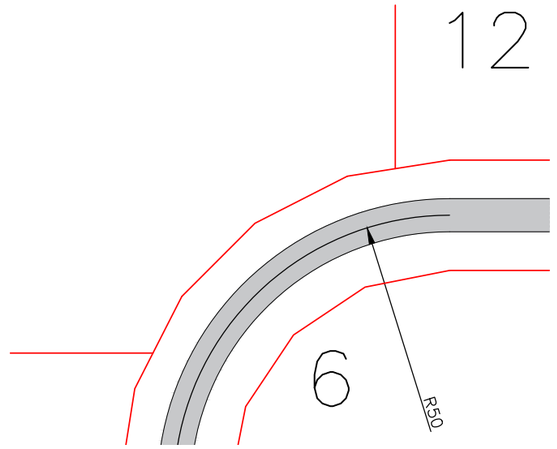

STREET 2
105.2
3x3.1
r=6
71.4
38.6
37.8
20.8
12.6
100
4,018 m2
10
40.5
4,050 m2
9
100
20
40.5
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8
100
40.5
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7
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97.6
4
4,001 m2
41
97.6
3
4,001 m2
41
97.6
2
4,001 m2
41
97.6
1
4,012 m2
41.2
91.6
18.6
40.6
40.6
40.6
N
HUSTONS RD
26.7
20
LINTEC RD
MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS
1:1000
0m 10m 20m 30m 40m 50m
1:3500
0m 50m 100m 200m
1:4000
0m 50m 100m 200m 300m
DRAWING REVISIONS
REV
DATE
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2/12/25
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PROJECT: Subdivision L59SP184725
TITLE: LOT DIMENSIONS
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SCALE: 1:1000 A3



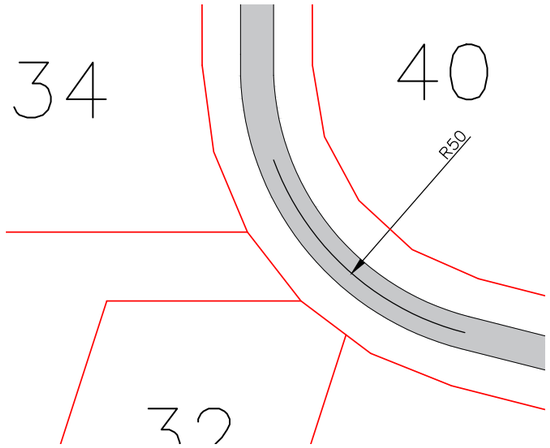

TYPICAL SECTION:
TEE INTERSECTION



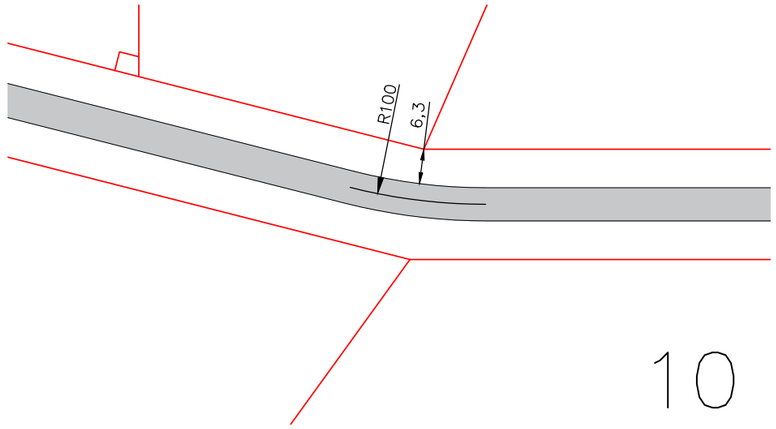

TYPICAL SECTION:
CUL DE SAC



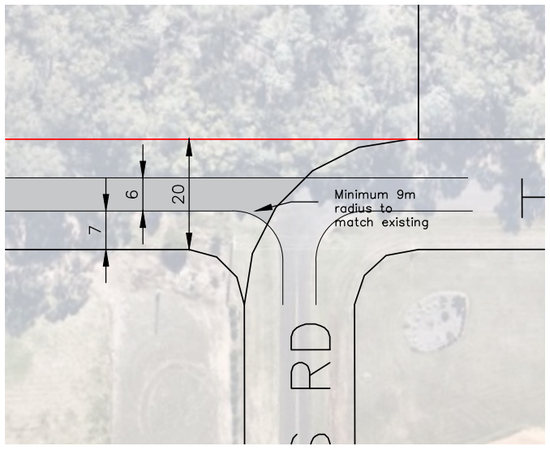

BEND NEW STREET 1




BEND NEW STREET 2




SWEEPING BEND NEW STREET 2




TYPICAL ROAD SECTION &
TRANSITION TO EXISTING ROADS

**SUBJECT TO DETAILED DESIGN BY AN RPEQ, THE PRELIMINARY HORIZONTAL GEOMETRY DESIGN OF THE PROPOSED ROADS SHOWN HEREIN SATISFIES RELEVANT ENGINEERING AND PLANNING SCHEME REQUIREMENTS.**

**PHILIP DE GUZMAN**
**RPEQ 21623**
3/12/2025

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

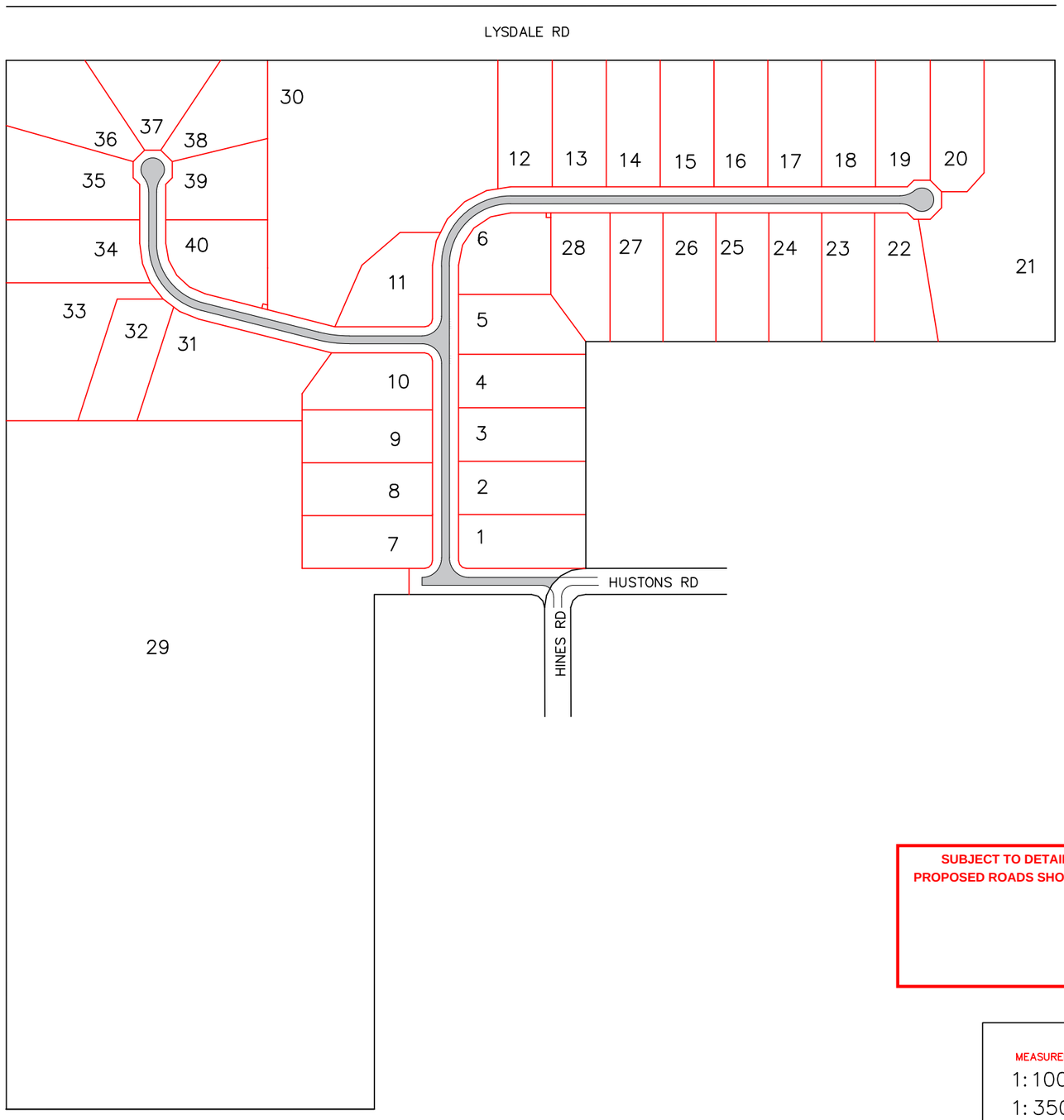
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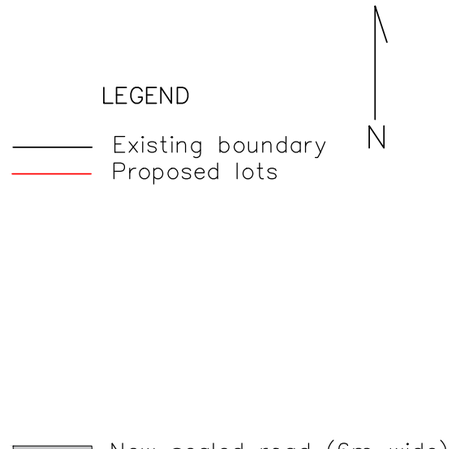
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SUBJECT TO DETAILED DESIGN BY AN RPEQ, THE PRELIMINARY HORIZONTAL GEOMETRY DESIGN OF THE PROPOSED ROADS SHOWN HEREIN SATISFIES RELEVANT ENGINEERING AND PLANNING SCHEME REQUIREMENTS.

**PHILIP DE GUZMAN**
**RPEQ 21623**

3/12/2025

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

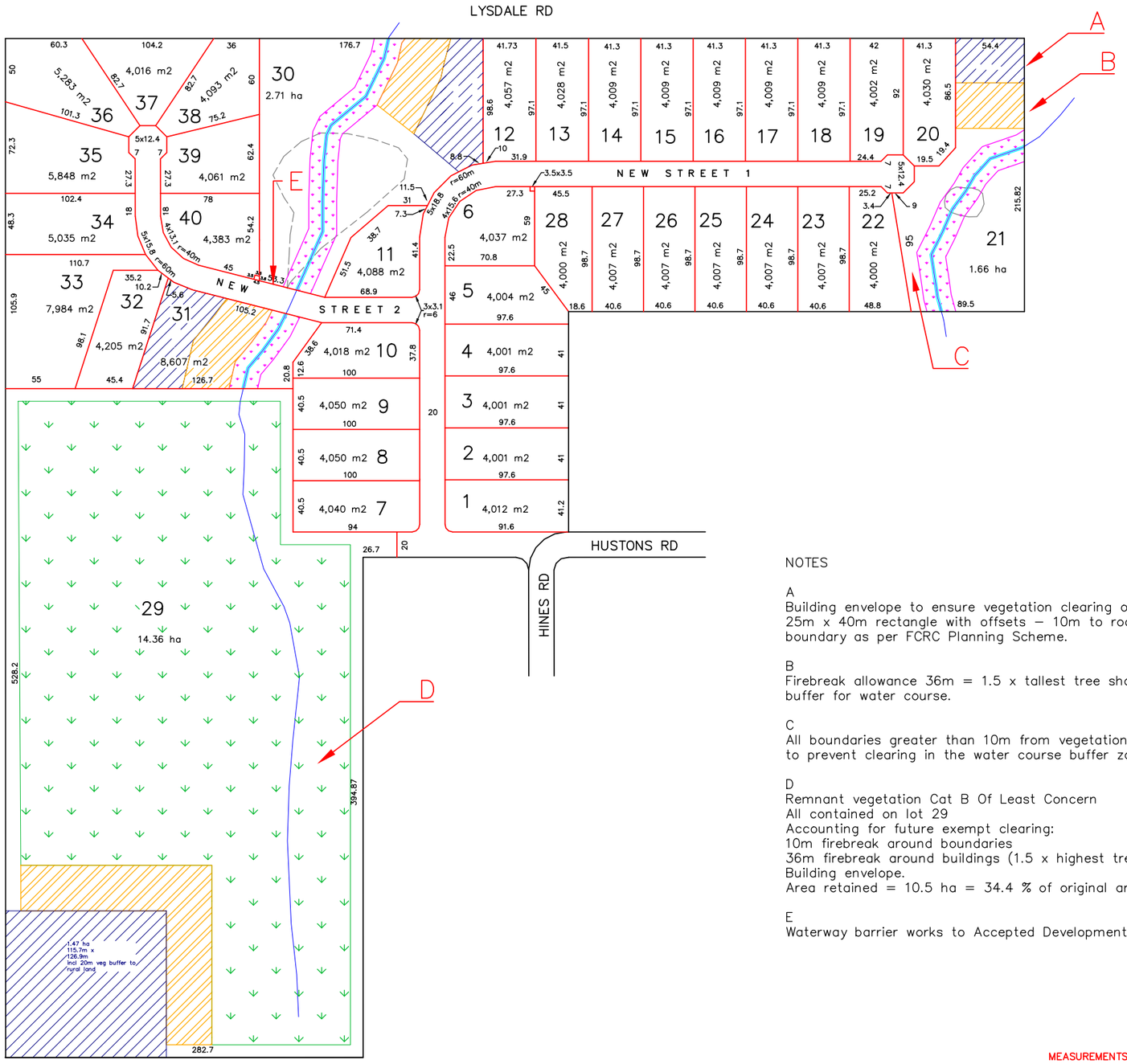
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LEGEND

- Existing boundary
- Proposed lots
- Order 1 water course
- Water course defining bank
- Dam
- Firebreak (36m)
- Building envelope
- Remnant veg post development
- Remnant veg water course buffer (10m each side)

N

NOTES

A
Building envelope to ensure vegetation clearing outcomes are controlled. Accommodates 25m x 40m rectangle with offsets – 10m to road frontage & 6m from side and rear boundary as per FCRC Planning Scheme.

B
Firebreak allowance 36m = 1.5 x tallest tree shown to prevent clearing in vegetation buffer for water course.

C
All boundaries greater than 10m from vegetation bufffers associated with water courses to prevent clearing in the water course buffer zone.

D
Remnant vegetation Cat B Of Least Concern
All contained on lot 29
Accounting for future exempt clearing:
10m firebreak around boundaries
36m firebreak around buildings (1.5 x highest tree)
Building envelope.
Area retained = 10.5 ha = 34.4 % of original area (30.53 ha)

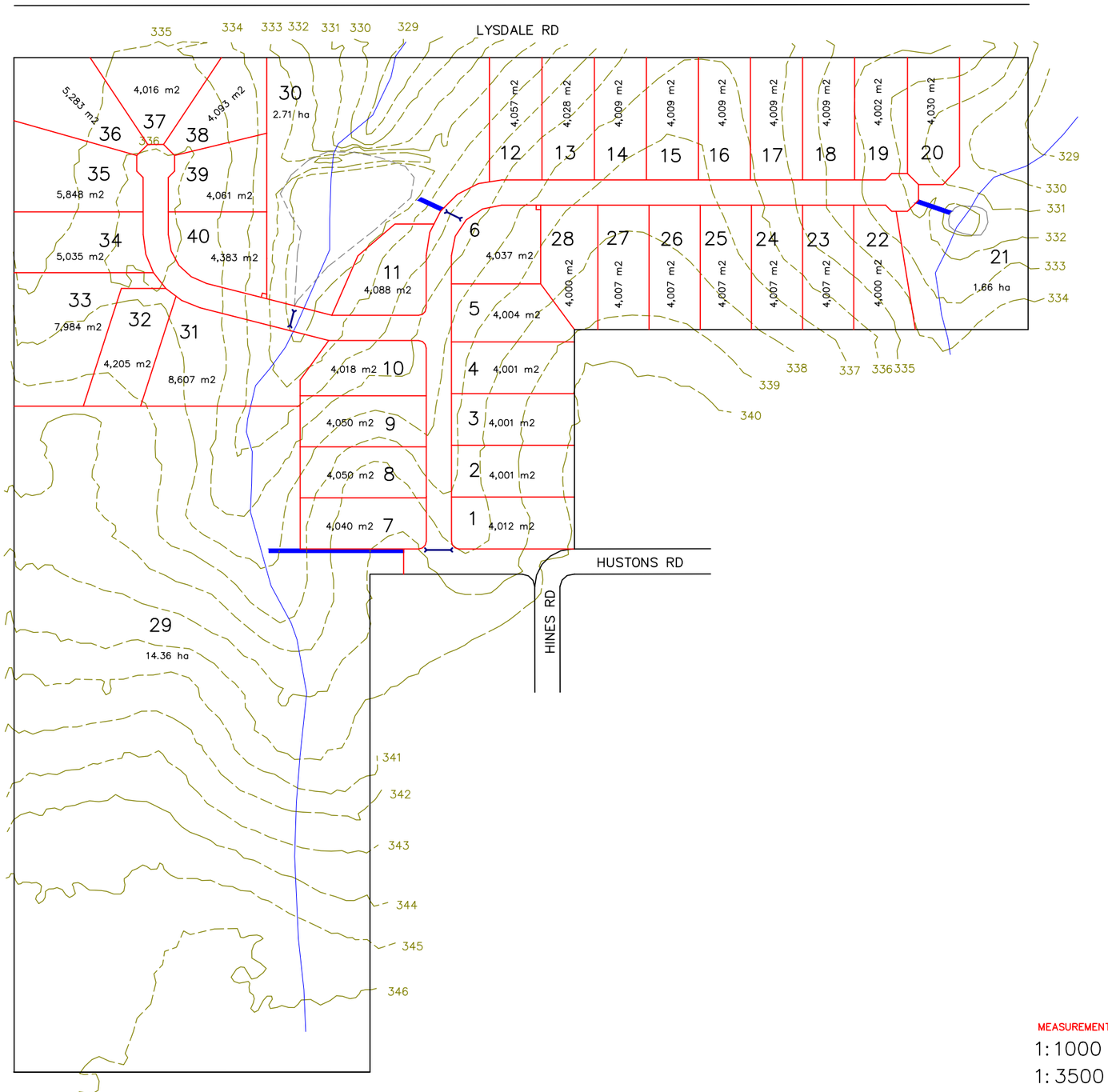
E
Waterway barrier works to Accepted Development design criteria

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

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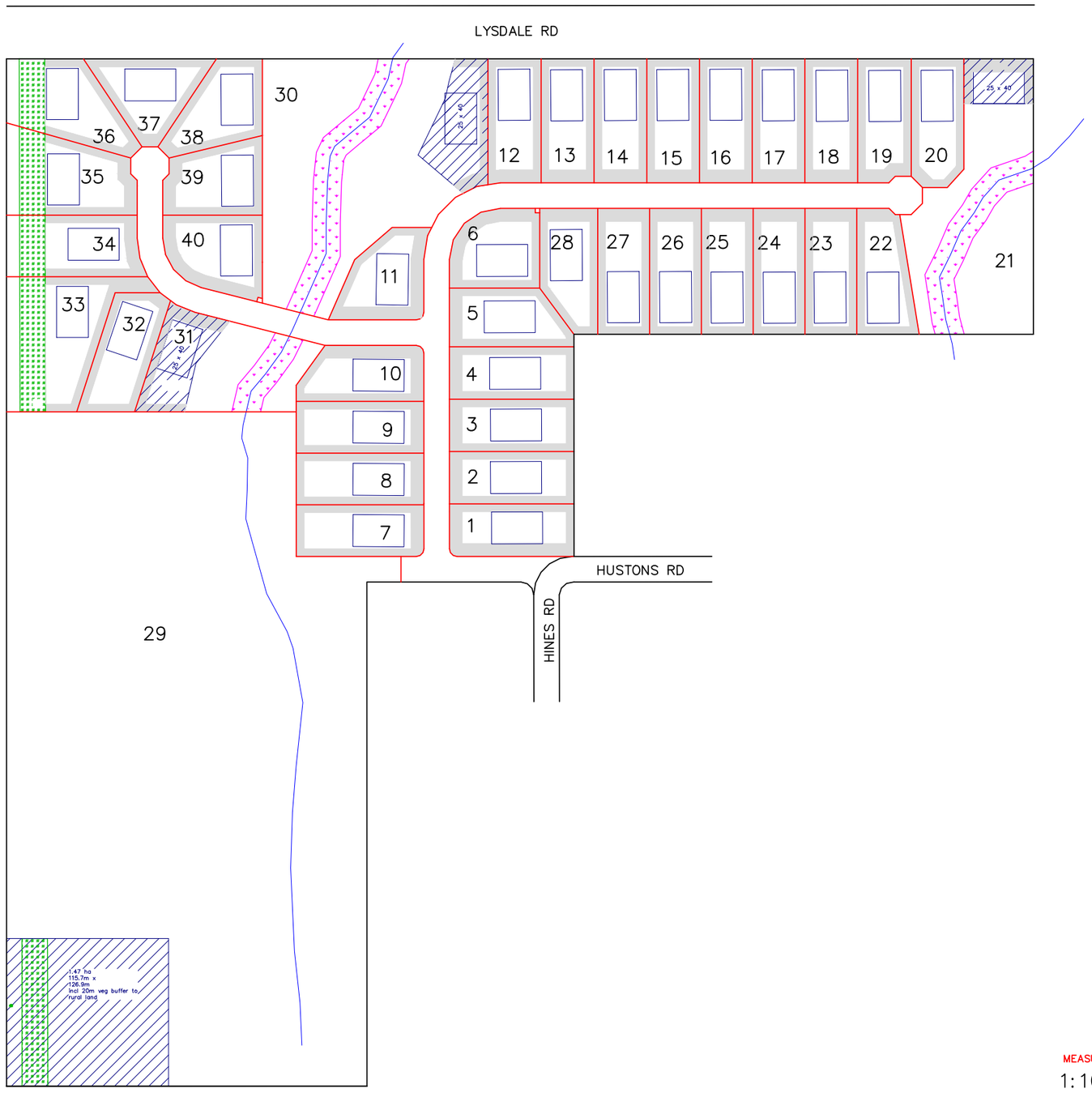
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| PROJECT: Subdivision L59SP184725 | TITLE: STORMWATER CONCEPT | SHEET: LYS–05 | SCALE: 1:3500 A3 |
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LEGEND

Existing boundary
Proposed lots
Order 1 water course

N

Building envelope

Remnant veg water course buffer (10m each side)

Building Exclusion. Veg buffer to Rural Land Zone (20m) Landscaped / Non-remnant

Set back 10m frontage 6m sides

Building rectangle 25mx40m (allowance not envelope)

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

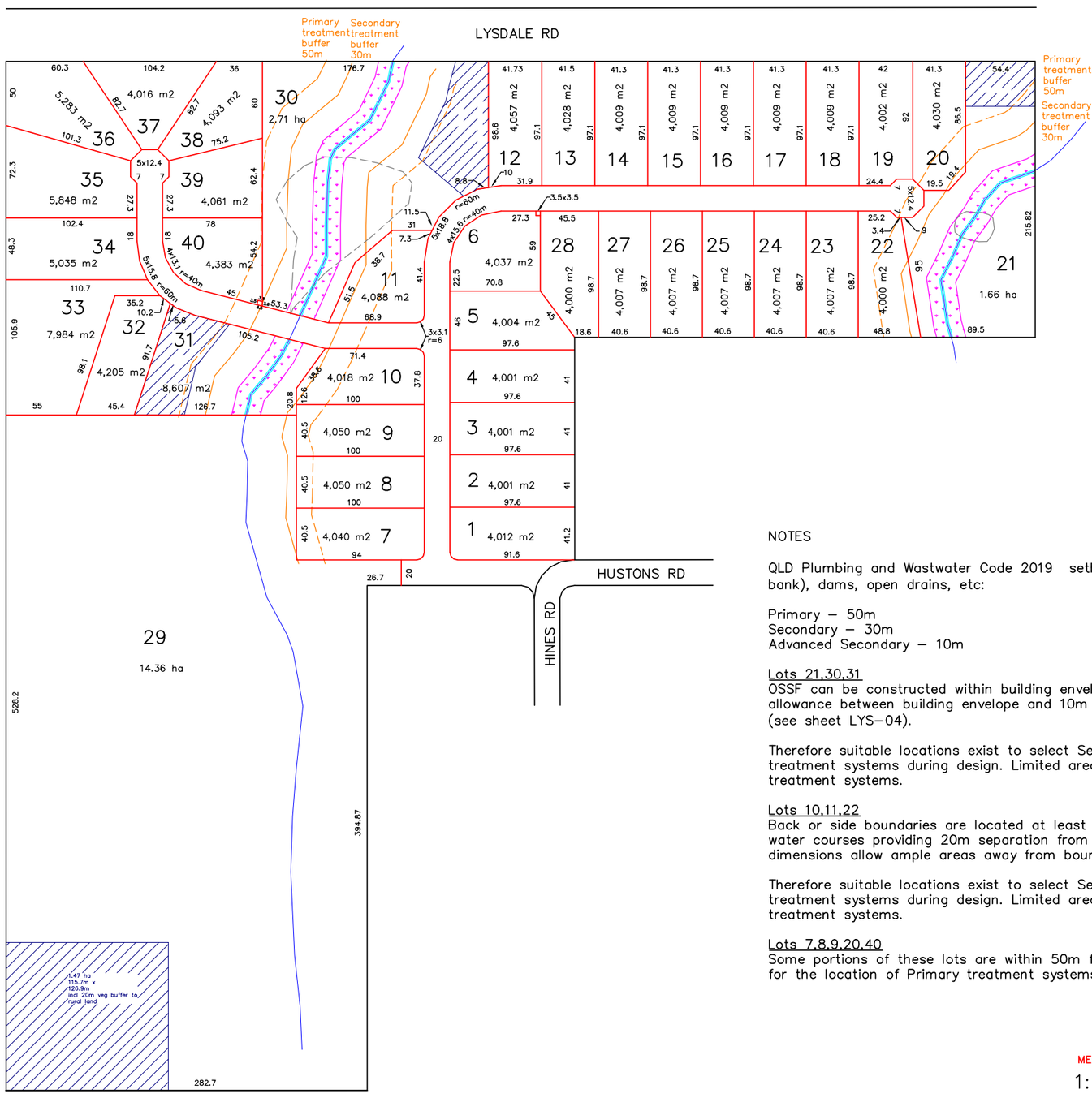
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| PROJECT: Subdivision L59SP184725 | TITLE: BUILDING CONSTRAINTS AND ENVELOPES | SHEET: LYS-06 | SCALE: 1:3500 A3 |
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LEGEND

- Existing boundary
- Proposed lots
- Order 1 water course
- Water course defining bank
- Dam
- Building envelope
- Remnant veg water course buffer (10m each side)

N

NOTES

QLD Plumbing and Wastewater Code 2019 setback distances to water course (top of bank), dams, open drains, etc:

Primary – 50m
Secondary – 30m
Advanced Secondary – 10m

Lots 21,30,31
OSSF can be constructed within building envelopes and within 36m firebreak allowance between building envelope and 10m vegetation buffer on water courses (see sheet LYS–04).

Therefore suitable locations exist to select Secondary or Advanced Secondary treatment systems during design. Limited areas would be available for Primary treatment systems.

Lots 10,11,22
Back or side boundaries are located at least 10m from 10m vegetation buffer on water courses providing 20m separation from boundary to water course. Lot dimensions allow ample areas away from boundaries.

Therefore suitable locations exist to select Secondary or Advanced Secondary treatment systems during design. Limited areas would be available for Primary treatment systems.

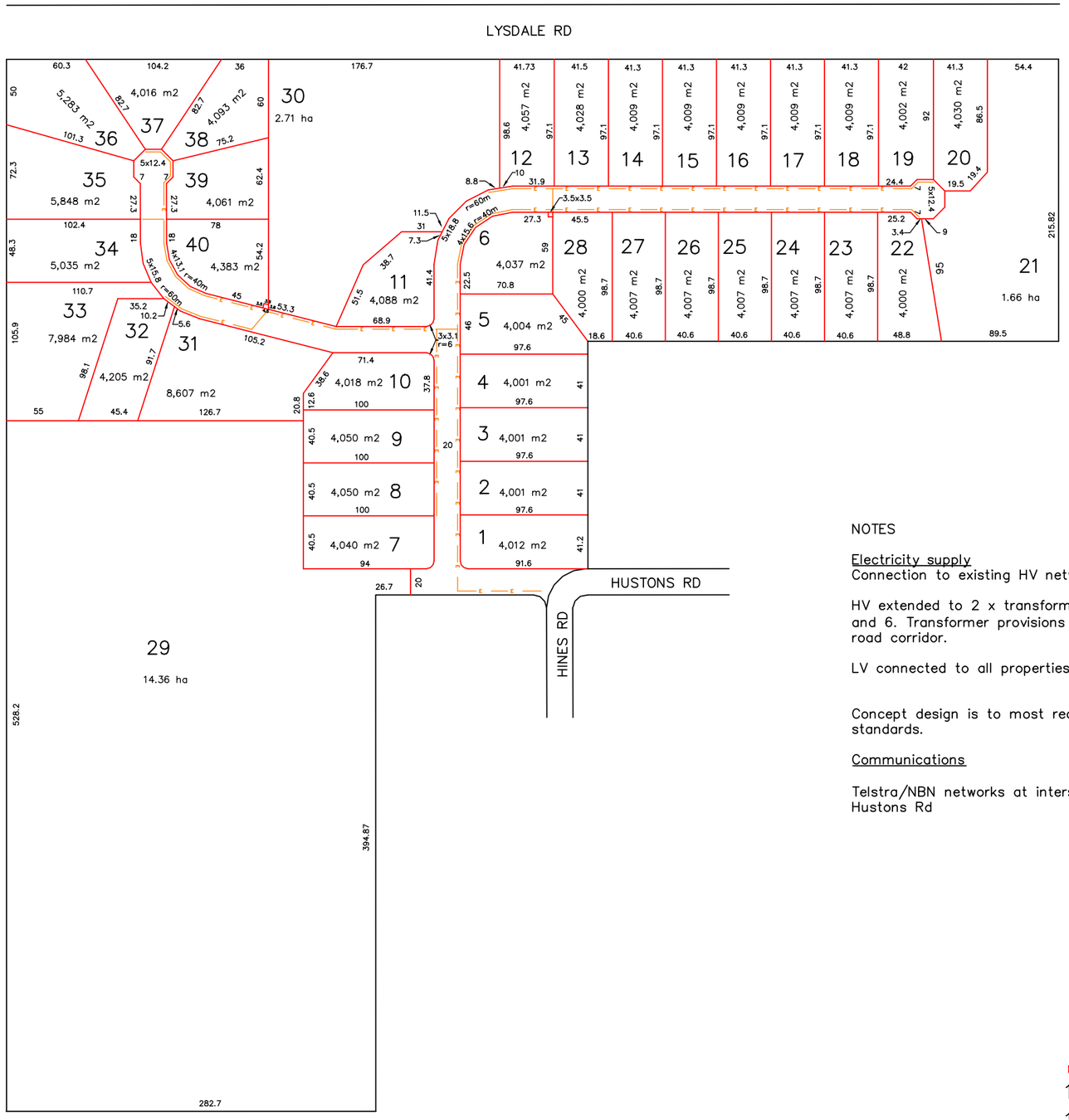
Lots 7,8,9,20,40
Some portions of these lots are within 50m from a water course. Restrictions exist for the location of Primary treatment systems on these lots.

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

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| PROJECT: Subdivision L59SP184725 | TITLE: ON–SITE SEWERAGE FACILITIES | SHEET: LYS–07 | SCALE: 1:3500 A3 |
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LEGEND

Existing boundary
Proposed lots

Electricity

N

NOTES

Electricity supply
Connection to existing HV network on Hustons Rd.

HV extended to 2 x transformers located at Lots 40 and 6. Transformer provisions 3.5m x 3.5m (min) in road corridor.

LV connected to all properties.

Concept design is to most recent Ergon Energy standards.

Communications

Telstra/NBN networks at intersection of Hines and Hustons Rd

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

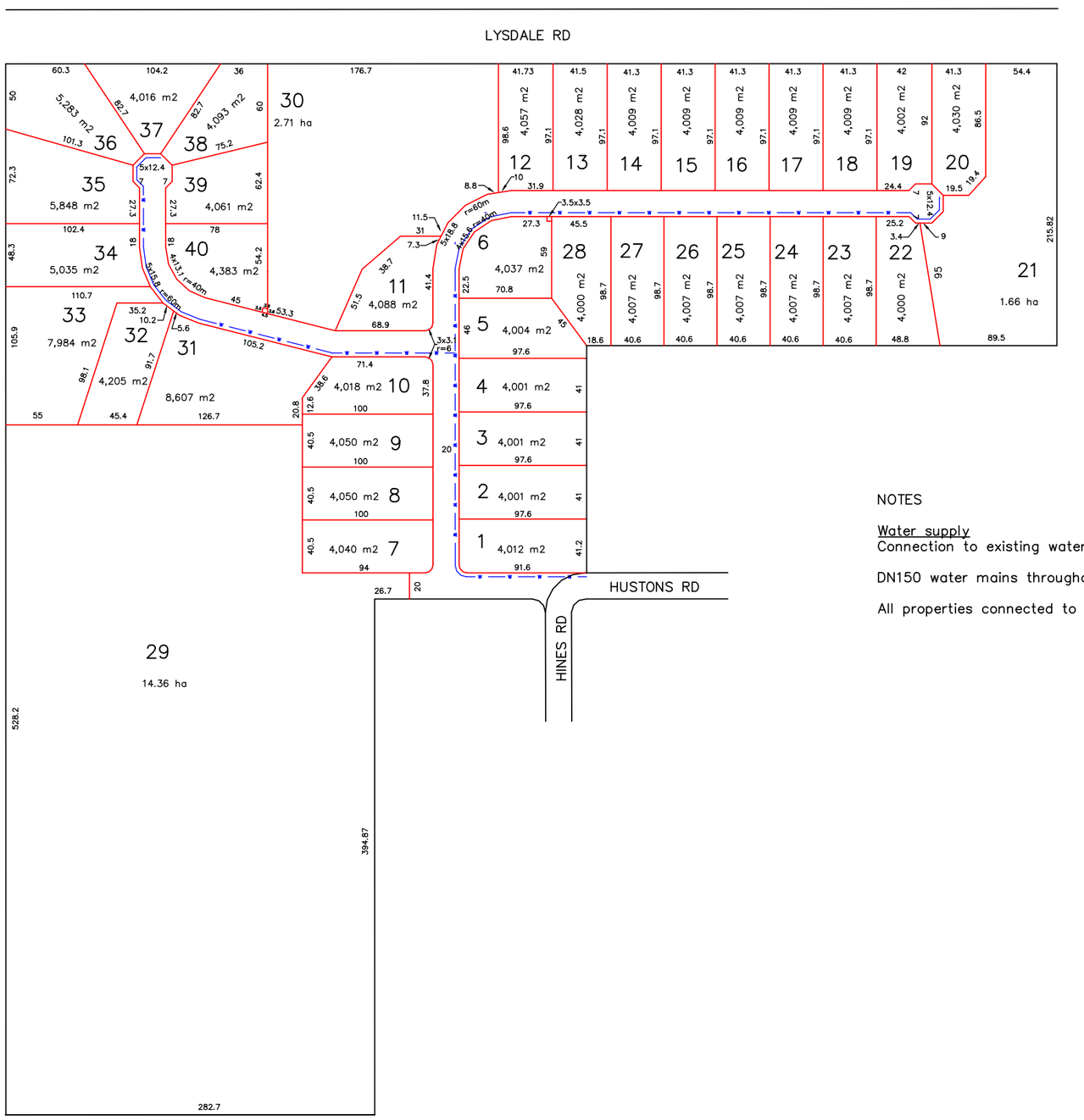
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| PROJECT: Subdivision L59SP184725 | TITLE: ELECTRICAL & COMMUNICATIONS SERVICES CONCEPT | SHEET: LYS–08 | SCALE: 1:3500 A3 |
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LEGEND

Existing boundary
Proposed lots

Water Supply

N

NOTES

Water supply
Connection to existing water network on Hustons Rd.

DN150 water mains throughout estate.

All properties connected to water.

MEASUREMENTS TAKEN FROM SURVEY PLANS AND GIS

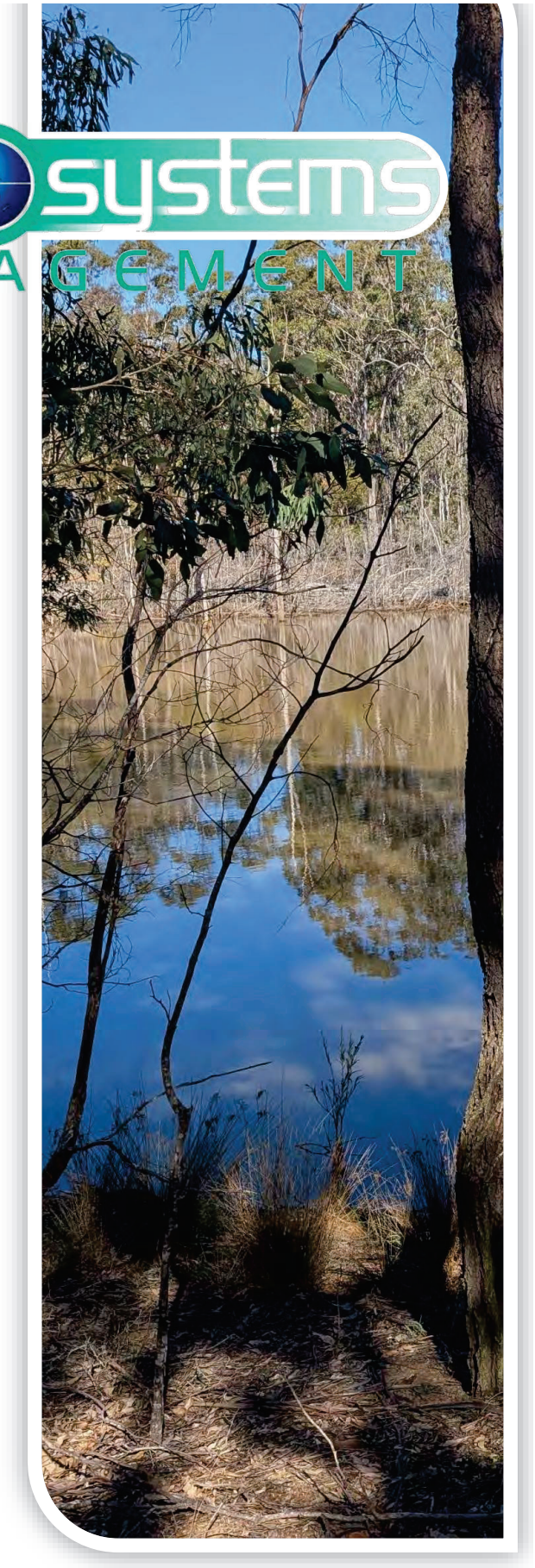
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| PROJECT: Subdivision L59SP184725 | TITLE: WATER SERVICES CONCEPT | SHEET: LYS–08 | SCALE: 1:3500 A3 |



# BUSHFIRE HAZARD ASSESSMENT AND MANAGEMENT PLAN

**LOT 59 LYSDALE ROAD,**
**WONDAI**
**(59SP184725)**

**TECHNICAL REPORT 7-50-30**

*Technological Solutions for Sustainable Natural Resource Management*

Ecosystems Management (Aust) Pty Ltd
ACN: 168 049 885
38 Darling Road
Jensen
QLD 4818

**STATEMENT OF QUALIFICATION**

This Bushfire Hazard Assessment Report has been prepared by Marcia Griebenow. I have 20 years' experience in bushfire management and environmental management, practicing in Victoria, New South Wales and Queensland. I have a Bachelor of Environmental Science (Management) from Charles Sturt University, and the Postgraduate Diploma in Bushfire Protection from the University of Western Sydney.
I am suitably qualified and experienced to undertake Bushfire Hazard Assessment and prepare recommendations for bushfire management planning and construction requirements in bushfire prone areas.

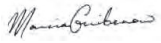


**Marcia Griebenow** BEnvSc GradDip (Bushfire Protection) MEIANZ

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# 1. INTRODUCTION

Ecosystems Management (Aust) Pty Ltd (EMA) has been engaged to undertake a Bushfire Hazard Assessment, and subsequently prepare a Bushfire Management Plan (BMP) for Lot 59 on Plan SP184725 in Wondai, to support a 1 into 40 lot reconfiguration and meet the requirements of section 7.2.1 (Bushfire Hazard Overlay Code) of the South Burnett Regional Council Planning Scheme.

According to the South Burnett Regional Council Bushfire Hazard Mapping, the subject lot is identified as being within a Medium bushfire hazard area. Under the South Burnett Regional Council planning scheme, land encumbered under the Bushfire Hazard mapping overlay must have a Bushfire Hazard Assessment conducted to ensure that the development does not increase the risk to life, property, community and the environment in accordance with the purpose of the Bushfire Hazard Overlay Code. Where sufficient hazard is identified, a Bushfire Management Plan is required to manage the identified risk.

This bushfire hazard assessment is prepared with regard to:

- *7.2.1 – Bushfire Hazard Overlay Code* of the South Burnett Regional Council Planning Scheme,
- State Planning Policy guidance material

# 2. PROPOSED DEVELOPMENT

The proposal is for reconfiguration of the existing lot to create 40 rural residential lots, with an internal connecting road network. The development will be serviced by reticulated water, and is accessible via the existing public road network.

# 3. DEVELOPMENT APPROVAL AND CONDITIONS

Development approval is sought under state planning legislation. The relevant planning scheme under state planning legislation is the South Burnett Regional Council Planning Scheme (version 2.0, 2024). This Bushfire Hazard Assessment addresses the requirements of 7.2.1 – Bushfire Hazard Overlay Code.

## 3.1. STATE PLANNING POLICY

The State Planning Policy (SPP) addresses development in relation to the risk from natural hazards, by establishing planning constraints based on a statewide risk assessment. Where local government planning schemes do not prepare a bushfire hazard overlay code specifically for their LGA, planning controls default to the statewide hazard mapping and the SPP requirements for development in bushfire prone areas.

The Queensland Government has produced a technical manual (**Bushfire Resilient Communities** (QFES, 2019)) to support the state planning policy, describing the methodology used for statewide hazard mapping and providing a guideline for preparing localised bushfire hazard area maps.

## 3.2. PLANNING SCHEME

**THE PROPERTY IS ENCUMBERED BY THE BUSHFIRE HAZARD OVERLAY (PLANNING SCHEME MAP OM2) ACROSS THE ENTIRETY OF THE LAND PARCEL, AND THEREFORE REQUIRES ASSESSMENT AGAINST THE BUSHFIRE HAZARD OVERLAY CODE.**

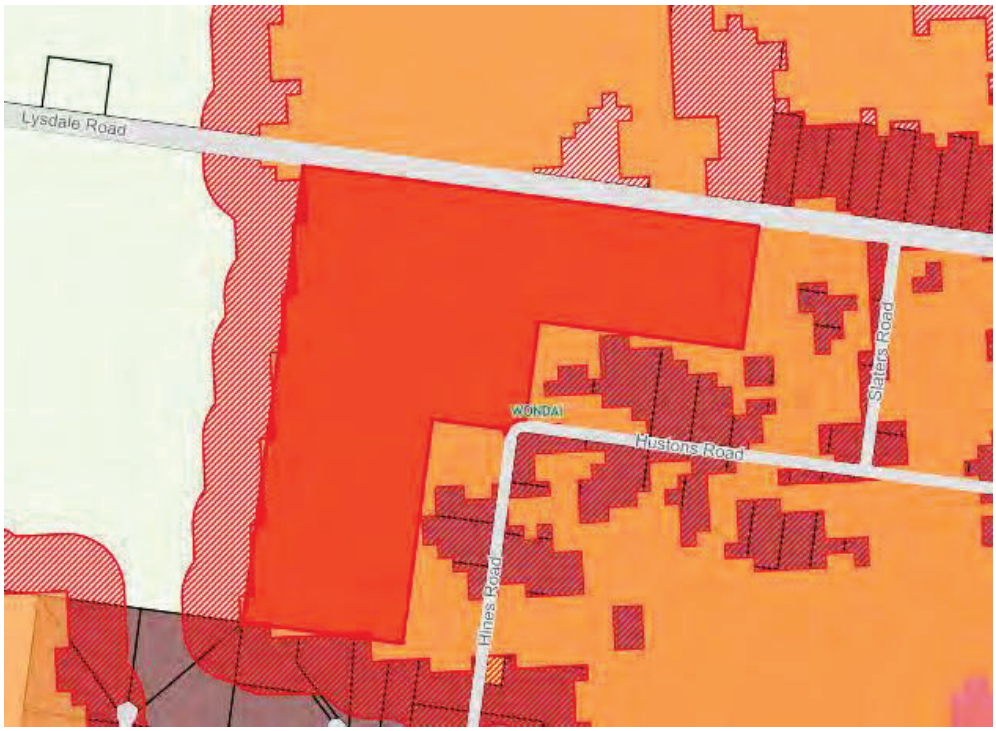



Figure 1 shows the subject property with reference to the Bushfire Hazard Overlay.



FIGURE 1 SUBJECT SITE WITH MEDIUM BUSHFIRE HAZARD (SOUTH BURNETT REGIONAL COUNCIL, 2023)

### 3.3. AUSTRALIAN STANDARDS

The planning scheme refers to building controls for construction in bushfire prone ares (National Construction Code and AS3959), and identifies the bushfire hazard overlay as the referral mechanism for the purposes of compliance with building regulations. State planning policy technical guidance material provides the necessary methodology for evaluation of bushfire hazard in the context of addressing risk associated with planning approvals, and subsequently, the methodology described in AS3959 will not be referenced further in this hazard assessment and management plan.

# 4. BUSHFIRE HAZARD ASSESSMENT

This section contains the information required to complete the Bushfire Hazard Assessment. Principal factors influencing fire behaviour are bushfire fuels, fire weather and topography (slope).

Fire will spread faster, with higher intensity, when travelling upslope. Conversely, rate of spread and potential intensity is lower when traveling downhill. High fuel loads (particularly fine fuels such as grass and small (< 6mm diameter) twigs and branches) will promote a faster rate of spread and higher intensity than a lower fuel volume; longer grass will promote higher intensity and rate of spread than shorter grasses.

## 4.1. SITE DESCRIPTION

### 4.1.1. LOCATION

The subject site is located 2.3km north west of Wondai town centre, and 25.6km north of Kingaroy. The subject site is currently comprised of a single Lot totalling 37.12ha, located on the north western extent of the Wondai township, in a rural residential zoned area bordering rural agricultural land parcels. The subject site is accessed from the junction of Hines Road and Hustons Road, with close connection to the Bunya Highway as the main transport link for the area (see Site Location Map in Appendix A).

To the west the subject site is bordered by a large rural agricultural land parcel, featuring a large dam adjacent to the north west of the site, low bushfire fuels, and a high degree of management. To the south and east the subject site is adjacent to a number of rural residential land parcels, all of which feature established residential development, and are maintained to a high degree, with very low bushfire fuels present across the majority of their area. The Lysdale Road reserve bounds the site to the north, providing a de facto fire break absent of bushfire fuels. Beyond Lysdale road to the north is a large rural land parcel featuring semi-natural vegetation. This vegetation has an intact overstory of mature trees, with the southern section of this site having a moderate degree of management that has reduced the surface, near surface, and elevated fuels present, and with the south eastern section of the site being managed to a very high degree around the developed use of the site.

Within the broader landscape there is a general divide in bushfire fuels present locally to the east and west of the Bunya Highway. West of the Bunya Highway (where the subject site is located) is dominated by agricultural land use, with a mixture of crop growing and grazing within well managed land parcels, and low bushfire fuels present. To the east of the Bunya Highway (and to the south and east of the Wondai township) are the McEuen State Forest and Wondai State Forest, connecting to the Cherbourg National Park and Cherbourg Conservation Park, with some additional connection to additional natural vegetation on private land to the north.

### 4.1.2. PROPOSED DEVELOPMENT AND OPERATION

The proposal is for the Reconfiguration of a Lot under the requirements of the South Burnett Regional Council Planning Scheme to allow for subdivision of the site into 40 rural residential lots as depicted in Figure 2.

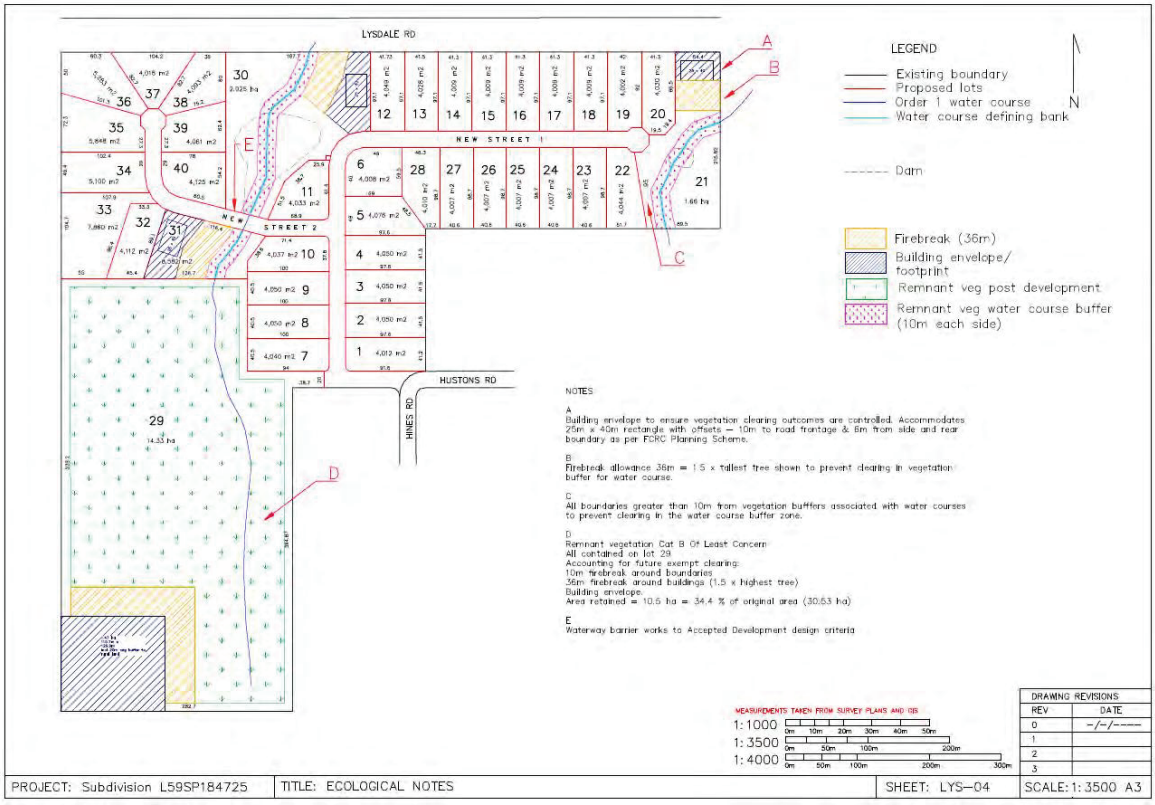



FIGURE 2 CONCEPT LAYOUT (CONCEPT LAYOUT 5A ECOLOGICAL NOTES, REV 1, 09/06/25)

## 4.2. TOPOGRAPHY AND HYDROLOGY

The subject site is located within an area of generally flat land to the north east of the Wondai township, with the local area is defined as being located within the South Burnett biogeographic subregion. The subject site (and the Wondai township) occurs on an area of flat plains, with a horseshoe of increased slope surrounding to the west, south, and east. This area of slope has low localised peaks, but forms a broad area of variable slope, rather than a typical range. The closest area of increased, variable slope occurs 3.8km to the east of the subject site.

The subject site itself is close to flat uniformly across the majority of its area, with very low consistent slope rising to the south. There are very localised areas of steep slope associated with the dam earthworks present on and adjacent to the site, with no other areas of increased slope present (see Topography and Hydrology Map in Appendix A).

Outside of anthropogenic features, slope across the site varies between 1 and 4 degrees. Dam walls feature slope up to 32 degrees across a limited slope run of up to 7m only. This is reflected in all areas adjacent to the subject site, with very low slope of 1 to 4 degrees, and increased slope only associated with dam earthworks.

State-wide drainage mapping shows two first order water courses present within the subject site, both of which flow south to north, and enter the dams present to the west and east of the site respectively. The watercourses form part of the Barker and Barambah Creeks catchment, ultimately joining the Burnett River, and discharging at the northern extent of Hervey Bay.

To accurately reflect the influence of slope on bushfire behaviour across the landscape, a smoothed slope model (as specified in Leonard et al., 2014) is utilised for bushfire hazard calculations. This may exclude very localised slope areas that may be shown in the Topography and Hydrology Map in Appendix A which would have no material effect on bushfire behaviour.

## 4.3. FIRE WEATHER

Fire weather refers to the suite of conditions that contribute to the propagation of bushfire. This includes temperature, humidity, rainfall, days since rain and wind. The nearest Bureau of Meteorology weather station is Kingaroy Airport (replacing Kingaroy Prince Street in 2001) (Station number 040922, located at Kingaroy Airport (BOM, 2025)).

The site is within the subtropical region of south eastern Queensland. This area is characterised by cool winters and warm summers. Increased rainfall typically occurs from October to March. The fire season is usually recognised as the period from June, until the commencement of summer rainfall (which may be variable).

### 4.3.1. TEMPERATURE

Mean maximum temperatures occur in January (30.9 $^{o}$C), and mean minimum temperatures occur in July (3.9 $^{o}$C) (Figure 3).

### 4.3.2. HUMIDITY AND RAINFALL

The climate can generally be classified as having moderate humidity, with the minimum humidity occurring in October with a mean 3pm relative humidity of 33%, and maximum humidity occurring in February with a mean 3pm humidity in February at 52% (Figure 4).

Rainfall is uniformly low from April to September, with 53% of annual rainfall occurring from December to March (Figure 4). Significant drying of grasses and increased leaf drop can be observed throughout August and September, as soil moisture declines. Evaporation (Figure 5) increases throughout Spring as daily temperatures and solar exposure increase, with low humidity and increased drying from wind exacerbating grass and fine fuel curing throughout this period.

### 4.3.3. WIND

The predominant winds throughout the year are from the east and south east (Figure 6). These winds are moist, rather than dry, and therefore have a lesser drying effect on fine fuels in the region. Occasionally dry winds come from the west (as well as the north west and south west), however, these are less common and typically do not persist for more than a couple days at a time. Wind strength is highest during late winter and early spring with gusting winds occurring from variable prevailing wind direction, increasing the rate at which fine fuels may dry (Figure 4).

Wind direction and strength is also a consideration for fire suppression in terms of bushfire behaviour. A bushfire will travel quicker in strong winds, and potentially demonstrate higher intensity due to the increase in air availability to the seat of the fire. Higher strength winds that may occur through September to November can increase fire danger across the region.

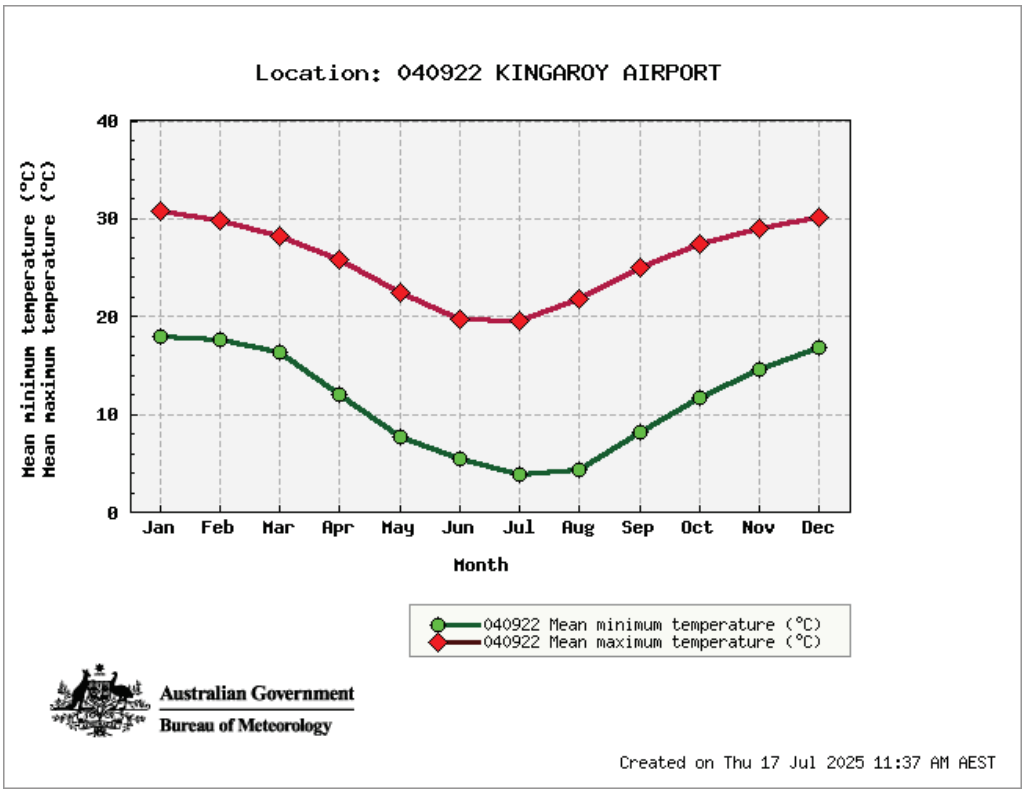



FIGURE 3 MEAN MAX AND MEAN MIN TEMPERATURES FOR KINGAROY AIRPORT (STATION 040922) (BOM, 2025)

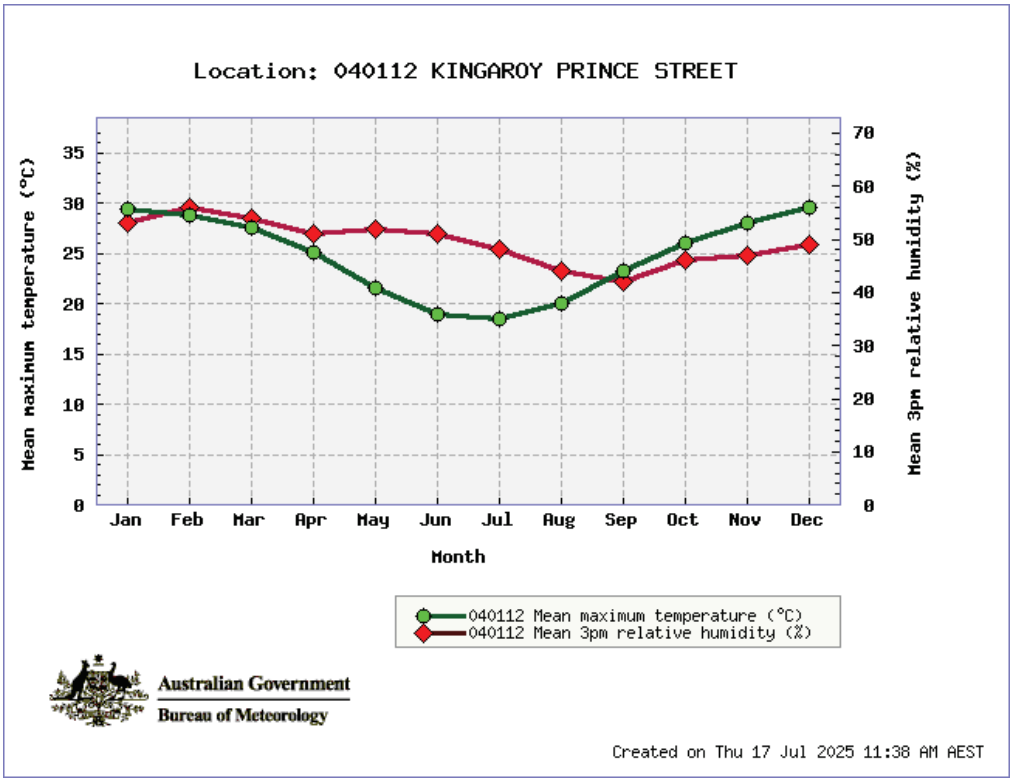



FIGURE 4 MEAN 3PM RH AND MEAN 3PM WIND SPEED FOR KINGAROY PRINCE STREET (STATION 040112) (BOM, 2025)

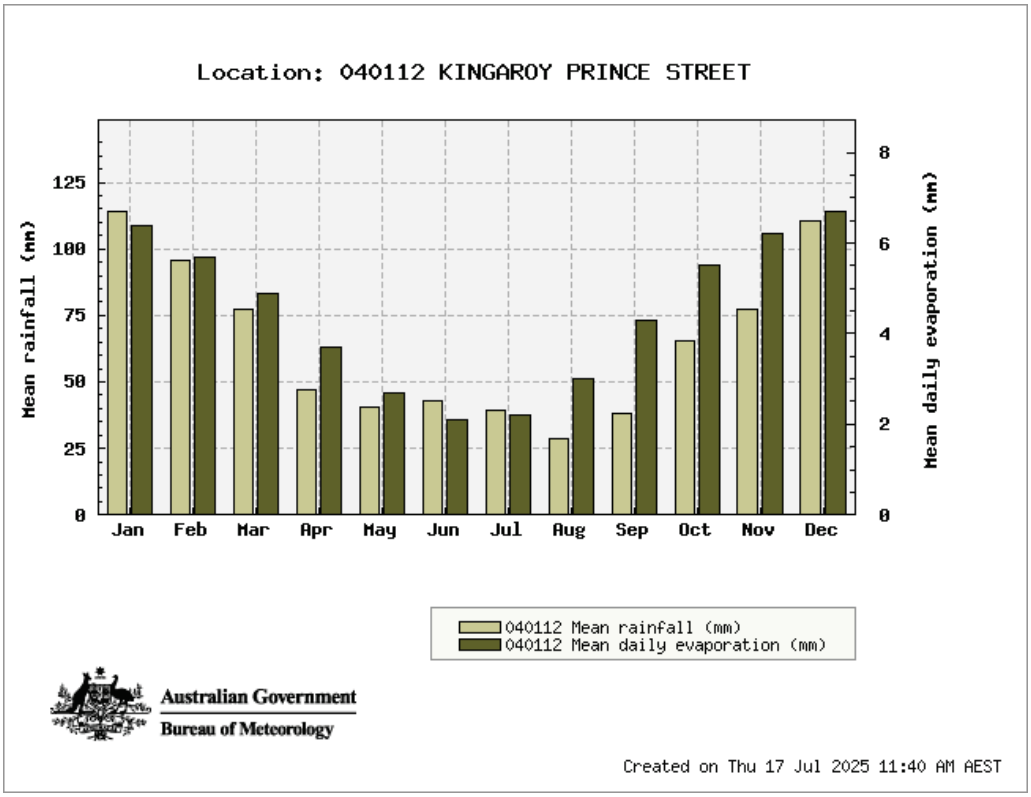



FIGURE 5 MEAN DAILY EVAPORATION (MM) AND MEAN MONTHLY RAINFALL (STATION 040922) (BOM, 2025)

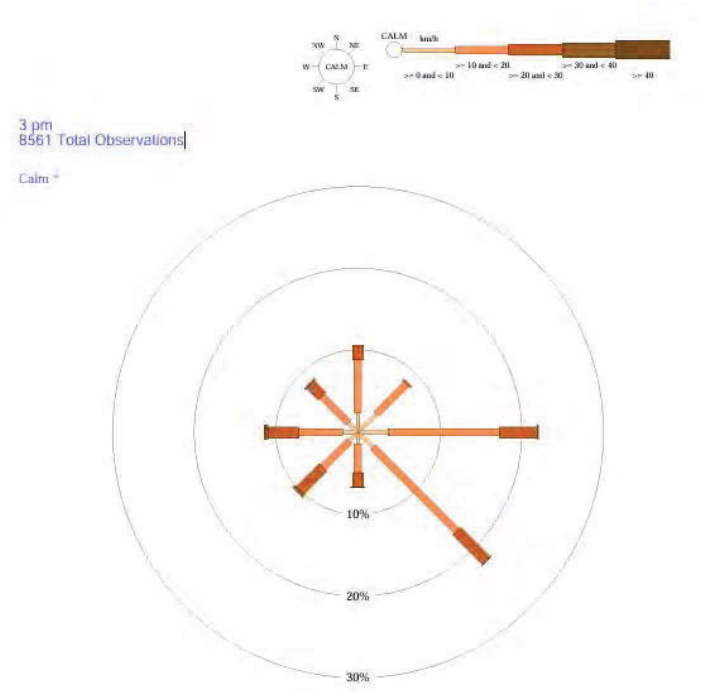



FIGURE 6 ROSE OF WIND DIRECTION VERSUS WIND SPEED IN KM/H (19 JAN 2001 TO 10 AUG 2024) (STATION 040112) (BOM, 2025)

### 4.3.4. CONTINENTAL EFFECTS OF SEASONAL VARIATION

While climate averages provide an overview of the weather characteristics contributing to identified fire seasons, and annual trends that influence the general expected severity of a given season, nationwide weather patterns effect the extreme fire weather conditions experienced from time to time in different parts of the country.

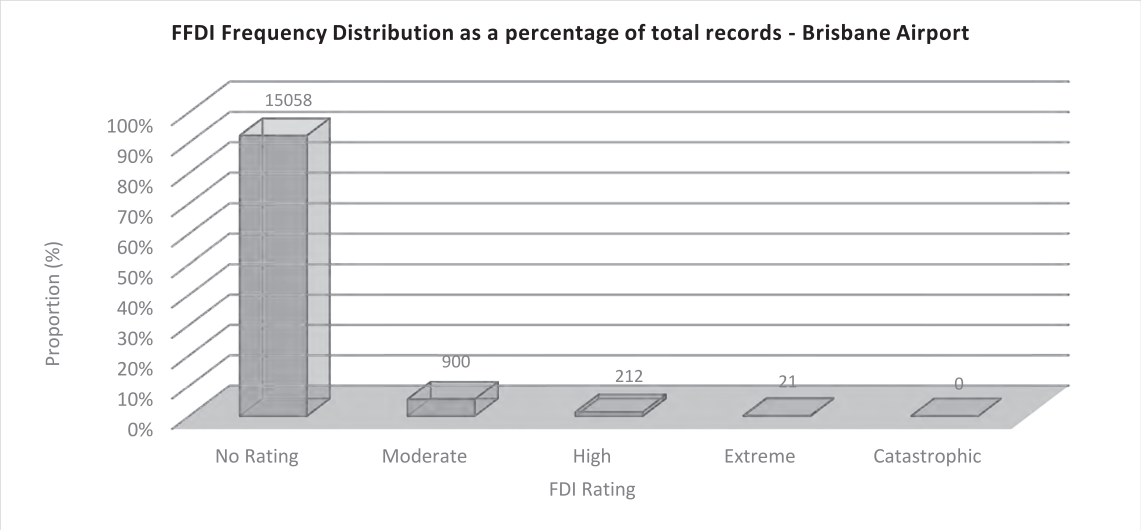
While the conditions generally experienced in the region can be described as temperate, with warm summers and cool winters, widespread national weather patterns such as prolonged drought or persistent rainfall deficits, particularly in the interior, can influence the weather in all regions, resulting in the occurrence of extreme conditions that can (and have) resulted in Extreme and Catastrophic fire weather conditions, such as those experienced in the summer of 2018 - 19 (Mills, 2019). Mills paper discusses research into fire weather trends in south east and coastal Queensland in response to the 2018-19 fire season, acknowledging a recent trend in increasing extreme conditions over the last 20 years. This intimates that bushfire management planning should be conservative to minimise underestimation of risk associated with development.

### 4.3.5. FIRE DANGER INDEX

The Fire Danger Index (FDI) was developed to provide an indicator to fire managers of the probability of being able to contain and extinguish a fire once it started in a forest environment. FDI is calculated using inputs including recent rainfall, soil dryness, temperature, humidity and windspeed. The higher the FDI, the lower the probability of containment or extinguishment within 24 hours of the fire starting.

AS3959-2018 identifies an applicable FDI of 40 for Queensland, which falls into the classification of High fire danger under the new Australian Fire Danger Rating System (AFDRS), effective from September 2022. Fire hazard modelling in Queensland by CSIRO (Leonard et al., 2014) has mapped FDI across the state. FDI varies across the South Burnett region, from 50 in the east to 64 in the west. An FDI of 55 applies to the subject site in Wondai.

It is noted that tropical climates exhibit different fire behaviour and fire weather characteristics to southern parts of Australia, with less frequent occurrences of extreme fire weather conditions. Subsequently, a review of historical fire weather data (Lucas, 2009) shows that while High (FDI 24 < 49) and Extreme (FDI 50 < 99) fire weather does occur in the south east Queensland region, these are infrequent and not prolonged occurrences (Graph 1 shows frequency distribution of FFDI over 43 years of records, according to the AFDRS for Brisbane Airport). There are no records of fire weather reaching the classification of 'Catastrophic' or an FDI exceeding 100, which is experienced more frequently in southern parts of Australia and is correlated with the occurrence of significant bushfire events in the southern states. This weather record does not include the summer of 2019/20, where extreme fire weather conditions persisted and drove significant bushfire behaviour across the south east into the subtropical and lower tropical zones of the state.




GRAPH 1 FFDI FREQUENCY DISTRIBUTION

## 4.4. VEGETATION AND BUSHFIRE FUELS

Vegetation structure and arrangement are significant drivers of fire behaviour. Fuel hazard is described as the combined effect of fine surface fuels, elevated fuels and bark hazard in the ignition and propagation of fire. Traditional methods of fuel assessment require the individual assessment of all three fuel types to determine the Potential Fuel Load (PFL), described in tonnes per hectare (tph). This fuel weight can then be used to determine the potential fireline intensity (PFI) in terms of kW/m.

The methodology endorsed by the Queensland Government is described in the technical reference guide ***Bushfire Resilient Communities*** (QFES, 2019). This methodology builds on the state wide bushfire hazard modelling method published by CSIRO in 2014 (Leonard et al., 2014), identifying potential total bushfire fuel loads for Queensland Herbarium regional ecosystem vegetation classifications and aggregating these into Vegetation Hazard Classes (VHC) (which also includes the canopy fuel weight), and was subsequently refined with detailed vegetation bushfire fuel data in 2017 (Newnham et al., 2017).

Vegetation hazard class mapping considers horizontal connectivity of bushfire fuels; VHCs with a continuous fuel load generally support continuous flame spread, whereas VHCs with discontinuous fuels may interrupt or retard the progress of a fire front. In terms of crown fire development, vegetation communities with little to no elevated fuels connecting surface fuels to bark and canopy fuels will limit the potential for crown fire development, whereas significant volumes of near surface fuels (grasses >1m high) and elevated fuels promote flame advancement into the canopy. Small patches of higher fuel load VHCs within a larger landscape of lower fuel load VHCs (up to 1ha), will locally increase fire intensity and rate of spread, however, will not significantly influence the overall bushfire hazard in the wider landscape.

Broad Vegetation Groups (BVG) and Vegetation Hazard Classes (VHC) within or adjacent to the subject site are listed in Table 1. The potential fireline intensity is calculated (assuming flat ground) to provide context to the influence of fuel load on potential intensity.

**TABLE 1 BVG AND VHC ASSOCIATED WITH THE SUBJECT SITE AND ITS SURROUNDING AREA**

| Broad Vegetation Group | BVG Description | Vegetation Hazard Class | Class Description | Total PFL (tph) | Potential Fireline Intensity (kW/m) |
|---|---|---|---|---|---|
| 9h | Moist to dry eucalypt open forests to woodlands usually on coastal lowlands and ranges | 9.2 | Moist to dry eucalypt woodland on coastal lowlands and ranges | 17.2 | 9,363 |
| 10b | Corymbia citriodora (spotted gum) dominated open forests to woodlands on undulating to hilly terrain | 10.1 | Spotted gum dominated open forests | 20.8 | 14,667 |
| 13d | Dry to moist eucalypt woodlands and open forests, mainly on undulating to hilly terrain of mainly metamorphic and acid igneous rocks | 13.2 | Dry to moist eucalypt woodlands on undulating metamorphics and granite | 14.4 | 6,734 |
| 16c | Eucalyptus spp. dominated open forest and woodlands drainage lines and alluvial plains | 16.2 | Eucalyptus dominated woodland on drainage lines and alluvial plains | 11.6 | 4,704 |
| - | - | 40.4 | Low to moderate tree cover in built-up areas | 8 | 822 |
| - | - | 41.4 | Low grass or tree cover in built-up areas | 3 | 329 |
| - | - | 43.6 | Water bodies or very low vegetation cover | 0 | 0 |

| Very high (potential intensity) 40,000+kW/m | High (potential intensity) 20,000 – 40,000kW/m | 3. Medium (potential intensity) 4,000 – 20,000kW/m | 4. Low Hazard < 4,000 kW/m |
|---|---|---|---|

*Potential Fireline Intensity is calculated using the methodology in *Bushfire Resilient Communities* (QFES, 2019)

### 4.4.1. BUSHFIRE FUEL HAZARD

A site evaluation of bushfire fuel hazard was undertaken across the subject site. This was conducted to validate the vegetation mapping and modelled PFL across the site. The results of field assessment are summarised in Table 2.

Vegetation hazard class mapping has been evaluated against aerial photography and considered in the context of the field assessment results. Generally, the vegetation within 100m of a site is considered for vegetation hazard assessment.

VHC mapping has been edited to more accurately reflect vegetation structure and extent in the landscape surrounding the subject area. It is noted that the available aerial photography was captured in May 2025, and following the inspection of the site and its surrounding area is regarded as accurately representing the current land use and condition of the area. Vegetation hazard class mapping is shown in the Vegetation and Bushfire Fuels map in Appendix A, depicting the post development landscape, as clearing and maintenance of vegetation will occur across the subject site to enable construction and ongoing use.

While there are small areas of varying vegetation cover dispersed across the landscape, many are limited to 1 hectare in size or lower, or are formed as narrow corridors less than 100m in width within another vegetation type. These small patches and corridors do not materially influence the likely bushfire behaviour assocaited with the dominant vegetation type, and have therefore not been mapped individually in the vegetation hazard class mapping, but have been aggregated with the surrounding dominant vegetation type as appropriate.

Additionally, small patches of vegetation less than 1ha and narrow corridors of vegetation less than 75m in width surrounded by area of no or discontinuous bushfire fuels have been excluded in their entirety as per the methodology specified in *Leonard, J., Opie, K. (2017) Estimating the potential bushfire hazard of vegetation patches and corridors. CSIRO, Australia*.

**TABLE 2 FUEL HAZARD ASSESSMENT SUMMARY**

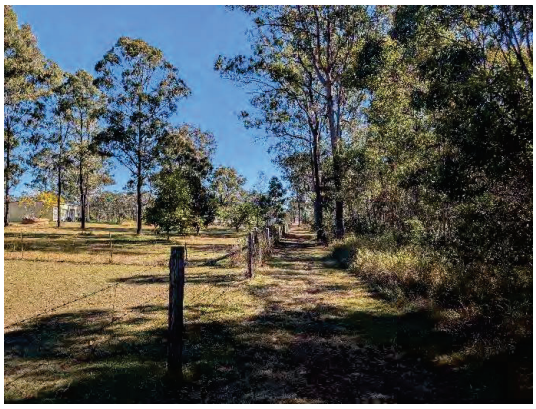
| Mapped VHC (PFL) | Observations / Discussion |
|---|---|
| **9.2**<br>**(17.2 tph)** | This vegetation type is identified as being dominant across the subject site in its pre-developed state, with an area identified for retention in the southern section of the site. Additional overstory areas are likely to be retained within the development area, however, management of understory fuels will result in a significantly different bushfire hazard categorisation.<br>Adjacent to the site, separated by the Lysdale road reserve, there is an additional area of VHC9.2 vegetation that extends to the north, providing potential connectivity to native vegetation to the north and north east.<br>There are additional patches of 9.2 vegetation present in the landscape outside of the 100m assessment area. |



**PLATE 1 – VIEW WEST ALONG THE CURRENT SITE ACCESS, WITH SURROUNDING WOODLAND VEGETATION**



**PLATE 2 - VIEW NORTH INTO TYPICAL VHC9.2 WOODLAND VEGETATION STRUCTURE FOR THE SITE**

| Mapped VHC (PFL) | Observations / Discussion |
|---|---|
|  <br>PLATE 3 – VIEW EAST INTO WOODLAND VEGETATION IN THE SOUTHERN SECTION OF THE SITE WITH GRASSY GROUNDCOVER |  <br>PLATE 4 - VIEW WEST ALONG THE SOUTHERN BOUNDARY OF THE SUBJECT SITE, WITH WELL DEFINED FIRE BREAKS |
|  <br>PLATE 5 – VIEW NORTH INTO THE ADJACENT LAND PARCEL, WITH REDUCED SURFACE AND NEAR SURFACE FUELS |  <br>PLATE 6 - VIEW OF REDUCED SURFACE AND NEAR SURFACE FUELS PRESENT IN THE NORTHERN AREAS OF THE SUBJECT SITE |
| **10.1**<br>**(20.8 tph)** | This vegetation type does not occur within the 100m assessment area, and is not contiguous with vegetation within the 100m assessment area.<br>The nearest patch of this vegetation type is located 230m to the south west of the subject site, and is entirely separated from other bushfire prone vegetation, with residential areas with low bushfire fuels encompassing it. |
| **13.2**<br>**(14.4 tph)** | This vegetation type does not occur within the 100m assessment area, and is not contiguous with vegetation within the 100m assessment area.<br>The nearest patch of this vegetation type is located 1350m to the north west of the subject site, and is separated by rural agricultural land with low bushfire fuel presence. |
| **16.2**<br>**(11.6 tph)** | This vegetation type does not occur within the 100m assessment area, and is not contiguous with vegetation within the 100m assessment area.<br>The nearest patch of this vegetation type is located 2100m to the north of the subject site. This patch is contiguous with 9.2 hazard class woodland vegetation that extends within the 100m assessment area, however, due to the small, peripheral nature of this patch it will not alter bushfire behaviour in regard to the subject site. |
| **40.4**<br>**(5.0 tph)** | This vegetation classification is associated with the rural residential parcel to the south of the subject site only, in its eastern section where the canopy has been fully retained, but has also been subject to some additional management. |

| Mapped VHC (PFL) | Observations / Discussion |
|---|---|
| | It is noted that in terms of weight of bushfire fuels present there is negligible difference between this fuel hazard classification and that of the surrounding natural vegetation. |



PLATE 7 - VIEW EAST INTO THE RURAL RESIDENTIAL PROPERTY ADJACENT TO THE SOUTHERN SECTION OF THE SITE



PLATE 8 – VIEW SOUTH INTO THE RURAL RESIDENTIAL PROPERTY ADJACENT TO THE SOUTHERN SECTION OF THE SITE



PLATE 9 – VIEW EAST INTO RURAL AGRICULTURAL PARCEL WITH LOW BUSHFIRE FUELS



PLATE 10 – VIEW EAST INTO THE RURAL RESIDENTIAL PROPERTY ADJACENT TO THE NORTHERN SECTION OF THE SITE



PLATE 11 – VIEW SOUTH ALONG THE HINES ROAD RESERVE



PLATE 12 – VIEW EAST ALONG THE LYSDALE ROAD RESERVE

| Mapped VHC (PFL) | Observations / Discussion |
|---|---|
| **41.4 (3.0 tph)** | This vegetation hazard classification covers the higher density residential development area of the Wondai township extending from 1320m to the south east of the subject site. This area has very low bushfire fuels, and acts to further separate the subject site from the state forest areas within the local landscape. |
| **43.6 (0 tph)** | This VHC applies to waterbodies and other surfaces or features that are devoid of vegetation. It is noted that during drier times these dams may be dry, however under these circumstances it is unlikely they will exhibit significant grass growth due to the absence of soil moisture in severe bushfire weather conditions. |



PLATE 13 - VIEW OF THE WESTERN (PERMANENT) DAM PRESENT ON THE SUBJECT SITE



PLATE 14 – VIEW OF THE EASTERN (SEASONAL) DAM PRESENT ON THE SUBJECT SITE

## 4.5. FIRE HISTORY AND IGNITION SOURCES

QPWS fire history mapping is available through the Queensland Spatial Catalogue. This data includes records from 1984 in the local area, and from 1930 across Qld, and shows that the subject site has not been subject to an uncontrolled fire or unplanned burn in this time. This dataset generally focuses on fires within the public land estate, or fires that originate within the public land estate, and therefore does not provide a definitive fire history record for this property, however due to the proximity of the Wondai State Forest, McEuen State Forest, and Cherbourg National Park to the east and south of the subject site, and the degree of management conducted in these areas by QPWS, there is high potential that relevant bushfire events have been recorded. The QPWS fire history shows a significant fire history in the local area, with 35 fire events in total within a 5km radius of the site since 2003. The majority of these fire events (23) have been planned burns. No fire events have impacted the subject site, with all fires being contained to the state forest area or directly adjoining areas of unmodified woodland, and all located to the east of the Bunya Highway. The closest planned burn area was 1.8km to the south east of the subject site, and the closest unplanned bushfire was 2.5km to the east of the subject site (with these fire extents being contained at their interface with either agricultural land or the Wondai urban area).

The state of Queensland maintains a dataset of fire scar areas identified from satellite imagery analysis from 1987 to present, mapped on a 250m grid, consistent with the resolution of the satellite imagery used. Fire scars are automatically detected and mapped using dense time series of Landsat imagery, and typically identify over 80% of fire scars that have been occurred, but also have an up to 30% false detection rate – as such the data should be corroborated with land use and historic information. The fire scar dataset shows the subject site has not been subject to burning within the 48-year observation period. A number of very small burn scars are identified in proximity adjacent to the subject site, however these are likely to be related to land use changes or spot burns by land owners, and are not indicative of bushfire events. Larger burn areas in the local landscape are all associated with the areas identified in the QPWS dataset.

Bushfire in the area is typically associated with either natural ignitions during spring and early summer, or with planned burns for bushfire fuel management. It is acknowledged that some significant fire events in the regional context may

have been associated with negligent or malicious ignition. Other potential sources of ignition are likely to be associated with operational activities involving earthworks machinery, construction activities (including hot work) and vegetation management activities (slashing etc).

Discussion with the landowner identified that no fire events had affected the subject site during the 13 years of their ownership, and did not identify any bushfire events occurring in the surrounding area. No further sources of fire history were queried, with the QPWS dataset providing a comprehensive overview for the local area.

## 4.6. BUSHFIRE HAZARD

Bushfire prone land is defined as land that could support a significant bushfire, or be subject to significant bushfire attack (Leonard et al., 2014). Bushfire attack manifests as ember attack, radiant heat impact and/or direct flame attack.

The degree of severity of bushfire behaviour or bushfire attack is described in terms of Potential Fire-line Intensity. Potential Fire-line Intensity is calculated using inputs describing vegetation fuel loads (tonnes per hectare [tph]), slope (degrees) and FFDI as a descriptor of likely weather conditions thus:

$$FI = 0.62\ W^2\ FFDI\ \exp\ (0.069\theta) \qquad \text{(Equation 1)}$$

Where:

FI = Fireline Intensity (kW/m)

W = Potential Fuel Load (tph)

$\theta$ = Maximum Landscape Slope (degrees)

FFDI = Fire Weather Severity

The bushfire hazard class is derived by classifying the resultant Potential Fire Line Intensity output from the hazard modelling process (Table 3).

**TABLE 3 BUSHFIRE HAZARD CLASSES CORRESPONDING TO POTENTIAL FIRE-LINE INTENSITY (FROM LEONARD ET.AL. 2014).**

| ***Potential Bushfire Intensity Class*** | ***Potential Fire-line Intensity*** |
|---|---|
| 1. Very high (potential intensity) | 40,000+kW/m |
| 2. High (potential intensity) | 20,000 – 40,000kW/m |
| 3. Medium (potential intensity) | 4,000 – 20,000kW/m |
| 4. Low Hazard | < 4,000 kW/m |

Bushfire hazard classification or threat level across the property and within the surrounding landscape (in terms of potential bushfire intensity) is Medium to High (see Modelled Bushfire Hazard map in Appendix A). The subject site is currently considered bushfire prone, but the proposed development will result in the developed areas (excluding the retained vegetation in Lot 29) being regarded as Low Hazard. Developed lots will be within the 100m Potential Impact buffer of adjacent medium bushfire hazard land (north of Lysdale Road). Land parcels in the surrounding area do feature areas of Medium and High bushfire hazard, however the proposed new lots are not otherwise within the 100m potential impact buffer of these areas.

The median potential fireline intensity associated with the mapped Medium Bushfire Hazard vegetation associated with the site is 10,032 kW/m, which is toward the lower end of the range of values classified as Medium bushfire hazard (4000 kW/m to 20,000 kW/m).

### 4.6.1. ASSET PROTECTION ZONE (APZ) CALCULATION

State planning policy guidance material and the South Burnett Regional Council Planning Scheme require an achievement of a maximum radiant heat profile of 29kW/m$^2$ at the development footprint extent.

To demonstrate the proposed lots achieve the radiant heat flux objective of the planning scheme, the Asset Protection Zone calculator has been used to establish the potential radiant heat flux impact on future residential properties from the identified medium bushfire hazard vegetation. This Asset Protection Zone extent has been indicated on the Vegetation and Bushfire Fuels map in Appendix A to show that the properties are large enough to accommodate a building envelope that achieves the radiant heat flux objective of the planning scheme.

The maximum heat flux exposure (which defines the minimum asset protection zone distance) can be calculated using the *SPP-Bushfire-APZ-Width-Calculator.xlsm* produced by QFES. The QFES APZ calculator is issued with the following disclaimer by QFES:

*DISCLAIMER: Fire-line intensity and radiant heat calculations where effective slope exceeds 20 degrees (downslope) or 15 degrees (upslope) may be unreliable. In these locations, specialist assessment is warranted.*

These calculations identify the minimum acceptable asset protection zone for each identified vegetation class, they do not stipulate the BAL construction requirements of AS3959.

TABLE 4 ASSET PROTECTION ZONE CALCULATOR – VHC 9.2 VEGETATION

| Bushfire Asset Protection Zone Width Calculator | | | |
|---|---|---|---|
| **VARIABLE DESCRIPTION** | **VARIABLE** | **UNITS** | **VALUE** |
| ***Input Values*** | | | |
| **FIRE WEATHER SEVERITY** | **FDI** | | 55.00 |
| **VEGETATION HAZARD CLASS** | **VHC** | - | 9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges |
| **REMNANT STATUS** | **-** | - | Remnant |
| **SLOPE TYPE (UPSLOPE OR DOWNSLOPE)** | **ST** | - | Upslope |
| **EFFECTIVE SLOPE UNDER THE HAZARDOUS VEGETATION** | **eSlope** | degrees | 2.00 |
| **SLOPE BETWEEN SITE AND HAZARDOUS VEGETATION** | **θ** | degrees | 2.00 |
| **DISTANCE OF THE SITE FROM HAZARDOUS VEGETATION** | **d** | m | 15.5 |
| ***Output Values*** | | | |
| **SURFACE FUEL LOAD** | **-** | t/ha | 11.40 |
| **NEAR SURFACE FUEL LOAD** | **-** | t/ha | 3.50 |
| **BARK FUEL LOAD** | **-** | t/ha | 1.30 |
| **ELEVATED FUEL LOAD** | **-** | t/ha | 1.00 |
| **TOTAL OVERALL FUEL LOAD** | **W** | t/ha | 17.20 |
| **TOTAL SURFACE FUEL LOAD** | **w** | t/ha | 14.90 |
| **POTENTIAL FIRE LINE INTENSITY** | **I** | kW/m | 10032 |
| **RADIANT HEAT FLUX** | **q** | $kW/m^2$ | 28.47 |
| **BUSHFIRE ATTACK LEVEL (AS 3959-2018)** | **BAL** | - | BAL 29 |

### 4.6.2. BUSHFIRE SCENARIO

The site is located at the interface of the rural residential area of Wondai with the broader rural agricultural landscape to the west of the Wondai township. The historical record confirms the occurrence of bushfire in the local landscape, most frequently associated with planned burns conducted by QPWS within the state forest areas to the east of the Wondai township. Historically burns have been limited to the east side of the Bunya Highway, have been constrained to state forest areas and immediately adjacent woodland vegetation, and have not extended into the agricultural or urban landscape. Increased and ongoing development in the Wondai area is likely to further reduce the likelihood of bushfire spreading through the local area, with the increased focus on active risk mitigation of the overall landscape through the implementation of fire breaks and bushfire fuel minimisation.

The development is considered to be Low Hazard across the majority of its area (due to the removal of bushfire fuels in the course of site development), but contains and area of Medium Hazard vegetation across its southern section. The closest bushfire prone vegetation is otherwise located to the north of the subject site across Lysdale road, which following development will have a greater than 200m separation from the retained vegetation on the subject site. All other potentially hazardous vegetation is separated from the subject site by the by the surrounding rural residential and agricultural land parcels. Half of the proposed new land parcels will nevertheless be within the 100m potential

impact buffer in which bushfire effects such as smoke, ember attack and radiant heat impacts may occur (typically across the western half of the development).

The bushfire season is considered to peak during Spring and early Summer, when mean daily evaporation increases and mean 3pm humidity is at its lowest for the year. Wind direction during early spring is highly variable, with no dominant prevailing wind. During late spring and early summer this variable wind shifts to a prevailing easterly wind, though there can be some variance ongoing. This will be reflected in potential bushfire behaviour, with the variable winds of early spring resulting in no definitive direction in which a bushfire front will be driven, and the prevailing wind in late spring and early summer directing bushfire to the west. As the subject site is surrounded by flat ground, and state forests are based on areas with variable slope, wind direction will be the primary factor in directing bushfire spread.

Due to the presence of the developed residential areas of Wondai and road reserves (such as the Bunya Highway) acting as de facto fire breaks, bushfire attack from south or east is less likely due to lack of contiguous bushland vegetation. The same holds true to the west, north west, and south west due to the presence of highly managed agricultural land.

As such, the most likely bushfire scenario involves bushfire attack from the north. In this scenario bushfire would have to spread from the state forest areas east of Wondai into contiguous woodland vegetation on private land, and spread across the barriers of sparser open woodland on agricultural land and the Bunya Highway into vegetation to the north of the subject site. This would result in a potential bushfire run of 1.2km before reaching the Lysdale Road reserve. This situation would be most likely to occur in early spring, coinciding with a northerly or north easterly wind. Such winds are typically not high velocity, and with the lack of slope would result in a moderately spreading fire front that meets the Lysdale Road reserve. Notwithstanding, ember attack may impact new land parcels within the 100m impact buffer of modelled bushfire prone land.

It is noted that this scenario has not occurred according to known fire history, and is considered unlikely with the barriers to bushfire present in the landscape.

In the context of likely ignition sources, accidental ignitions are most likely associated with roadways, recreational activities in the national park area, or rural activities that entail ‘hot work’ or use of ground engaging implements. In the context of the site there is a greater likelihood that fires from natural or accidental ignition within the national park area (or a planned burn that gets out of hand) will result in a bushfire front, than accidental ignition within the local area.

## 5. RISK ASSESSMENT

Risk Assessment requires identification of hazard, determination of likelihood, vulnerability and consequence. A matrix is used to derive risk, based on these factors. The process used in this risk assessment is documented in the **Queensland Emergency Risk Management Framework (QERMF) Risk Assessment Process Handbook** (QFES, 2018). The use of a risk matrix also facilitates the evaluation of management measures to demonstrate risk reduction.

The risk matrix implemented in the **QERMF** rates risk from Very Low (0) to Catastrophic (13). The risk assessment for proposed lots is **VERY LOW (3)** prior to control measures, and **VERY LOW (2)** following control measures.

**HAZARD**

Hazard is the identification of potential, regardless of any other factors. The preliminary hazard assessment undertaken as part of this Bushfire Hazard Study has identified **Low** bushfire hazard across the majority of the site, with some **Medium** bushfire hazard in the southern section of the site. This are of Medium bushfire hazard is not contiguous with any adjacent bushfire prone vegetation, and is separated by the area of the site to be developed, and as such is not regarded as substantively increasing the hazard of the site.

**LIKELIHOOD**

Likelihood is a description of the probability of an event occurring. It is commonly presented in terms of Annual Exceedance Probability (AEP), based on the number of events that have occurred over a period of time. In order to establish likelihood for identified at risk assets, fire history information is necessary. Fire history indicates no bushfire occurrence within or adjacent to the subject site from 2003 (the earliest record in the QPWS dataset). However, due to the limited timeframe of the dataset, and presence of bushfire in the wider landscape, the overall likelihood is considered to be **Unlikely**.

**VULNERABILITY**

Vulnerability is an assessment of the resilience of a community or asset to the identified hazard. It considers service interruption and reconstruction capacity and cost, options for evacuation, topographical features as barriers to addressing the hazard, occupant capacity for preparedness and response, and emergency services capacity.

The development is provided with access to the existing road network with no bottle neck points or limitation for access, via a route that is not adjacent to bushfire prone vegetation. The development will be provided with reticulated water, and meet the requirements for fire hydrant provision. Electrical distribution to the new properties will be underground, minimising the vulnerability of overhead supply infrastructure. New dwellings constructed within the 100m Impact Buffer will be required to comply with the requirements of AS3959 (Construction in bushfire prone areas), providing resilience to the likely modes of bushfire attack. Existing roads act as functional firebreaks, and provide a number of directions for egress into low hazard areas. The McEuen Rural Fire Service, whilst being a volunteer brigade, is active in the community and bushfire response in cooperation with QPWS provides a high likelihood of rapid and pre-emptive response to bushfire events in the Wondai area.

The property is considered to exhibit **Low** vulnerability to the impacts of bushfire, as infrastructure relating to services is not located in proximity to the bushfire threat and large lots provides appropriate protection of future residential buildings from the direct impacts of bushfire.

**CONSEQUENCE**

The consequence is a description and measure of the impact of a potential event on people, finance and economy, community, public administration and the environment. The degree of interruption of daily routines, loss of life or property, cost of recovery and resources required for this, continuation of services (such as electricity and waste management), and damage to environmental values is evaluated on a scale of severity. Mitigation measures should be aimed at reducing this consequence.

The Consequence of bushfire impact at the site, based on the most likely scenario is considered to be **Insignificant**. While some inconvenience is likely to be experienced in terms of smoke and burnt vegetation, loss of visual amenity in the short term, the bushfire scenario does not indicate a likelihood of critical injuries, significant interruption to services or social connectedness, or permanent environmental harm.

## 5.1. MITIGATION MEASURES

The site is located within the reticulated water network and new roads will be required to meet the QFES standards detailed in ‘Fire Hydrant and Vehicle Access for Residential, Commercial, and Industrial Lots’ (QFES, 2025).

All future residential construction will be required to comply with AS3959 (Construction in bushfire prone areas) if within 100m of classified vegetation, and thus provide suitable resilience to the site-specific hazard.

All new lots created are of suitable size and configuration to ensure a maximum 29kW/$m^2$ or less heat flux impact to any residential structure. It is recommended that landscaping and plant selection be undertaken to ensure the Low Hazard nature of the rural residential lots is maintained ongoing.

No further specific additional mitigation measures are required to achieve further risk reduction for the reconfiguration as proposed.

**TABLE 5 RISK ASSESSMENT**

| | Risk Assessment Prior to Controls | | | | | | Risk Assessment after Implementation of Measures | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Development** | **Hazard** | **Likelihood** | **Vulnerability** | **Consequence** | **Risk** | **Mitigation Measures** | **Hazard** | **Likelihood** | **Vulnerability** | **Consequence** | **Residual Risk** |
| Residential Subdivision | Low | Unlikely | Low | Insignificant | Very Low (3) | All new dwellings to be able to achieve the 29kW/m$^2$ radiant heat flux objective.<br><br>All landscaping and planting to be undertaken with regard to low hazard planting choices.<br><br>All future buildings subject to National Construction Code compliance and AS3959. | Low | Unlikely | Very Low | Insignificant | Very Low (2) |

# 6. BUSHFIRE HAZARD OVERLAY CODE

South Burnett Regional Council Planning Scheme Overlay Code 7.2.1 defines the performance criteria for developments relating to bushfire hazard mitigation, and identifies acceptable outcomes. These performance criteria and acceptable outcomes are described in Table 6. Management actions are described to achieve the performance criteria.

**TABLE 6 SOUTH BURNETT REGIONAL COUNCIL PLANNING SCHEME OVERLAY CODE 7.2.1 PERFORMANCE CRITERIA**

| Performance outcomes | Acceptable outcomes | Response/Resolution |
|---|---|---|
| **Section A** | | |
| **Reconfiguring a lot (RaL) – where creating any number of lots of more than 2,000 square metres:** | | |
| PO1<br>The subdivision layout:<br>enables future buildings to be located away from slopes and land forms that expose people or property to an intolerable risk to life or property; and facilitates emergency access and operational space for firefighters in a reduced fuel area between future buildings and structures and hazardous vegetation, that reduce risk to an acceptable or tolerable level. | AO1.1<br>A development footprint plan is identified for each lot that avoids ridgelines, saddles and crests where slopes exceed 28 per cent.<br>AO1.2<br>A development footprint plan is identified for each lot that is separated from the closest edge to the adjacent mapped medium, high or very high potential bushfire intensity area by a distance that achieves a radiant heat flux level of 29 kW/$m^2$ or less at all development footprint plan boundaries. | The proposed development occurs on slope ranging from 1 to 4 degrees only, with no ridgelines, saddles, or crests present.<br><br>All new lots are of suitable size and configuration to achieve a radiant heat flux level of 29kW/$m^2$ or less for development footprint plan boundaries flexibility within each parcel. |
| PO2<br>The subdivision layout enables:<br>future buildings to be located as close as possible to property entrances to facilitate safe evacuation during a bushfire event; and<br>future site access to be located and designed to allow safe evacuation of the site by occupants and maintain access by emergency services under critical event conditions. | AO2<br>A development footprint plan is identified for each lot that:<br>• is located within 60 metres of the street frontage; and<br>• sited to enable a route between the development footprint plan and the street frontage with a gradient that does not exceed of 12.5 per cent. | All proposed lots are able to facilitate the location of development footprint plans within 60m of the planned street frontage – pending confirmation in final design.<br><br>Slope across the site is from 1 to 4 degrees only, and as such all access routes will be at a gradient below 12.5%. |

| Performance outcomes | Acceptable outcomes | Response/Resolution |
|---|---|---|
| **Section C** | | |
| **Reconfiguring a lot (RaL) – additional provisions where creating more than 20 lots:** | | |
| PO4<br>The subdivision layout is designed to minimise the length of the development perimeter and number of lots exposed to hazardous vegetation. | No acceptable outcome is prescribed. | The subdivision is designed in a manner as to minimise the length of the development perimeter, with site division occurring to create a cohesive development, with no substantiative vegetated corridors or finger like corridors occurring between lots. |
| PO5<br>The subdivision layout provides for adequate access and egress and safe evacuation routes, to achieve an acceptable or tolerable risk to people. | AO5.1<br>The subdivision layout:<br>• avoids the creation of bottle-neck points in the movement network within the development (for example, avoids hourglass patterns); and<br>• ensures the road network has sufficient capacity for the evacuating population.<br>AO5.2<br>• The subdivision layout ensures evacuation routes:<br>• direct occupants away from rather than towards or through areas with a greater potential bushfire intensity; and<br>• minimise the length of route through bushfire prone areas. | The internal roads in the proposed subdivision design are suitable to achieve the adequate access and safe evacuation routes:<br>• Roads will be constructed to meet access requirements specified in 'Fire Hydrant and Vehicle Access Guidelines for Residential, Commercial and Industrial Lots' QPWS 2025.<br>• The design does not create bottle-neck points in the movement network.<br>• The design has sufficient capacity for the evacuating population.<br>• Directs evacuation away from the direction of bushfire attack determined as most likely in section 4.6.2.<br>• Is exposed to a maximum heat flux of 7.10 kW/m$^2$ only at the edge of the closest road reserve point if spot fire were to occur in the retained medium hazard vegetation on the subject site.<br>• Due to the location of Lysdale Road to the north and surrounding Low Hazard vegetation, a perimeter road is not recommended as necessary, as it will not reduce hazard exposure to the proposed new lots or residents during evacuation. |

| Performance outcomes | Acceptable outcomes | Response/Resolution |
|---|---|---|
| PO6<br>The subdivision layout provides adequate buffers between hazardous vegetation and development.<br>Note – An applicant may seek to undertake a site-level verification of the location and nature of hazardous vegetation and resulting potential bushfire intensity levels, for example where changes in foliage have occurred (e.g. as a consequence of adjoining permanent urban development) or where an applicant seeks to verify the regional ecosystem map inputs. This verification should form part of a bushfire hazard assessment, in accordance with the methodology in the QFES Bushfire resilient communities document. The outcomes of this assessment can demonstrate how an alternate solution to the acceptable outcome can deliver an acceptable or tolerable level of risk. | AO6.1<br>The subdivision layout results in an asset protection zone being located to create a separation area from adjacent mapped medium, high or very high potential bushfire intensity areas.<br>AO6.2<br>The asset protection zone is comprised of:<br>• parks and open spaces; and/or<br>• lots greater than 2000 square metres; and/or<br>• public roads (termed perimeter roads).<br>AO6.3<br>Where the asset protection zone includes lots greater than 2000 square metres a development footprint plan is identified for each lot that is located in accordance with AO1.2. | The proposed development will result in Low Hazard vegetation being present within the created new lots.<br>Due to all lots being greater than 2000m$^2$ this low hazard area creates a suitable separation distance between all potential residential development envelopes and adjacent mapped Medium Hazard vegetation.<br>All proposed new lots are able to achieve below 29kW/m$^2$ or less radiant heat flux exposure. With the size of the proposed new lots, all structures can conservatively achieve a minimum 25m separation distance, which would equate to a 16.63kW/m$^2$ radiant heat flux exposure.<br>Development footprint plans are to be identified in the final design, but these are able to located flexibly within each proposed new lot while achieving separation requirements. |
| PO7<br>Parks or open space provided as part of the asset protection zone do not create additional bushfire prone areas. | AO7<br>Where the asset protection zone includes parks or open spaces, they:<br>• comprise only low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, cultivated gardens and nature strips; or<br>• are designed to ensure a potential available fuel load is maintained at less than eight tonnes/hectare in aggregate and with a fuel structure that remains discontinuous.<br>• Note–Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack, for example short-cropped grass to a nominal height of 10 centimetres. | Not applicable to this development. Parks and Open Spaces are not provided in to this large lot development. |

| Performance outcomes | Acceptable outcomes | Response/Resolution |
|---|---|---|
| PO8<br>Perimeter roads are accessible for fire- fighting vehicles, to facilitate emergency access and operational space for fire- fighting, maintenance works and hazard reduction activities. | AO8.1<br>Where the asset protection zone includes a perimeter road it:<br>• has a two-lane sealed carriageway clear of hazardous vegetation; and<br>• is connected to the wider public road network at both ends and at intervals of no more than 200 metres; and<br>• does not include design elements that may impede access for fire-fighting and maintenance for fire-fighting purposes (for example traffic calming involving chicanes).<br>AO8.2<br>Where the subdivision contains a reticulated water supply, the road network and fire hydrants are designed and installed in accordance with:<br>a) *Fire Hydrant and Vehicle Access Guidelines for residential, commercial and industrial lots,* Queensland Fire and Emergency Services, 2015, unless otherwise specified by the relevant water entity; and<br>*b)* the *Road Planning and Design Manual 2nd edition*, Department of Transport and Main Roads, 2013. | AO8.1 not applicable to this development.<br>Proposed internal road network to be designed in accordance with:<br>• *Fire Hydrant and Vehicle Access Guidelines for residential, commercial and industrial lots,* Queensland Fire and Emergency Services, 2025; and<br>• the *Road Planning and Design Manual 2nd edition*, Department of Transport and Main Roads, 2013.<br>Internal roads should be wide enough to enable two vehicles to pass without obstruction or giving way to the other vehicle. |

# 7. CONCLUSIONS & RECOMMENDATIONS

## 7.1. BUSHFIRE HAZARD ASSESSMENT AND RISK ASSESSMENT

An assessment of the site and its surrounding environment has demonstrated the bushfire hazard across the majority of the subject site is Low, with an area of Medium bushfire hazard retained within the site, suitably separated from the proposed new lots to achieve acceptable potential radiant heat flux to future residential development. The surrounding landscape to the west, east and south is identified as Low bushfire hazard, with Medium hazard identified to the north separated by the Lysdale Road reserve. Approximately half of the proposed new lots are within the associated 100m potential impact buffer of these Medium bushfire hazard areas, indicating some potential for radiant heat, smoke and ember attack, however this has been demonstrated to be minimal in the context of the likely bushfire scenario and all new lots allow for internal setbacks to achieve a maximum 29 kW/$m^2$ radian heat flux objective consistent with planning controls. The fire history identified within the local area and the distribution of bushfire fuels in the landscape identifies that bushfire occurrence for the subject site is Unlikely.

The risk assessment identifies that the proposed use and the nature of the infrastructure to be developed at the site can carry a low degree of risk in the absence of appropriate bushfire management due to the removal of bushfire fuels in the clearing and development of the site – however, the application of fit for purpose mitigation measures effectively ensures the risk associated with bushfire at the site is minimised, through separation distance from native vegetation and bushfire fuel minimisation within proximity to future dwellings and associated structures.

## 7.2. BUSHFIRE HAZARD OVERLAY CODE

The proposal complies with the South Burnett Regional Council Planning Scheme Bushfire Hazard Overlay Code 7.2.1.

## 7.3. BUSHFIRE MANAGEMENT PLAN

Due to the low hazard nature of the proposed development design, further specific bushfire management planning is not required. Recommendations are provided to assist in the development of the site to achieve low bushfire risk for the development.

## 7.4. RECOMMENDATIONS

The following recommendations are made to support the development of the site and achieve bushfire hazard mitigation with minimal impact to the core use of the site, and ensure the development meets the objectives of the Bushfire Hazard Overlay Code.

### 7.4.1. PROPERTY FIRE PLAN

Each property should develop a fire plan, which should be reviewed annually, including fuel management activities and evacuation plans. Property owners should engage with the Rural Fire Service to achieve bushfire management objectives that are complimentary to the area. QFES provides resources for rural property management on their website: https://www.qfes.qld.gov.au/prepare/bushfires.

### 7.4.2. AS3959 (CONSTRUCTION IN BUSHFIRE PRONE AREAS)

Future residential structures located in the site will be subject to compliance with AS3959, under the Building Act 1975 and National Construction Code. This will provide resilience for structures and support shelter in place plans for residents in response to bushfires in the broader region.

### 7.4.3. LANDSCAPING – PLANT SELECTION

Plant selection for bushfire prone areas should avoid species containing high concentrations of flammable oils (eucalypt and palm species), and preference evergreen species less prone to annual dry season leaf drop. Consideration should be given to species which exhibit a habit or form that allows for separation from surrounding plants, either vertically or horizontally. For example, some conifer species grow branches from ground level, allowing flame contact from burning ground litter, and providing vertical connectivity. Preference should be given to species that have a clean trunk and clearly separated head of vegetation where there is risk of ignition from ground or surface vegetation (such as underneath or adjacent to elevated decks and floor structures).

General guidance for bushfire resilient building and landscaping is available online from the Queensland Reconstruction Authority:

https://www.qra.qld.gov.au/sites/default/files/2020-12/QRA_Bushfire_builing_guideline.PDF)

The Country Fire Authority publication 'Landscaping for Bushfire' provides a comprehensive guide for landscape planning and plant selection. It can be accessed online:

https://www.cfa.vic.gov.au/plan-prepare/how-to-prepare-your-property/landscaping .

It is recommended that these resources be reviewed during the landscape planning for this development. While the CFA publication is produced by Victorian authorities and describes southern plant species, the plant form and type selection criteria can be applied to local and tropical plants with equal relevance. This assists in identifying the most appropriate amenity plantings and landscaping materials suited to development in a bushfire prone landscape.

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# APPENDIX A – MAPS

BUSHFIRE HAZARD ASSESSMENT

Lot 59 Lysdale Road,
Wondai (59SP184725)

SITE LOCATION

Legend

- Property Boundaries
- 59SP184725
- Assessment Area
- Proposed Development - New Road Access
- Proposed Development - Stage 1
- Proposed Development - Stage 2
- Proposed Development - Stage 3
- Roads
- Watercourses

0 50 100 200 300 400 500
Meters
Coordinate System: GDA 1994 MGA Zone 55

Limitation & Disclaimer:
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Map prepared to support technical report
7-50-30_BHA_Lot59_LysdaleRoad_Wondai_v1.0.
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Notes:
Property Boundaries and Development Properties from
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Roads from !Q_QLD_ROAD_BASELINES.shp@Queensland Governme
Drainage from Vegetation_management_watercourse_and_
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BUSHFIRE HAZARD ASSESSMENT

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**TOPOGRAPHY AND HYDROLOGY**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Development
- Assessment Area
- Contours (5m)
- Watercourses

**Slope (Degrees)**

- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- >20 degrees

0 50 100 200 300 400 500

Meters

Coordinate System: GDA 1994 MGA Zone 55

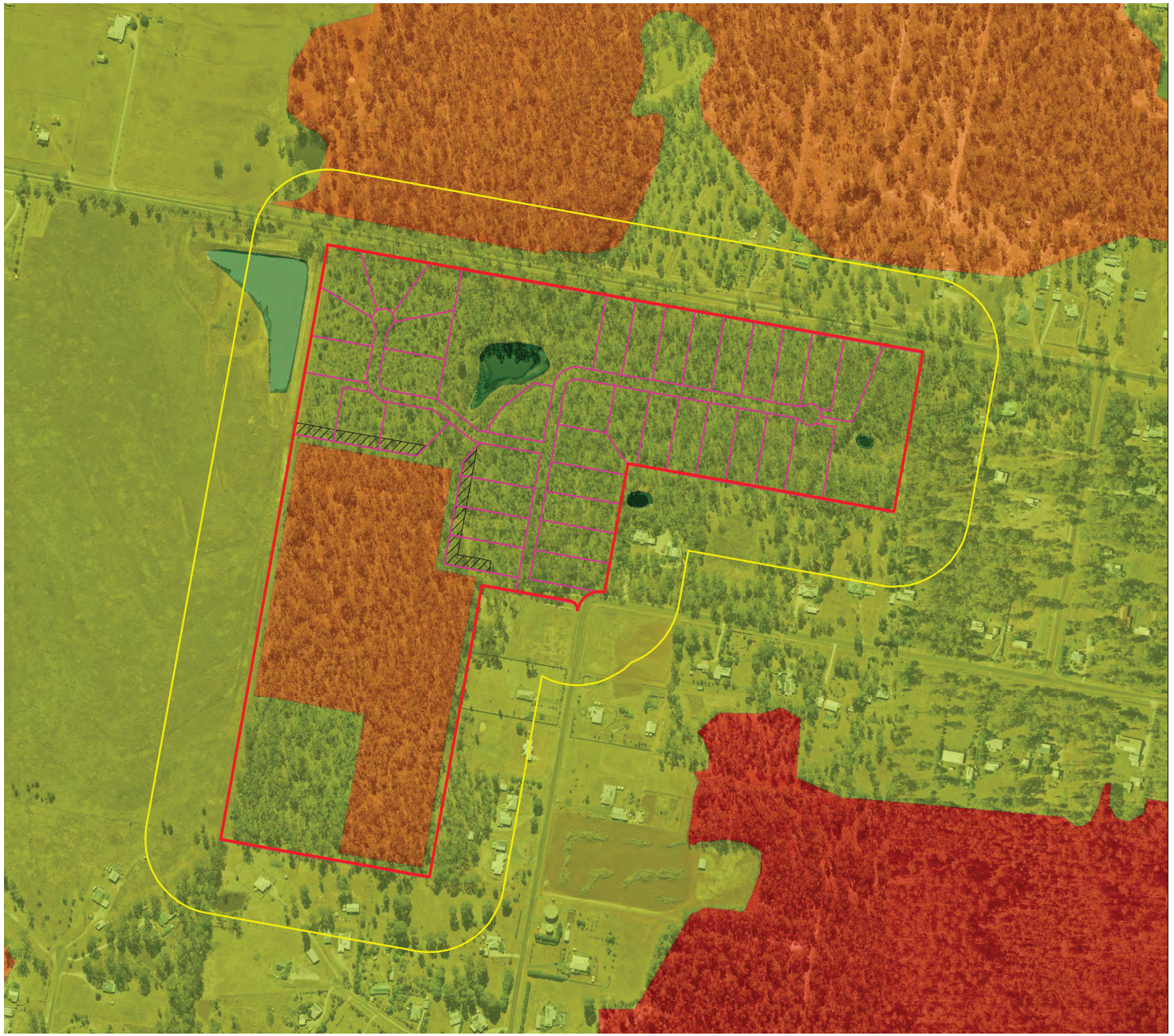
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Slope derived from 1s DEM from Queensland LIDAR Data @Queensland Government




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BUSHFIRE HAZARD ASSESSMENT

**Lot 59 Lysdale Road,**
**Wondai (59SP184725)**

**VEGETATION**
**AND BUSHFIRE FUELS**
**POST DEVELOPMENT SCENARIO**

**Legend**

- 59SP184725
- Proposed Development
- Assessment Area
- Asset Protection Zone Requirement VHC 9.2 - 15.5m

**Vegetation Hazard Class (Fuel Weight (tonnes per hectare))**

- 43.6 Water bodies or very low vegetation cover (0 tph)
- 41.4 Low grass or tree cover in built-up areas (3 tph)
- 40.4 Low grass or tree cover in rural areas (5 tph)
- 16.2 Eucalyptus dominated woodland on drainage lines and alluvial plains (11.6 tph)
- 13.2 Dry to moist eucalypt woodlands on undulating metamorphics and granite(14.4 tph)
- 9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges (17.2 tph)
- 10.1 Spotted gum dominated open forests (20.8 tph)

0 50 100 200
Meters

N

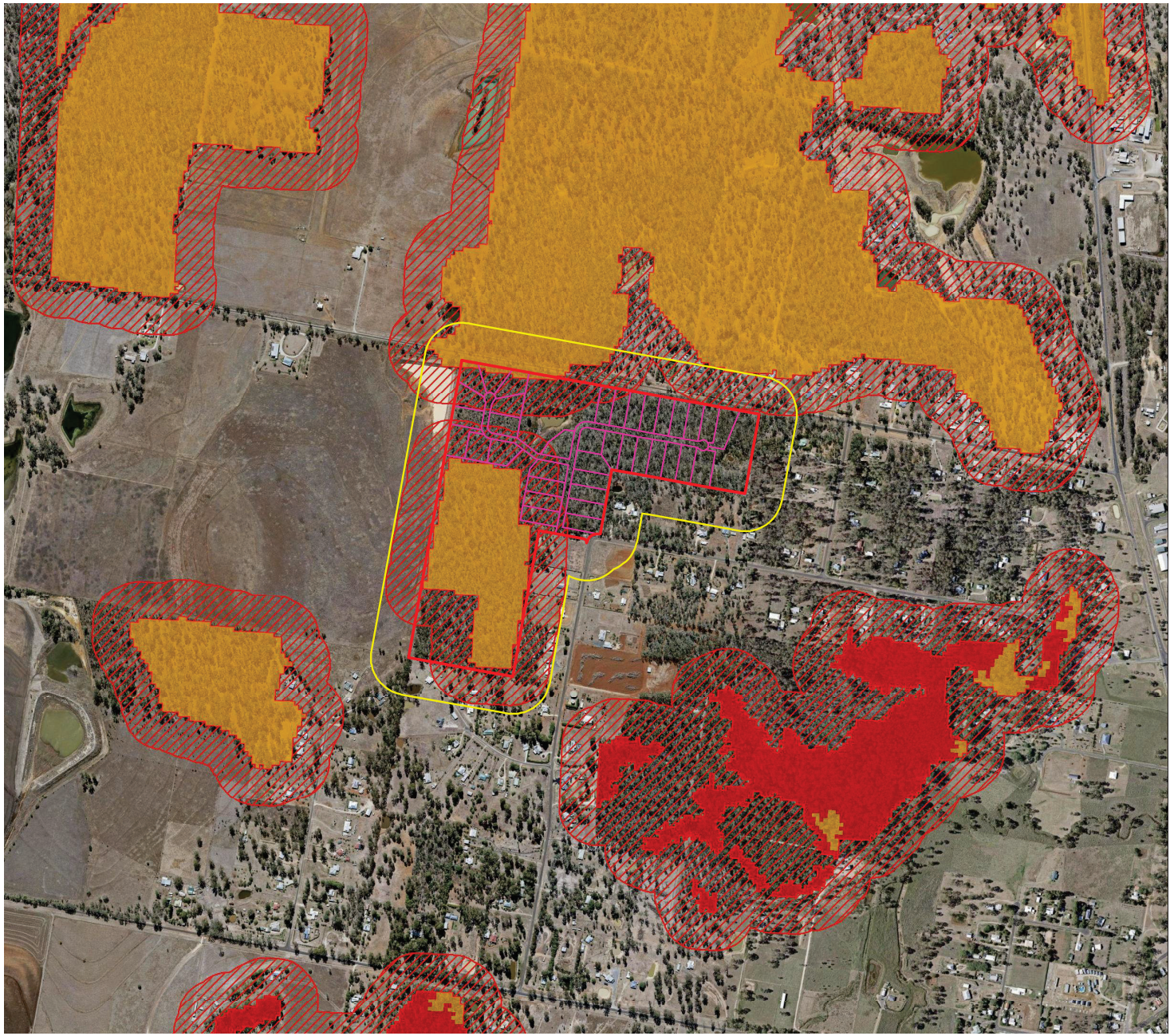
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using the methodology in Bushfire Resilient Communities
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BUSHFIRE HAZARD ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
FIRE HISTORY
Legend
59SP184725
Proposed Development
Assessment Area
Highway (Arterial Road)
Secondary (Sub Arterial)
0 0.5 1 2 3
Kilometers
Coordinate System: GDA 1994 MGA Zone 55
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drainage_feature_map_(100k)@Queensland Government.
Fire Frequency and Time since last burn from NAFI (2023)
Fire History (QPWS) © State of Queensland
(Department of Environment and Science), 2023
Airphoto from TimeSeriesAerialOrtho_AllUsers@Queensland Governmen
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Fire Scars 2019-2023 (DETSI 2025)
2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025
Wondai - Proston Road
Bunya Highway
Hivley Street
Bunya Highway
Fire History (QPWS, 2025)
Planned Burn
Unplanned Burn



BUSHFIRE HAZARD ASSESSMENT

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BUSHFIRE HAZARD MODEL**

**Legend**

- 59SP184725
- Proposed Development
- Assessment Area

**Bushfire Hazard Model**

- Medium Potential Bushfire Intensity (4,000 – 20,000kW/m)
- High Potential Bushfire Intensity (20,000 – 40,000kW/m)
- Potential Impact Buffer (100m)

0 50 100 200 300 400 500

Meters

Coordinate System: GDA 1994 MGA Zone 55

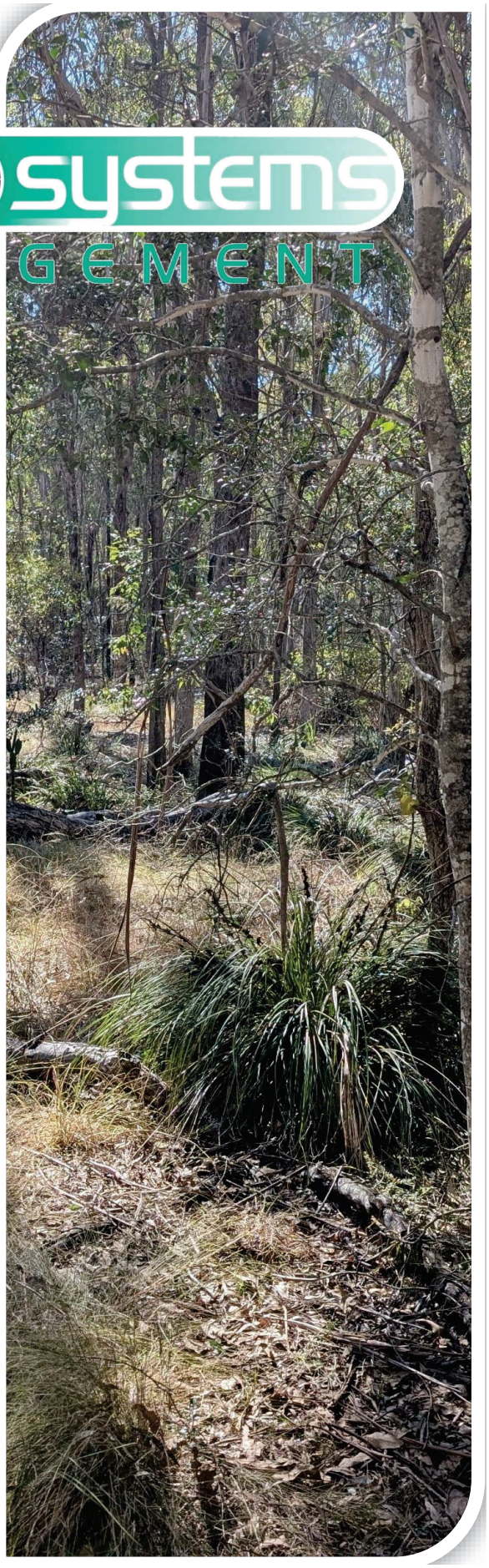
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# BAL ASSESSMENT REPORT

**LOT 59 LYSDALE ROAD,**
**WONDAI**
**(59SP184725)**

**TECHNICAL REPORT 7-50-30_1**

*Technological Solutions for Sustainable Natural Resource Management*

Ecosystems Management (Aust) Pty Ltd
ACN: 665 541 953
38 Darling Road
Jensen
QLD 4818

**STATEMENT OF QUALIFICATION**

This BAL Assessment Report has been prepared by Marcia Griebenow. I have over 15 years' experience in bushfire management and environmental management, practicing in Victoria, New South Wales and Queensland. I have a Bachelor of Environmental Science (Management) from Charles Sturt University, and the Postgraduate Diploma in Bushfire Protection from the University of Western Sydney.
I am suitably qualified and experienced to undertake a BAL Assessment and prepare recommendations for construction requirements in bushfire prone areas.



**Marcia Griebenow** BEnvSc GradDip (Bushfire Protection) MEIANZ

**LIMITATION AND DISCLAIMER.**

This report has been prepared by Ecosystems Management (Aust) Pty Ltd (EMA) with all reasonable skill, care and diligence. This report is for the exclusive use of **Cameron Ansell** or their agent. It is the responsibility of the client to implement this plan, and its associated recommendations. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from EMA. EMA accepts no responsibility to any party in respect of any matters outside the agreed scope of the work, and accepts no liability for implementation of recommended management actions using management plans prepared by other parties.

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# 1. INTRODUCTION

Ecosystems Management (Aust) Pty Ltd (EMA) has been engaged to undertake a BAL Assessment and provide construction requirements for all new lots to be implemented in the development of Lot 59 Lysdale Road, Wondai (59SP184725), in preparation for construction planning regarding class 1 structures. This BAL assessment has considered the landscape within 100m of the development area.

The development is supported by a Bushfire Management Plan prepared by EMA in December 2025 (Ref: 7-50-30), due to the site being within the bushfire prone land overlay of the South Burnett Regional Council planning scheme. The work by EMA provided a post development bushfire hazard model, identifying the remnant vegetation within and around the site that is considered bushfire prone according to state planning policy assessment methodology (QFES, 2019).

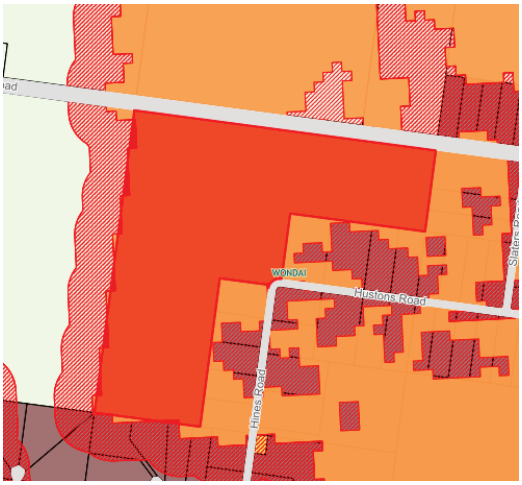



FIGURE 1 BUSHFIRE HAZARD OVERLAY FOR LOT 59 LYSDALE ROAD, WONDAI (SOUTH BURNETT REGIONAL COUNCIL, 2023)

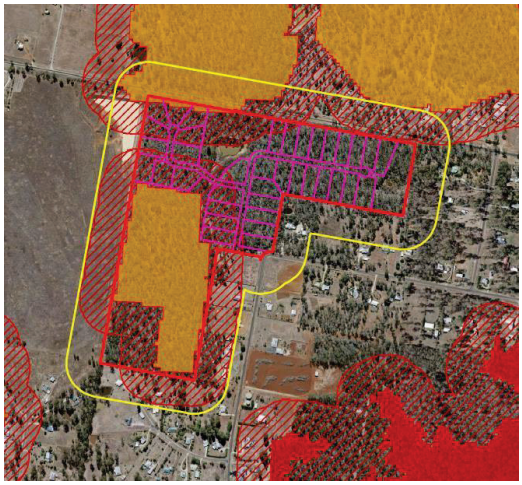


FIGURE 2 BUSHFIRE PRONE LAND MODEL FOR DEVELOPMENT SCENARIO (EMA, 2025).

The site location is detailed in both the Site Location and the BAL Assessment maps in Appendix A; with the defining boundaries of the new lots provided by Stuart Nicholson in Lysdale Estate – Proposal Plans, draft rev 1, 13/08/2025.

The requirements for construction of buildings in bushfire prone areas are specified in AS3959 (Construction of buildings in bushfire-prone areas (SAL, 2011)). The construction standards identified in the standard are aimed at achieving resilience against the mechanisms of bushfire attack, relevant to the specific site, to provide a place of refuge during the passage of a fire front, enabling occupants to then actively protect the building from the residual impact from the passage of a bushfire front.

The Bushfire Attack Levels and description of predicted bushfire attack is described in Table 1.

TABLE 1 BAL AND DESCRIPTION OF LEVELS OF EXPOSURE (FROM AS3959-2018, (SAL, 2011))

| BAL | Heat flux exposure thresholds | Description of predicted bushfire attack and levels of exposure |
|---|---|---|
| BAL – 12.5 | ≤ 12.5 kW/m$^2$ | Ember Attack |
| BAL - 19 | > 12.5 kW/m$^2$<br>≤ 19 kW/m$^2$ | Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux. |
| BAL – 29 | >19 kW/m$^2$<br>≤ 29 kW/m$^2$ | Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux. |
| BAL – 40 | >29 kW/m$^2$<br>≤ 40 kW/m$^2$ | Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames. |
| BAL - FZ | > 40 kW/m$^2$ | Direct exposure to flames from fire front in addition to heat flux and ember attack. |

### 1.1. BAL ASSESSMENT METHODOLOGY

The BAL Assessment methodology uses quantified factors contributing to bushfire behaviour to apply a classification of bushfire behaviour to a defined location (such as a house site or property boundary). The assessment considers vegetation and slope within a 100m radius from the subject site.

Factors considered in the assessment of the BAL include:

- Identification of FFDI (Forest Fire Danger Index),
- Vegetation Classification
- Configuration of the site in relation to bushfire prone vegetation,
- Effective slope under bushfire prone vegetation,

The determined BAL is then used to identify the appropriate construction requirements.

# 2. SITE ASSESSMENT

### 2.1. SITE DESCRIPTION

The subject site is located 2.3km north west of Wondai town centre, and 25.6km north of Kingaroy. The subject site is currently comprised of a single Lot totalling 37.12ha, located on the north western extent of the Wondai township, in a rural residential zoned area bordering rural agricultural land parcels. The subject site is accessed from the junction of Hines Road and Hustons Road, with close connection to the Bunya Highway as the main transport link for the area (see Site Location Map in Appendix A).

To the west the subject site is bordered by a large rural agricultural land parcel, featuring a large dam adjacent to the north west of the site, low bushfire fuels, and a high degree of management. To the south and east the subject site is adjacent to a number of rural residential land parcels, all of which feature established residential development, and are maintained to a high degree, with very low bushfire fuels present across the majority of their area. The Lysdale Road reserve bounds the site to the north, providing a de facto fire break absent of bushfire fuels. Beyond Lysdale road to the north is a large rural land parcel featuring semi-natural vegetation. This vegetation has an intact overstory of mature trees, with the southern section of this site having a moderate degree of management that has reduced the surface, near surface, and elevated fuels present, and with the south eastern section of the site being managed to a very high degree around the developed use of the site.

Within the broader landscape there is a general divide in bushfire fuels present locally to the east and west of the Bunya Highway. West of the Bunya Highway (where the subject site is located) is dominated by agricultural land use, with a mixture of crop growing and grazing within well managed land parcels, and low bushfire fuels present. To the east of the Bunya Highway (and to the south and east of the Wondai township) are the McEuen State Forest and Wondai State Forest, connecting to the Cherbourg National Park and Cherbourg Conservation Park, with some additional connection to additional natural vegetation on private land to the north.

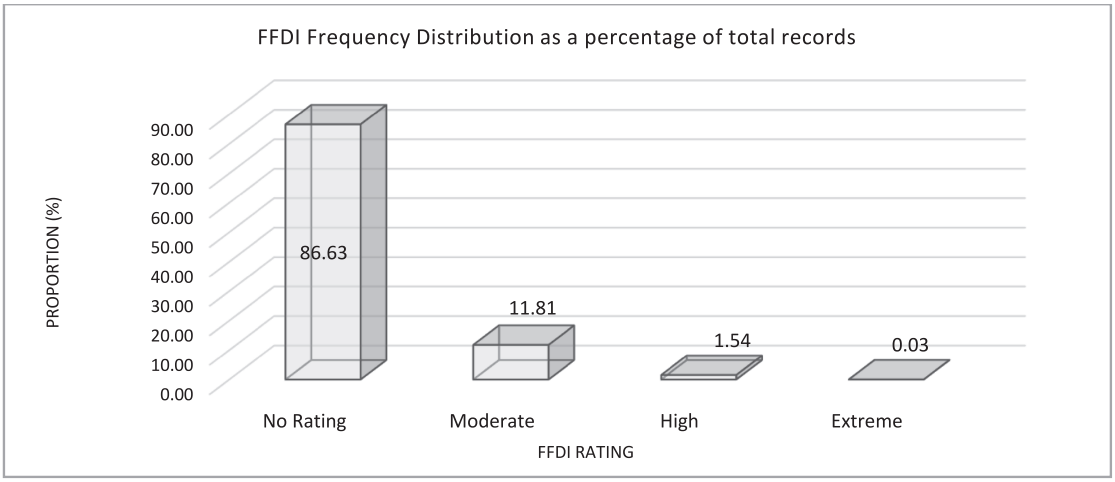
The proposal is for the Reconfiguration of a Lot under the requirements of the South Burnett Regional Council Planning Scheme to allow for subdivision of the site into 40 rural residential lots.

## 2.2. FIRE WEATHER AND FDI

The nearest Bureau of Meteorology weather station is Kingaroy Airport (replacing Kingaroy Prince Street in 2001) (Station number 040922, located at Kingaroy Airport (BOM, 2025 The site is within the subtropical region of south eastern Queensland. This area is characterised by cool winters and warm summers. Increased rainfall typically occurs from October to March. The fire season is usually recognised as the period from June, until the commencement of summer rainfall (which may be variable).

Mean maximum temperatures occur in January (30.9 °C), and mean minimum temperatures occur in July (3.9 °C). The climate can generally be classified as having moderate humidity, with the minimum humidity occurring in October with a mean 3pm relative humidity of 33%, and maximum humidity occurring in February with a mean 3pm humidity in February at 52%. The predominant winds throughout the year are from the east and south east. These winds are moist, rather than dry, and therefore have a lesser drying effect on fine fuels in the region. Occasionally dry winds come from the west (as well as the north west and south west), however, these are less common and typically do not persist for more than a couple days at a time. Wind strength is highest during late winter and early spring with gusting winds occurring from variable prevailing wind direction, increasing the rate at which fine fuels may dry.

AS3959-2018 identifies an applicable FDI of 40 for Queensland, which falls into the classification of Very High fire danger. It is noted that tropical climates exhibit different fire behaviour and fire weather characteristics to southern parts of Australia, with less frequent occurrences of extreme fire weather conditions. Subsequently, a review of historical fire weather data (Lucas, 2009) shows that while Very High (FDI 25 < 49) and Extreme (FDI 50 < 74) fire weather does occur in the Townsville area, these are infrequent and not prolonged occurrences (Graph 1 shows frequency distribution of FFDI over 43 years of records). There are no records of fire weather reaching the classification of 'Catastrophic' or an FDI exceeding 100, which is experienced more frequently in southern parts of Australia and is correlated with the occurrence of significant bushfire events in the southern states. This observation is supported by research undertaken by Tropical Savannas CRC (2001), for various locations across northern Australia including Rockhampton (QLD) and Katherine (NT), which both have similar annual rainfall to Townsville.




GRAPH 1 FFDI FREQUENCY DISTRIBUTION

## 2.3. TOPOGRAPHY

The subject site is located within an area of generally flat land to the north east of the Wondai township, with the local area is defined as being located within the South Burnett biogeographic subregion. The subject site (and the Wondai township) occurs on an area of flat plains, with a horseshoe of increased slope surrounding to the west, south, and east. This area of slope has low localised peaks, but forms a broad area of variable slope, rather than a typical range. The closest area of increased, variable slope occurs 3.8km to the east of the subject site.

The subject site itself is close to flat uniformly across the majority of its area, with very low consistent slope rising to the south. There are very localised areas of steep slope associated with the dam earthworks present on and adjacent to the site, with no other areas of increased slope present.

Outside of anthropogenic features, slope across the site varies between 1 and 4 degrees.

## 2.4. VEGETATION AND BUSHFIRE FUELS

Bushfire behaviour is primarily dictated by the availability and arrangement of fine fuels (<6mm diameter), which contribute mostly to the rate of spread and flame height. The Overall Fuel Hazard Assessment Guide (DSE, 2010) is widely accepted as a primary resource for assessing fuel hazard in terms of fuel arrangement and distribution. Fuel is classified by its vertical structure and horizontal distribution (see Figure 3). AS3959 provides a classification scheme for vegetation, based on a national classification scheme developed by R. Specht. The methodology in the standard does not allow for deviation from this classification scheme based on variations embodied in other state specific vegetation classification schemes, nor does it allow for adjustment of fuel loads in calculations based on locally derived or site-specific fuel hazard measurements.

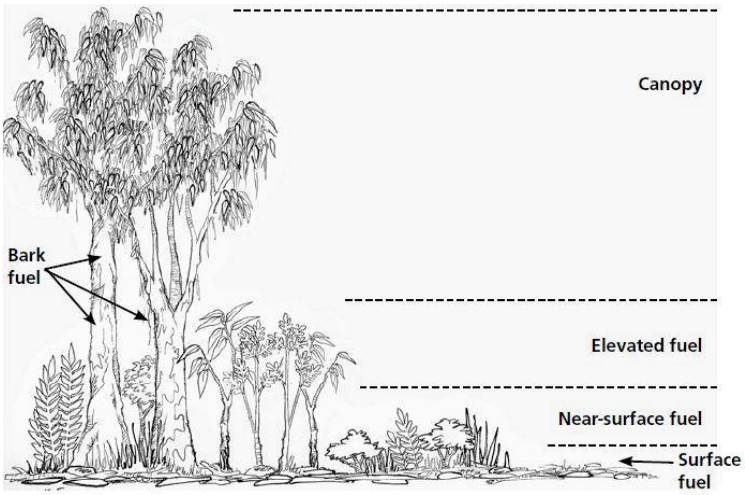



FIGURE 3 FINE FUEL CLASSIFICATION (DSE, 2010)

The vegetation classification system of AS3959 draws a distinction between Forest and Woodland, primarily based on percentage foliage cover; less than 30% foliage cover is considered woodland, greater than 30% foliage cover is considered forest, with the fire behaviour characteristic of potential for crown fire as the principal factor in this distinction. Low Woodland with some shrubs is considered to be Woodland for the purposed of BAL Assessment. Open woodland with foliage cover less than 10% is considered as grassland for the purposes of BAL Assessment vegetation classification.

The extent of classified woodland and forest vegetation types is considered to be the edge of unmanaged understory, rather than the canopy dripline or trunk of trees constituting this classification, which can be related back to the fine fuel contribution to rate of spread and flame height.

In addition to the vegetation classification in AS3959, the National Construction Code contains a variation peculiar to Queensland. Part 3.10.5 (Construction in bushfire prone areas) in Queensland states:

> 1) Subject to (b), *Performance Requirement* P2.7.5 is satisfied for—
>
> a) a Class 1 building; or
>
> b) a Class 10a building or deck associated with a Class 1 building,
>
> located in a *designated bushfire prone area* if it is constructed in accordance with—
>
> a) AS 3959; or
>
> b) NASH Standard – Steel Framed Construction in Bushfire Areas.
>
> 2) The requirements of (a) do not apply when, **in accordance with AS 3959, the classified vegetation is Group F rainforest (excluding wet sclerophyll forest types), mangrove communities and grasslands under 300 mm high**.
>
> *National Construction Code 2019, Volume 2, Amendment 1*

The development plan anticipates that only minimal earthworks will be required for the proposed lots, retaining vegetative overstory and mature trees consistent with the expectations of rural residential amenity, with management of understory bushfire fuels.

The proposed development will be serviced by a reticulated water supply connecting to South Burnett Regional Council's existing water reticulation network.



FIGURE 4 VIEW SOUTH ALONG THE HINES ROAD RESERVE



FIGURE 5 VIEW EAST ALONG THE LYSDALE ROAD RESERVE



FIGURE 6 VIEW WEST INTO RURAL AGRICULTURAL PARCEL WITH LOW BUSHFIRE FUELS



FIGURE 7 VIEW OF WOODLAND VEGETATION PRESENT ALONG THE CREEK LINE IN THE NORTH WEST SECTION OF THE SITE



FIGURE 8 VIEW NORTH INTO TYPICAL VHC9.2 WOODLAND VEGETATION STRUCTURE FOR THE SITE



FIGURE 9 VIEW EAST INTO WOODLAND VEGETATION IN THE SOUTHERN SECTION OF THE SITE WITH GRASSY GROUNDCOVER

# 3. BAL ASSESSMENT PARAMETERS

The simplified procedure (Method 1) for BAL assessment is fully described in Section 2.2 of AS3959. It utilises a number of quantitative factors, based on site characteristics.

## 3.1. FIRE DANGER INDEX

The Fire Danger Index (FDI) identified for Queensland is 40 (Table 2.1 of AS3959).

## 3.2. VEGETATION CLASSIFICATION

Vegetation within 100m of the subject site shall be classified in accordance with Table 2.3 and Figures 2.4(A) to 2.4(G) of AS3959. Where there is more than one vegetation type, each type shall be classified and assessed separately. The bushfire attack level will be determined to be BAL-LOW where vegetation is a low threat.

## 3.3. DISTANCE FROM CLASSIFIED VEGETATION

The distance to classified vegetation is taken in the horizontal plane; to the nearest external wall of the proposed building, or for parts that do not have filled walls (i.e. carport or verandah), to the supporting structure.

### 3.4. EFFECTIVE SLOPE

The effective slope is taken as the slope of the land underneath the subject bushfire prone vegetation, disregarding the slope of the land between the building and the vegetation.

### 3.5. BUSHFIRE ATTACK LEVEL

BAL is based on the distance from classified vegetation and effective slope, Table 2.4.5 from AS3959-2018 will define the BAL appropriate to the site.

## 4. BAL ASSESSMENT – LOT 59 LYSDALE ROAD, WONDAI

### 4.1. FIRE DANGER INDEX

The Fire Danger Index (FDI) identified for Queensland is 40 (Table 2.1 of AS3959).

### 4.2. VEGETATION CLASSIFICATION

There are two vegetation classes assessed for this site, shown in the attached map (BAL Assessment):

- Low Fuel Load –Urban/Rural Development
- Waterbodies
- Woodland

### 4.3. DISTANCE FROM CLASSIFIED VEGETATION

The distance between classified vegetation and respective properties or building envelopes will vary, and is shown in the BAL Assessment Map in Appendix 1.

### 4.4. EFFECTIVE SLOPE

| Slope | Lots |
|---|---|
| Flat or Upslope (0 degrees) | 1, 2, 7, 8, 9, 10, 31, 32, 33 |
| Downslope (0 < 5 degrees) | 12, 13, 29, 30, 35, 36, 37, 38, |

### 4.5. BAL LEVEL

The assessed proposed lots within Lot 59 Lysdale Road, Wondai are subject to BAL levels as defined in the overview BAL assessment map and individual lot assessment maps in Appendix 1.

A Bushfire Attack Level only applies to a structure if that structure passes through the coloured BAL buffer area on the BAL Assessment Map (see Appendix 2). If the structure is set back outside of the coloured BAL Buffer, then the building is considered BAL Low and there are no construction requirements under AS3959.

**TABLE 2 BUSHFIRE ATTACK LEVEL RELATING TO EACH LOT**

| Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification |
|---|---|---|---|---|---|---|---|---|
| **1** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the W section of the lot – maximum extent 25m from W boundary. | **14** | BAL Low | | **27** | BAL Low | |
| **2** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the SW section of the lot – maximum extent 15m from SW corner. | **15** | BAL Low | | **28** | BAL Low | |
| **3** | BAL Low | | **16** | BAL Low | | **29** | BAL Low;<br>BAL 12.5;<br>BAL 19;<br>BAL 29;<br>BAL 40;<br>BAL FZ | BAL FZ is present across the majority of the lot, however,<br>the building envelope in the SW section of the lot is only subject to BAL Low and BAL 12.5.<br>BAL 12.5 is present across the majority of the build envelope, with BAL Low present in the SW quarter. |
| **4** | BAL Low | | **17** | BAL Low | | **30** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of both the lot and proposed build envelope, with BAL 12.5 present across their N sections – with the maximum extent of BAL 12.5 in to the proposed build envelope being 44m. |
| **5** | BAL Low | | **18** | BAL Low | | **31** | BAL 12.5;<br>BAL 19;<br>BAL 29 | BAL 12.5 is present across the majority of both the lot and proposed building envelope.<br>BAL 19 and 29 extend into the lot from the S boundary but not into the building envelope. |
| **6** | BAL Low | | **19** | BAL Low | | **32** | BAL Low<br>BAL 12.5;<br>BAL 19;<br>BAL 29 | BAL 12.5 is present across the majority of the lot.<br>BAL Low is only present across a very small area adjacent to the N boundary.<br>BAL 19 and 29 extend into the lot from the S boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19. |

| Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification |
|---|---|---|---|---|---|---|---|---|
| **7** | BAL 12.5; BAL 19; BAL 29 | BAL 12.5 present for the majority of the lot.<br>BAL 19 and BAL 29 extend into the lot from the W boundary and the western half of the S boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19 from the site boundary. | **20** | BAL Low | | **33** | BAL Low<br>BAL 12.5; BAL 19; BAL 29 | BAL 12.5 is present across the majority of the lot.<br>BAL Low is present in an area adjacent to the N boundary of the lot – maximum extent 14m from the N boundary.<br>BAL 19 and 29 extend into the lot from the S boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19. |
| **8** | BAL Low<br>BAL 12.5; BAL 19; BAL 29 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in a small area of the NE comer only.<br>BAL 19 and BAL 29 extend into the lot from the W boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19 from the site boundary. | **21** | BAL Low | | **34** | BAL Low | |
| **9** | BAL Low<br>BAL 12.5; BAL 19; BAL 29 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present along the eastern boundary only – extending a maximum of 10m from the E boundary.<br>BAL 19 and BAL 29 extend into the lot from the W boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19 from the site boundary. | **22** | BAL Low | | **35** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the NW section of the lot – maximum extent 36m from NW corner. |
| **10** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present along the eastern boundary only – extending a maximum of 28m from the E boundary. | **23** | BAL Low | | **36** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in the southern section only – extending a maximum of 17m from the SW boundary. |
| **11** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 is present at the SW corner of the lot only – extending a maximum of 21m from the SW corner. | **24** | BAL Low | | **37** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in the southern section only – extending a maximum of 8.5m from the S boundary. |

| Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification |
|---|---|---|---|---|---|---|---|---|
| **12** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 is present at the northern section of the lot only – extending a maximum of 44m from the NW corner. | **25** | BAL Low | | **38** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in the southern section only – extending a maximum of 17m from the S boundary. |
| **13** | AL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 is present at the NW corner of the lot only – extending a maximum of 35m from the NW corner. | **26** | BAL Low | | **39** | BAL Low | |
| | | | | | | **40** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the NW section of the lot – maximum extent 4.75m from SW boundary. |

# 5. BUSHFIRE ATTACK LEVEL (BAL)

The assessed proposed lots at Lot 59 Lysdale Road, Wondai are subject BAL construction requirements as defined in Table 2 and shown in the BAL Assessment Maps in Appendix 1.

Table 3 identifies the setback distance from classified vegetation (Woodland) for Upslope and Flat land; this can be referred to for onsite validation of BAL ratings.

The bushfire attack level imposed by Woodland Vegetation is shown in the **BAL Parameters** map in Appendix 1.

**TABLE 3 SEPARATION DISTANCES FOR BAL RATINGS FOR IDENTIFIED VEGETATION CLASSES (FROM TABLE 2.7 OF AS3959)**

| Vegetation Classification | Bushfire Attack Levels (BALs) | | | | |
|---|---|---|---|---|---|
| | BAL - FZ | BAL – 40 | BAL --29 | BAL – 19 | BAL – 12.5 |
| | Distance (m) of the site from the predominant vegetation class | | | | |
| Woodland | All upslopes and flat land (0 degrees) | | | | |
| | <6 | 6 - <9 | 9 - <13 | 13 - <19 | 19 - <100 |
| Woodland | Downslope 0 to 5 degrees | | | | |
| | <8 | 8 - <11 | 11 - <16 | 16 - <23 | 16 - <100 |

The distances indicated in Table 3 are measured from the unmanaged understory of woodland vegetation, the nearest supporting part of the structure (see Section 6.1.2 for further detail).

# 6. CONSTRUCTION REQUIREMENTS.

Lots subject to BAL ratings maintain BAL 12.5 across all building envelopes (Lots 1, 2, 7, 8, 9, 10, 31, 32, 33, 12, 13, 29, 30, 35, 36, 37, and 38) as identified in the attached Bushfire Attack Level maps. Lots not listed here are not required to meet AS3959 standards.

## 6.1. RECOMMENDATIONS

In addition to BAL construction compliance, it is important that other bushfire mitigation measures be considered. These include access to water supplies for firefighting (assuming a stay and defend strategy is included in the occupant's fireplan), appropriate placement of gardens and landscaping, and annual building maintenance including removal of leafy debris accumulated on low pitched roofs and in gutters and removal of garden rubbish including lawn clippings.

### 6.1.1. Landscaping – Plant Selection

Plant selection for bushfire prone areas should avoid species containing high concentrations of flammable oils (eucalypt and palm species), and preference evergreen species less prone to annual dry season leaf drop. Consideration should be given to species which exhibit a habit or form that allows for separation from surrounding plants, either vertically or horizontally. For example, some conifer species grow branches from ground level, allowing flame contact from burning ground litter, and providing vertical connectivity. Preference should be given to species that have a clean trunk and clearly separated head of vegetation where there is risk of ignition from ground or surface vegetation (such as underneath or adjacent to elevated decks and floor structures).

General guidance for bushfire resilient building and landscaping is available online from the Queensland Reconstruction Authority:

https://www.qra.qld.gov.au/sites/default/files/2020-12/QRA_Bushfire_builing_guideline.PDF)

The Country Fire Authority publication 'Landscaping for Bushfire' provides a comprehensive guide for landscape planning and plant selection. It can be accessed online:

https://www.cfa.vic.gov.au/plan-prepare/how-to-prepare-your-property/landscaping.

It is recommended that these documents be reviewed during the landscape planning for this site. While the CFA publication is produced by Victorian authorities and describes southern plant species, the plant form and type selection criteria can be applied to local and tropical plants with equal relevance. This assists in identifying the most appropriate amenity plantings and landscaping materials suited to development in a bushfire prone landscape.

### 6.1.2. Separation Distance Measurements

Separation distance is measured in a flat plane (ignores topography), and is measured from the nearest face of the structure, ignoring soffit overhang, to the trunks of the nearest bushfire prone vegetation. The canopy or dripline is not taken as the point of measurement. Where the classified vegetation is located on adjoining 'unmanaged land' the separation distance must be measured from the property boundary due to the inability to ensure ongoing low hazard fuel on the neighbouring land. Figure 10 shows the distance measured between A and B is the same regardless of topography.

In addition to this, for those parts of the building that do not have external walls (carports, verandas, decks, landings, steps and ramps), the distance is measured to the supporting posts or columns. The following parts of the building are excluded when measuring the distance A to B:

a) Eaves and roof overhangs,
b) Rainwater and domestic fuel tanks
c) Chimneys, pipes, cooling or heating appliances or other services,
d) Unroofed pergolas
e) Sun blinds

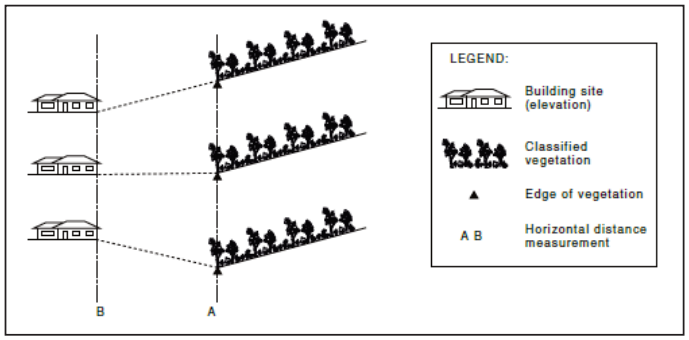



FIGURE 10 SEPARATION DISTANCE (FROM FIGURE 2.1, AS3959-2018)

### 6.1.3. Shielded Elevations

Elevations facing away or shielded from the direction of attack may be constructed to one BAL level lower than that specified for the structure generally, where a BAL applies to the structure. Elements of the structure that extend across the entire structure must comply with the higher BAL identified for the site (floor structure and roof structure), however facade elements may be reduced by one level where shielded according to the diagram in Figure 11, however cannot be reduced below BAL 12.5 (i.e. if the structure is assessed as BAL 12.5, the entire structure, and all facades must be constructed to meet BAL 12.5 requirements).

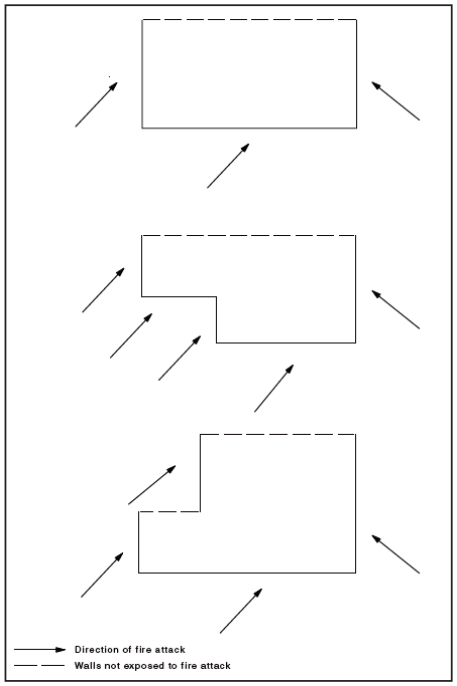



FIGURE 11 EXAMPLE OF ELEVATIONS SUBJECT TO SHIELDING (FROM FIGURE 3.1, AS3959 - 2018)

### 6.1.4. Low Threat Vegetation

Low Threat Vegetation is excluded from the vegetation classification when conducting the BAL Assessment.

According to AS3959, low threat vegetation is considered as:

- Non-vegetated areas, including waterways, roads, footpaths, buildings, and rocky outcrops.
- Low threat vegetation, including grassland managed in a **minimal fuel condition**, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

**Minimal fuel condition** means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm). While this can be extended to consider grass less than 300mm tall in Queensland (based on National Construction Code state specific parts), this should be considered for the purposes of landscaping and property design when considering the degree of vegetation clearing or modification to be undertaken within the nominated building envelopes.

## 6.2. LIMITATION

This assessment is based on the proposed creation of new land parcels and landscape management in Lysdale Estate – Proposal Plans, draft rev 1, 13/08/2025. If vegetation management is not executed consistent with these plans, then the BAL Assessment for individual sites may need to be reviewed.

Builders should confirm requirements associated with AS3959 prior to commencing construction. If the building certifier is uncertain of the correct parameters to establish the correct BAL, the author of this report should be consulted to revise the BAL of the specific property.

# REFERENCES

ABCB, 2019. *National Construction Code, Volume 2 (2019).* Australian Building Codes Board.

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EMA, 2025. *Technical Report 7-50-30. BUSHFIRE HAZARD ASSESSMENT AND MANAGEMENT PLAN – LOT 59 LYSDALE ROAD, WONDAI (59SP184725).* Unpublished.

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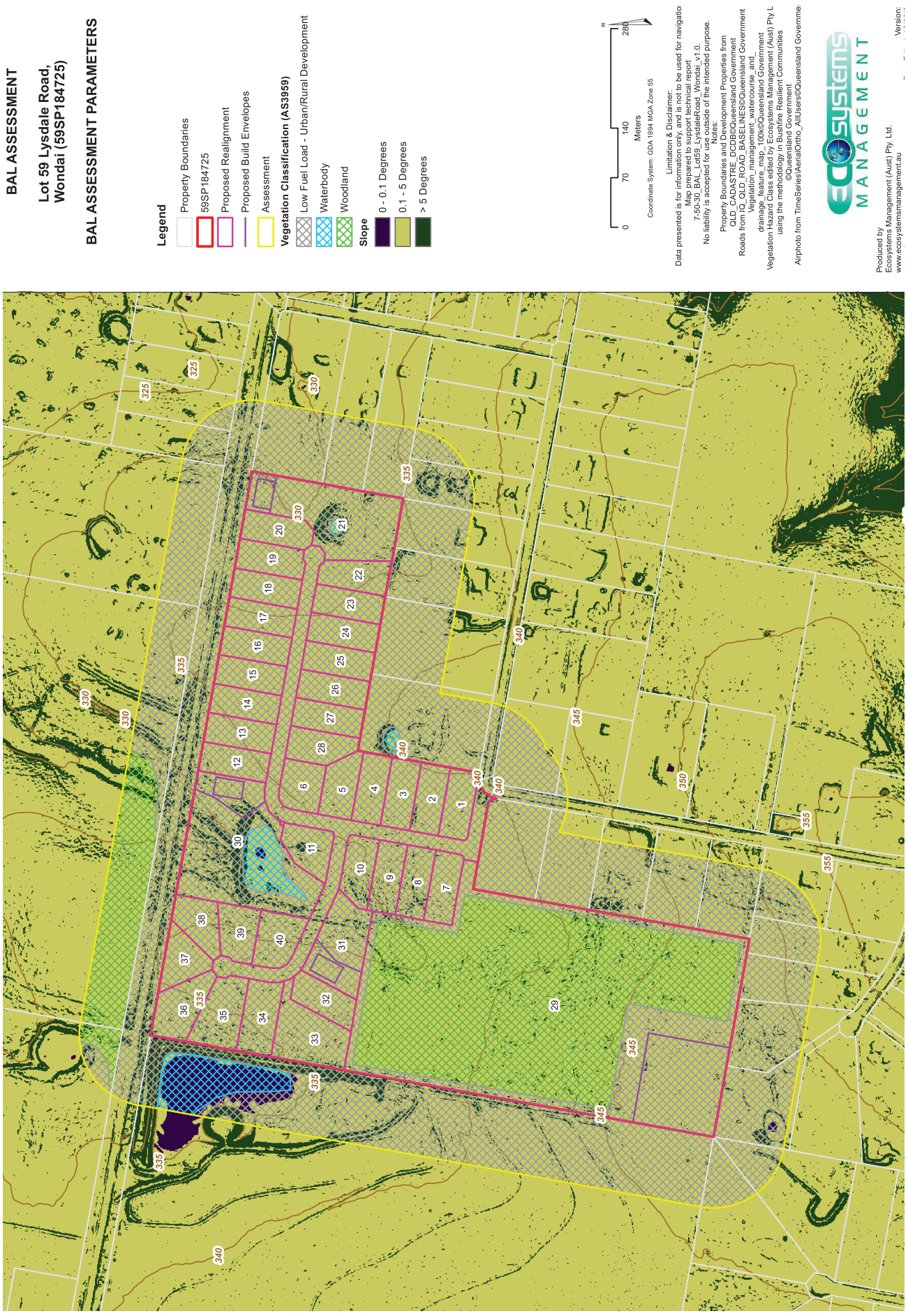
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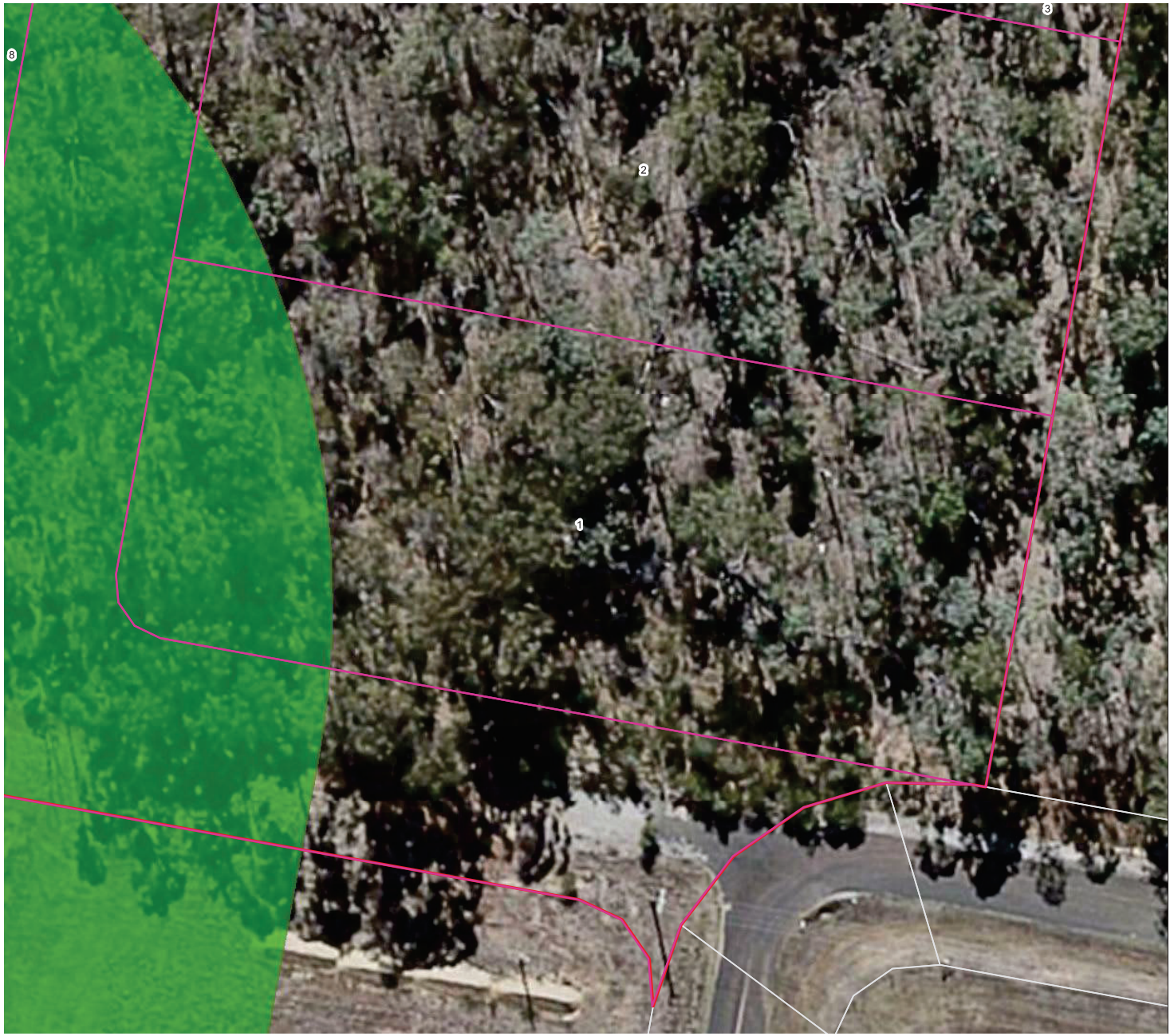
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# APPENDIX A – MAPS


BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL ASSESSMENT PARAMETERS
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment
Vegetation Classification (AS3959)
Low Fuel Load - Urban/Rural Development
Waterbody
Woodland
Slope
0 - 0.1 Degrees
0.1 - 5 Degrees
> 5 Degrees
N
0
70
140
280
Meters
Coordinate System: GDA 1994 MGA Zone 55
Limitation & Disclaimer:
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Map prepared to support technical report
7-50-30_BAL_Lot59_LysdaleRoad_Wondai_v1.0.
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Notes:
Property Boundaries and Development Properties from
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BUSHFIRE ATTACK LEVEL
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Classified Vegetation (AS3959)
Woodland
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
N
0 75 150 300
Meters
Coordinate System: GDA 1994 MGA Zone 55
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 1**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

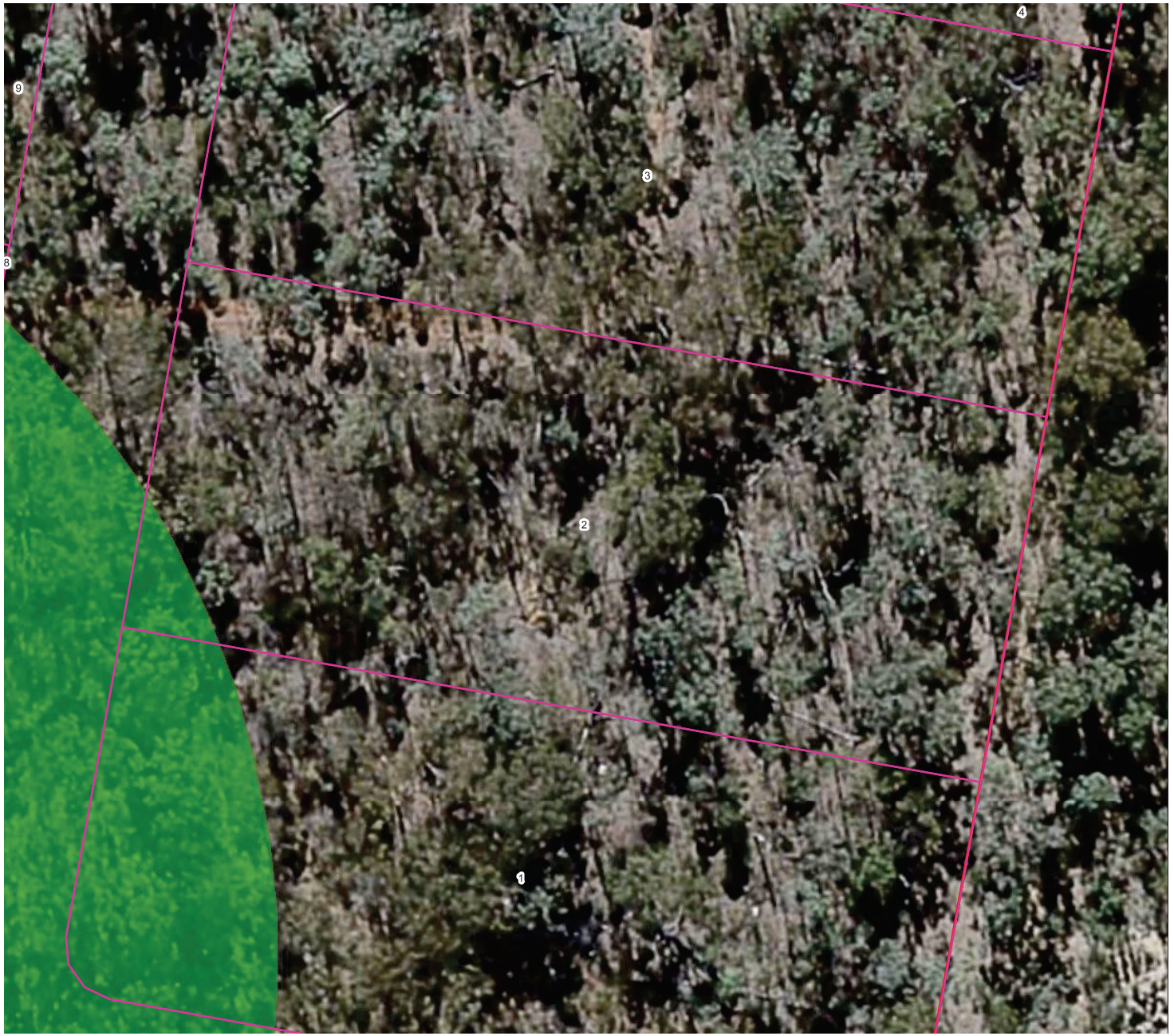
0 5 10 20
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 2**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

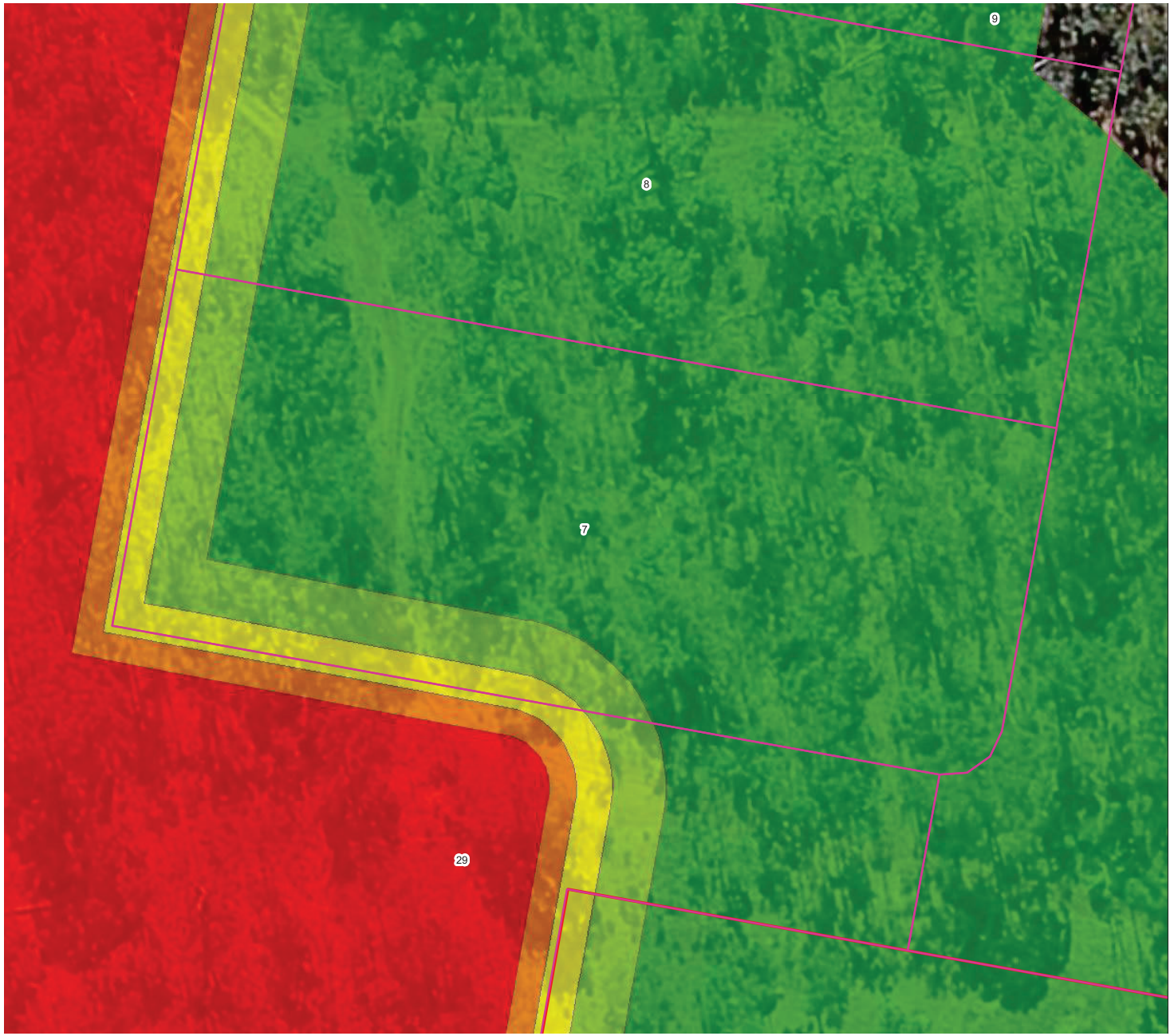
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Coordinate System: GDA 1994 MGA Zone 55

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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 7**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

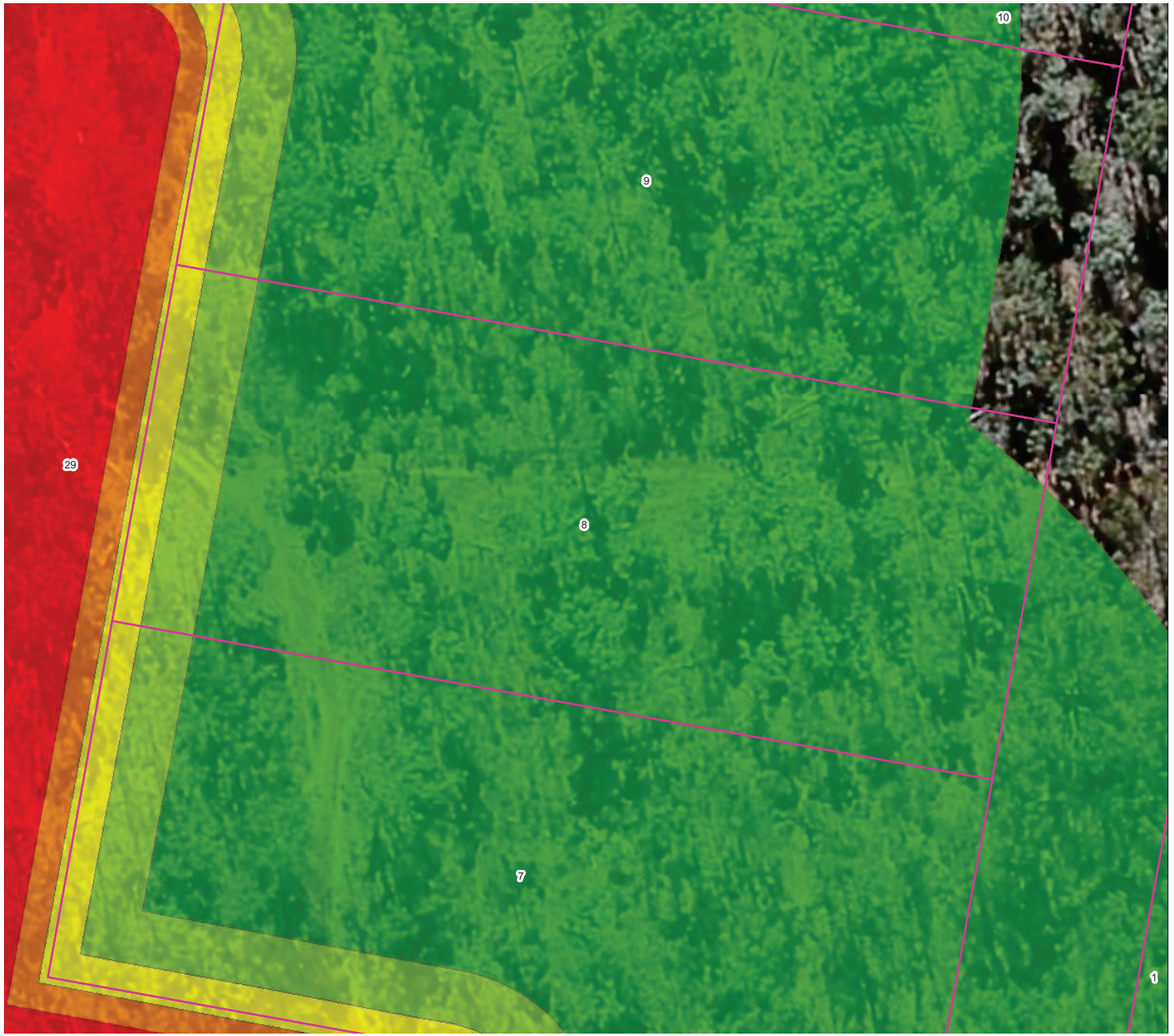
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 8**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

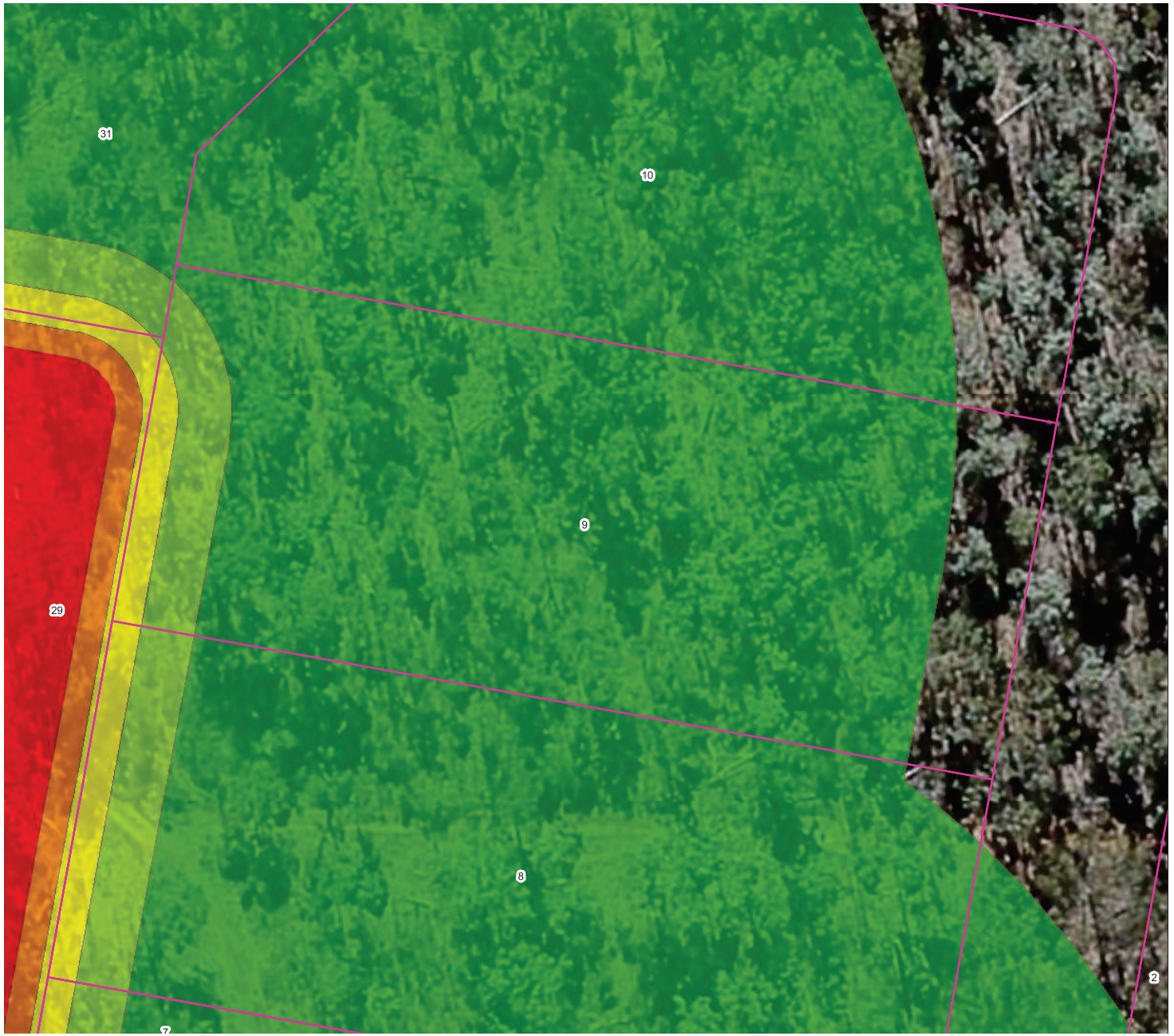
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 9**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

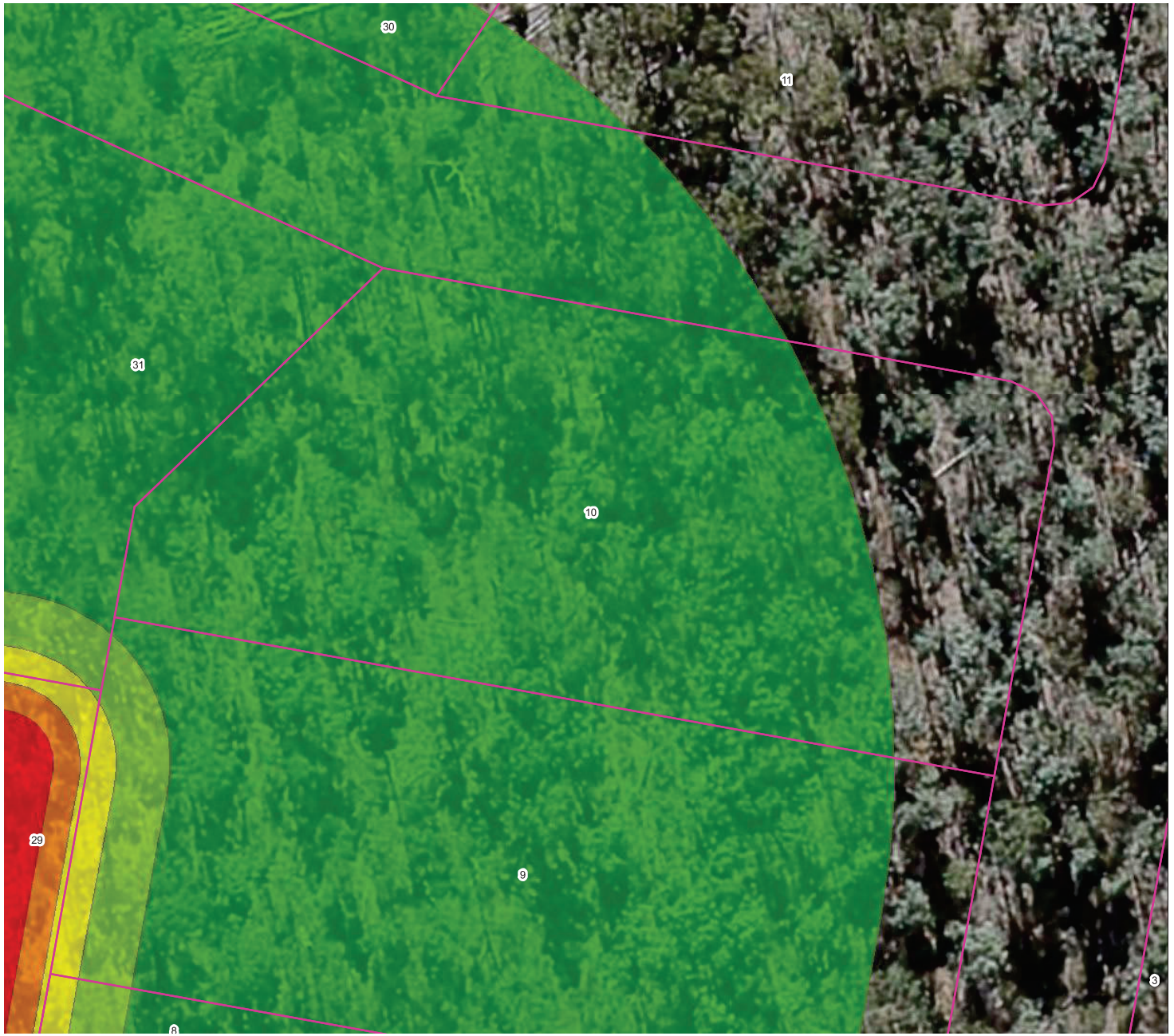
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 10**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

0 5 10 20

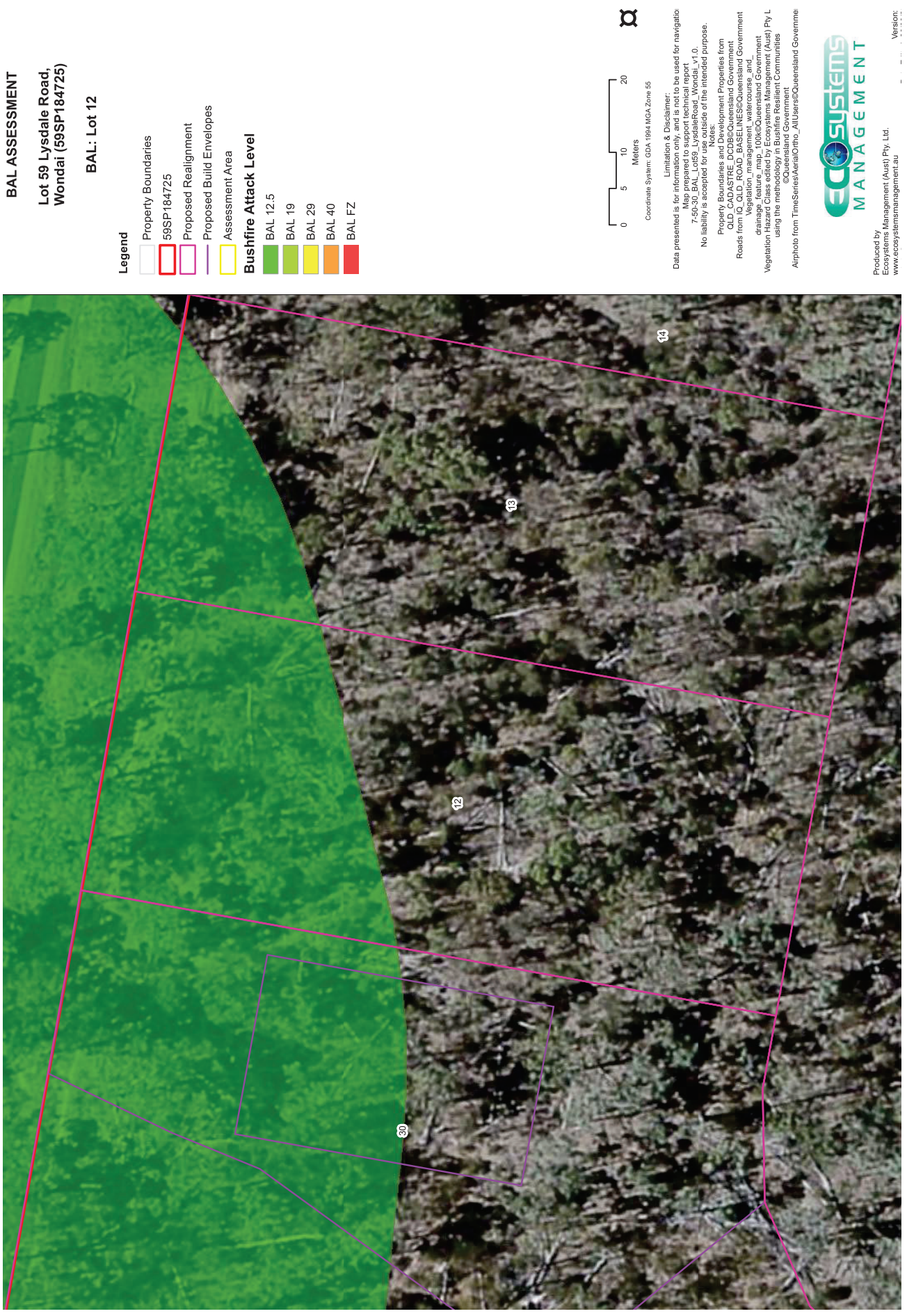
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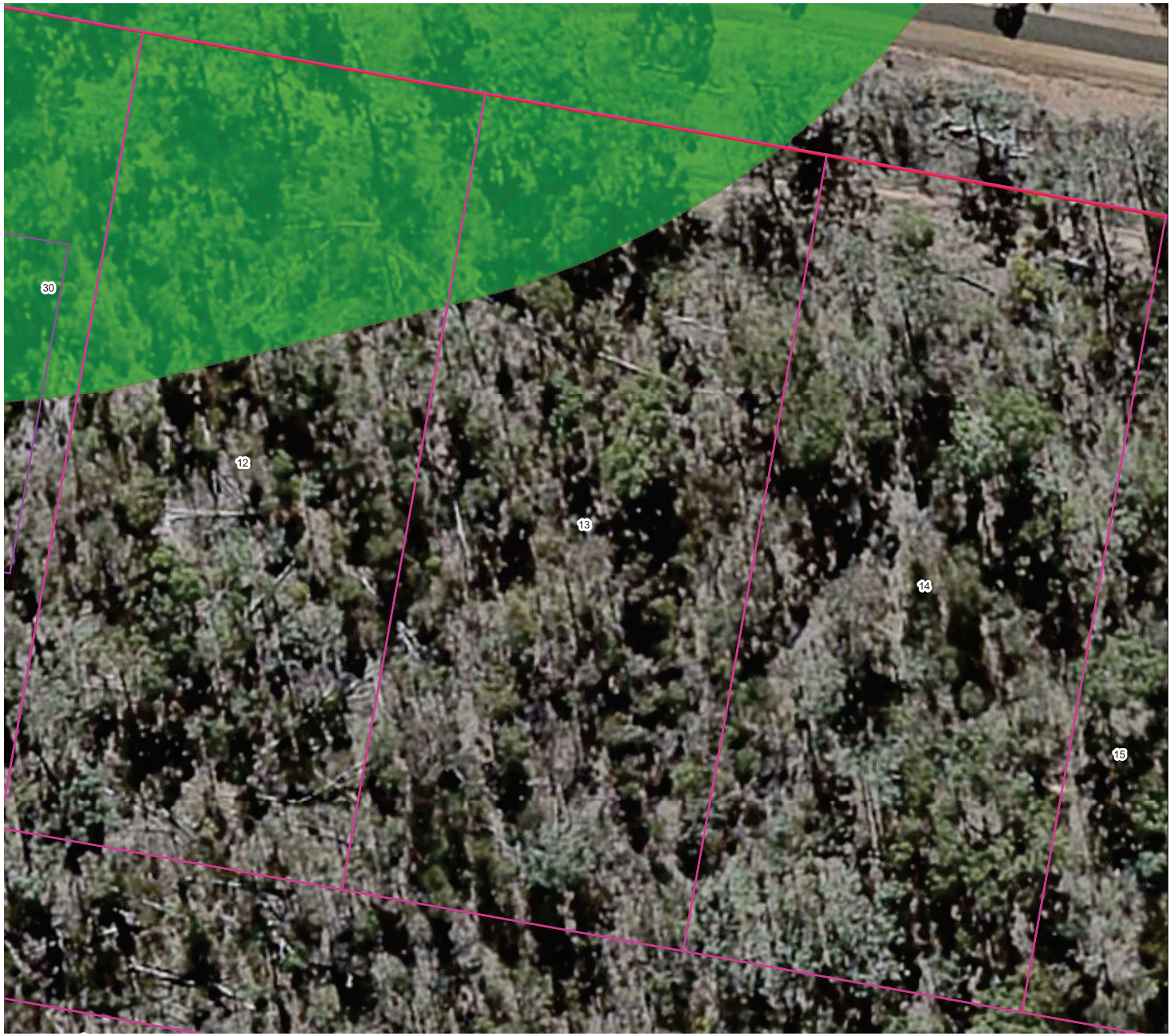
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL: Lot 12
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
0 5 10 20
Meters
Coordinate System: GDA 1994 MGA Zone 55
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12
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 13**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

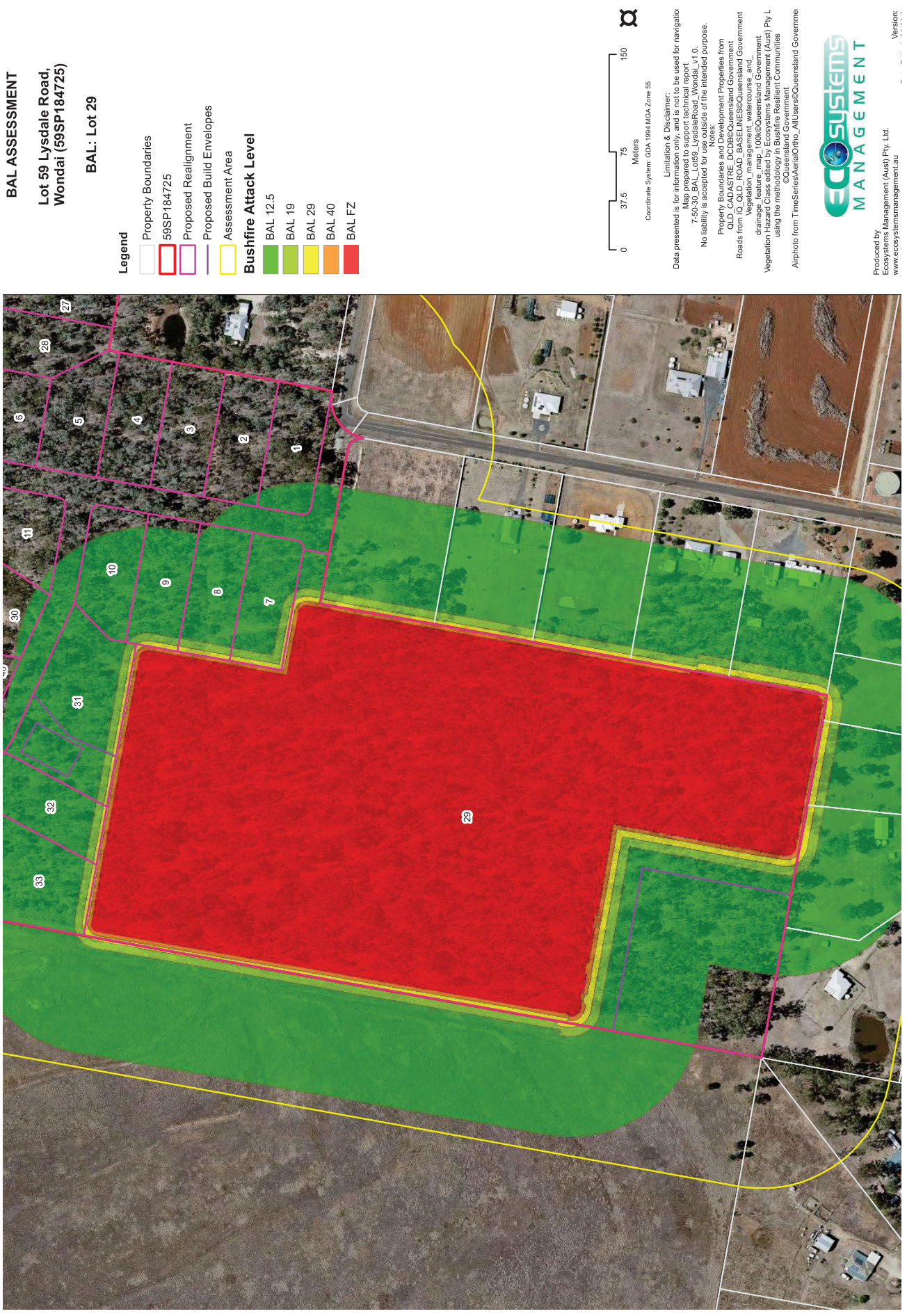
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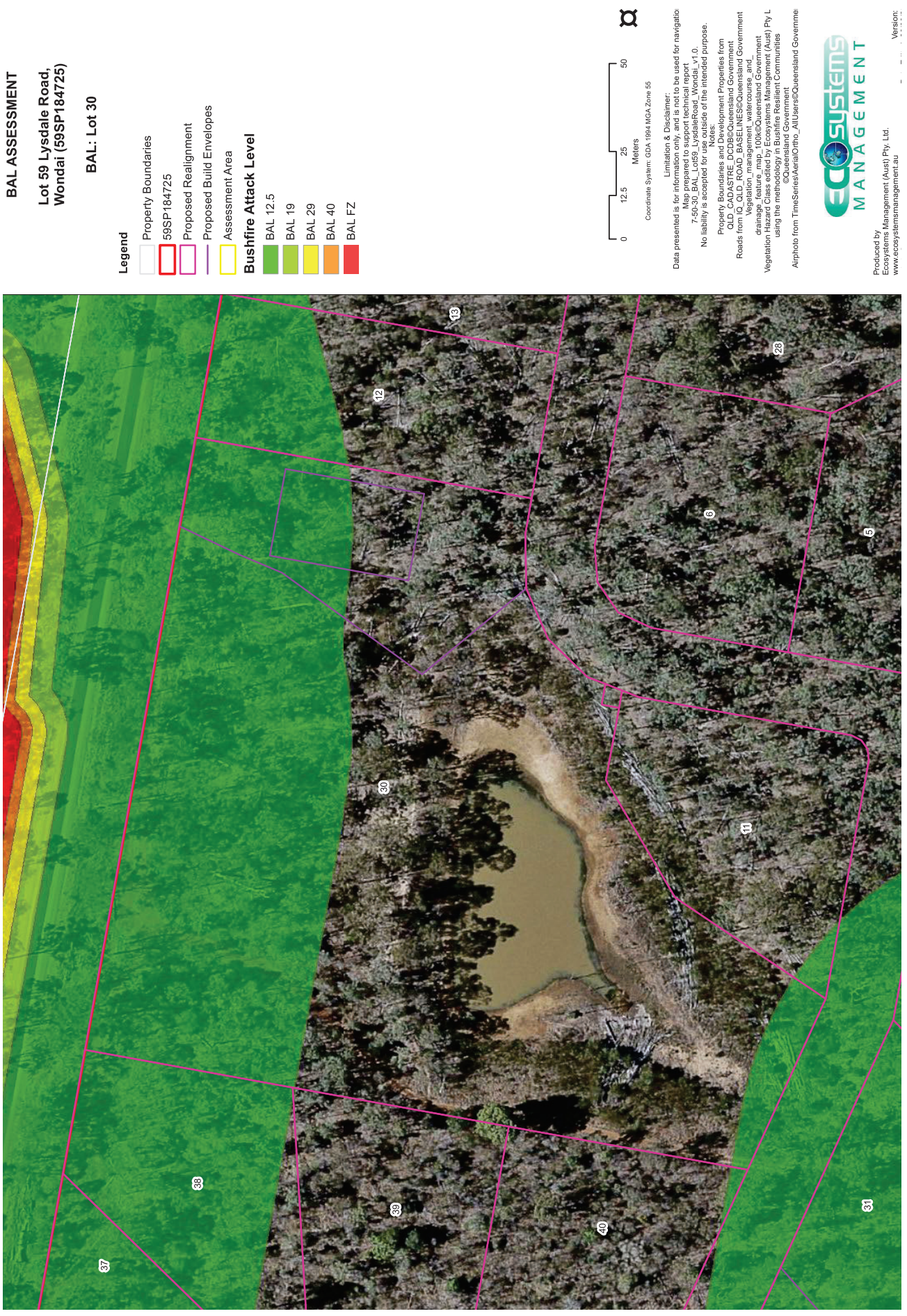
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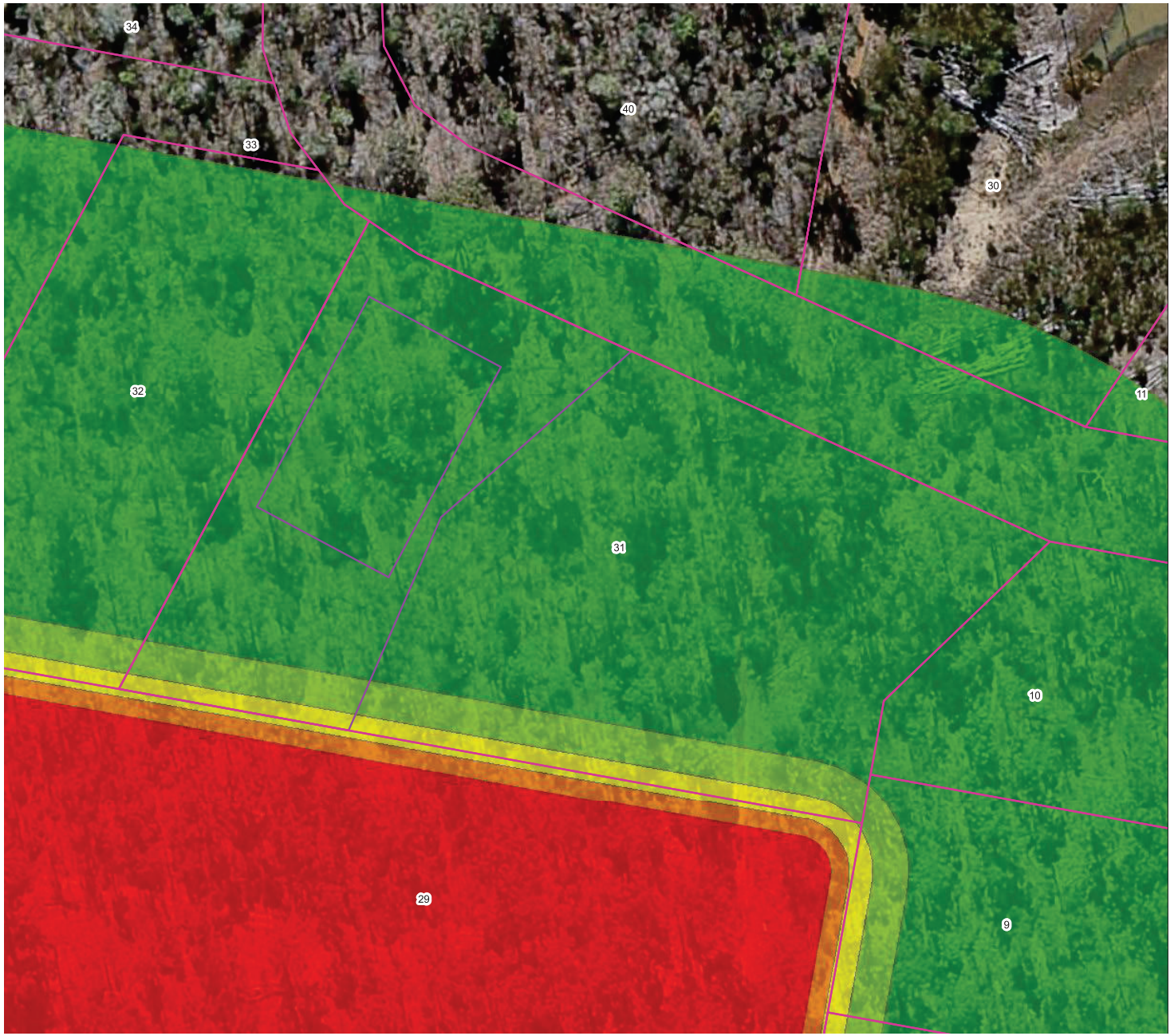
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL: Lot 29
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
0 37.5 75 150
Meters
Coordinate System: GDA 1994 MGA Zone 55
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL: Lot 30
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
0 12.5 25 50
Meters
Coordinate System: GDA 1994 MGA Zone 55
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 31**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

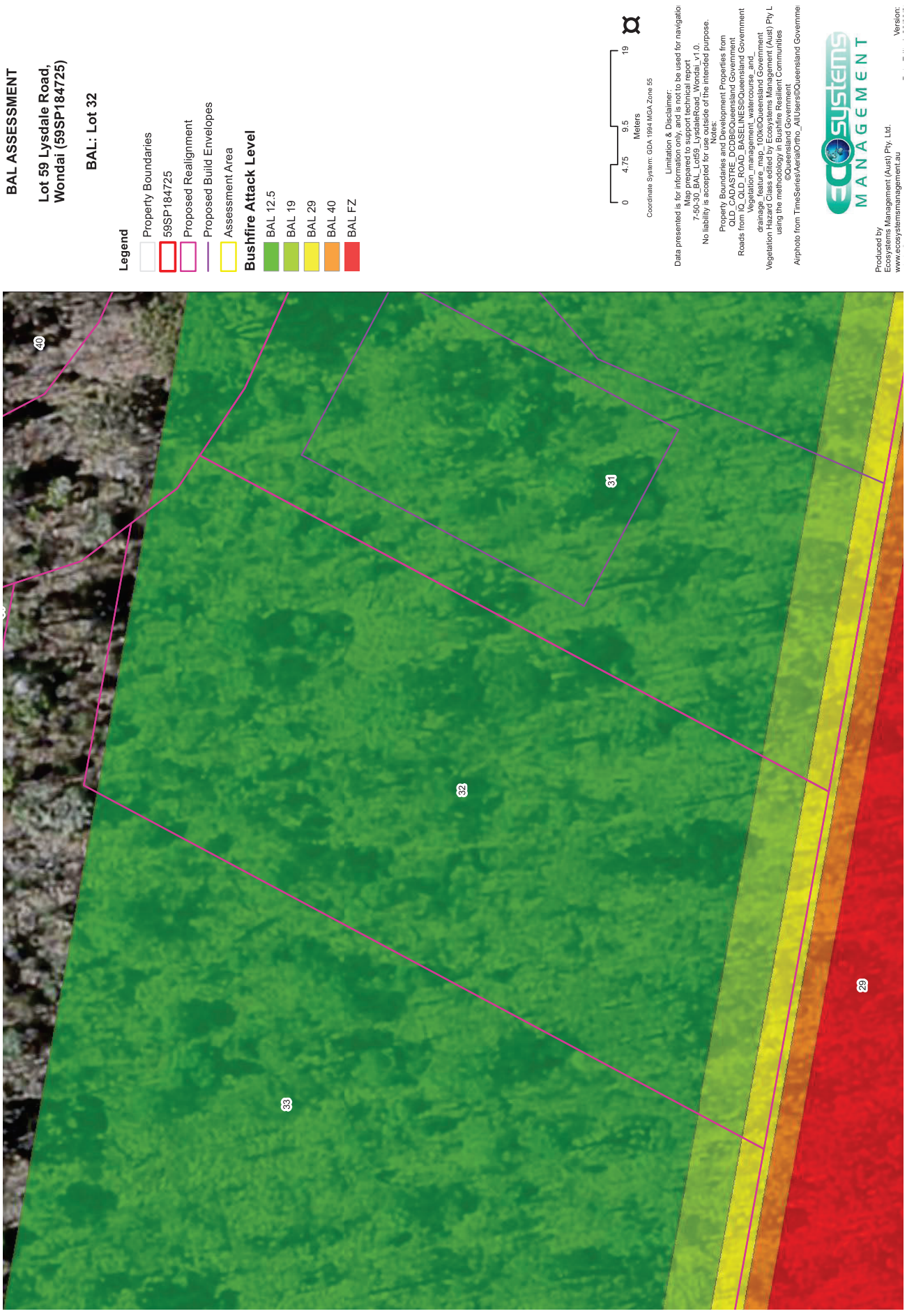
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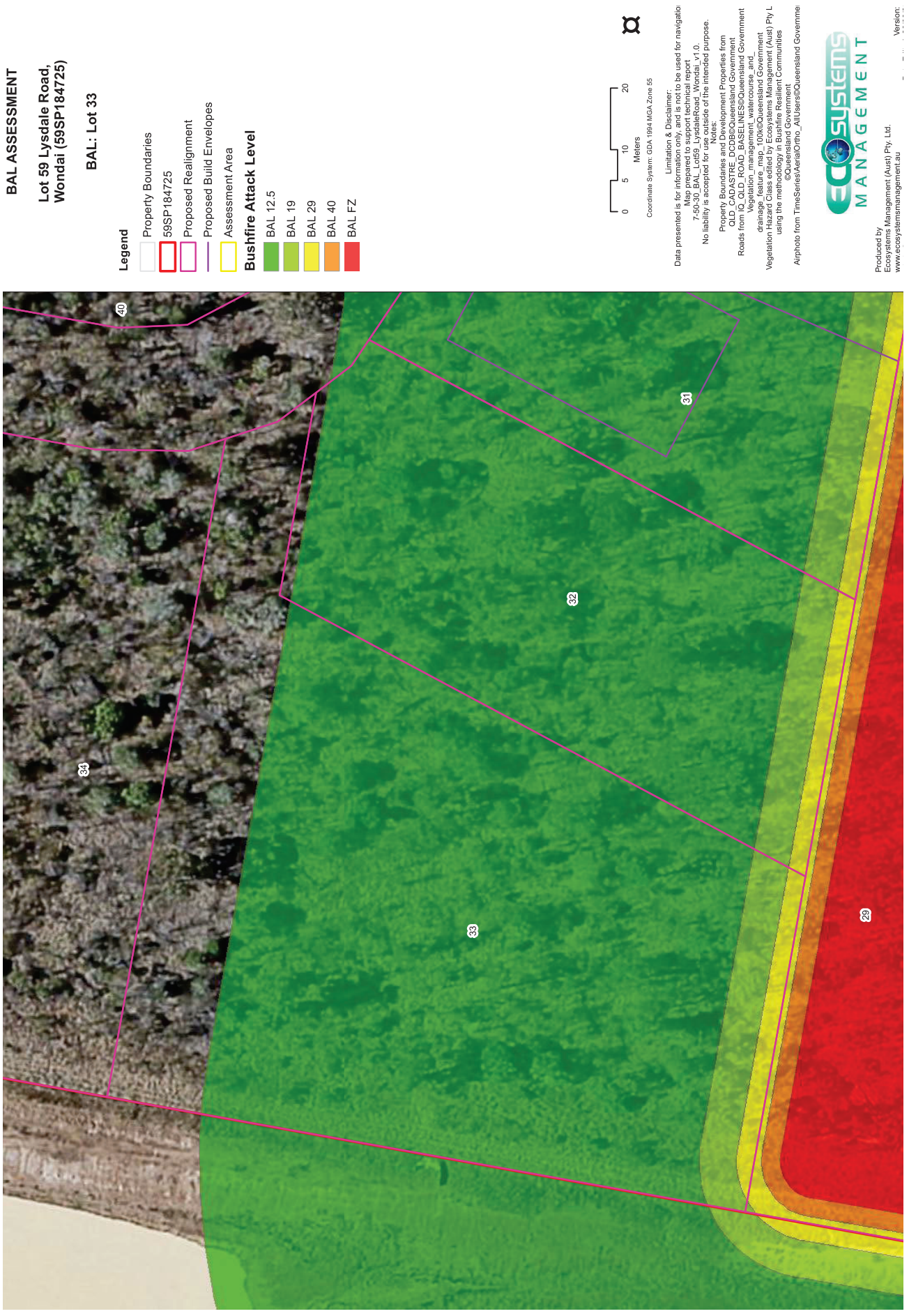
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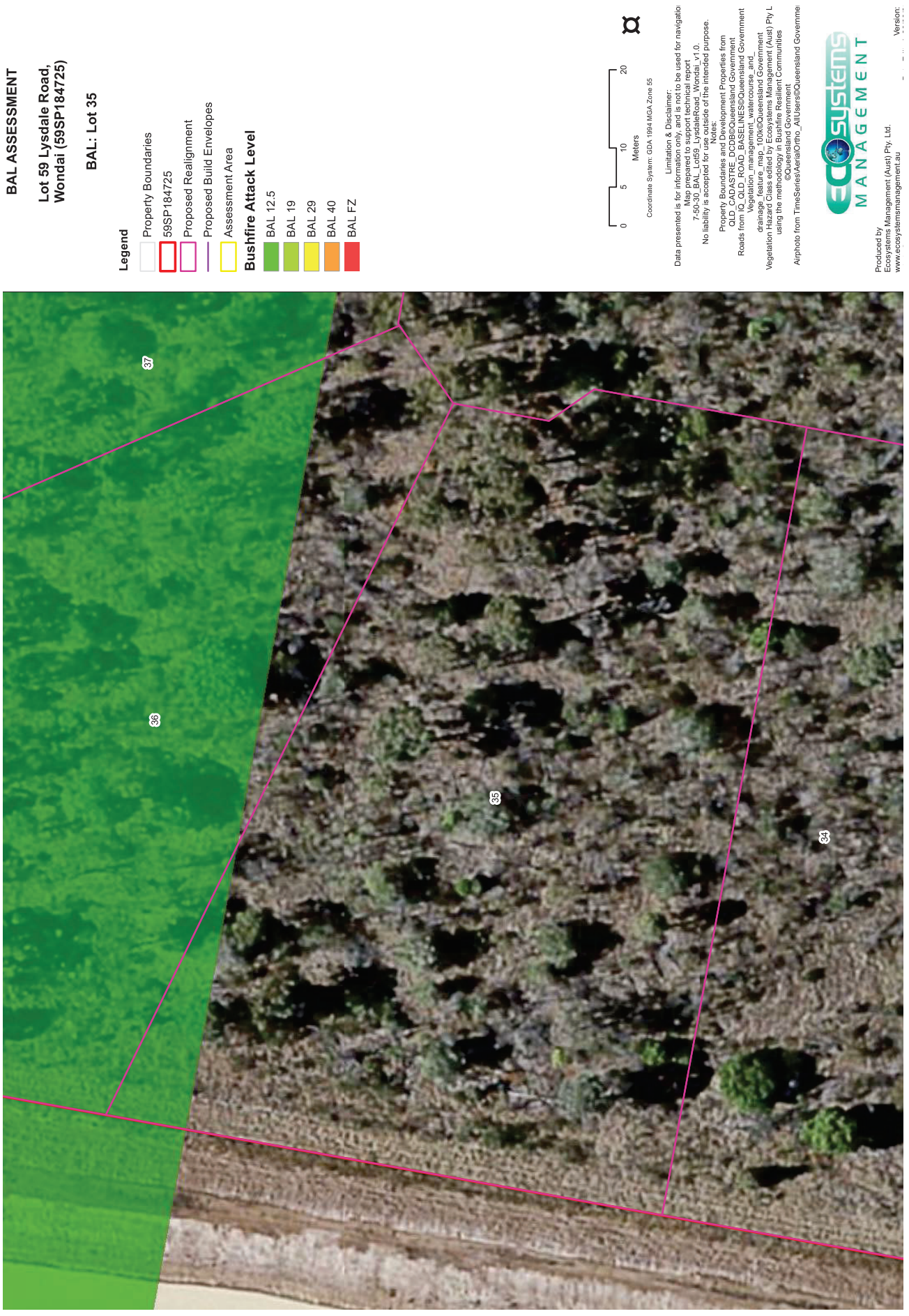
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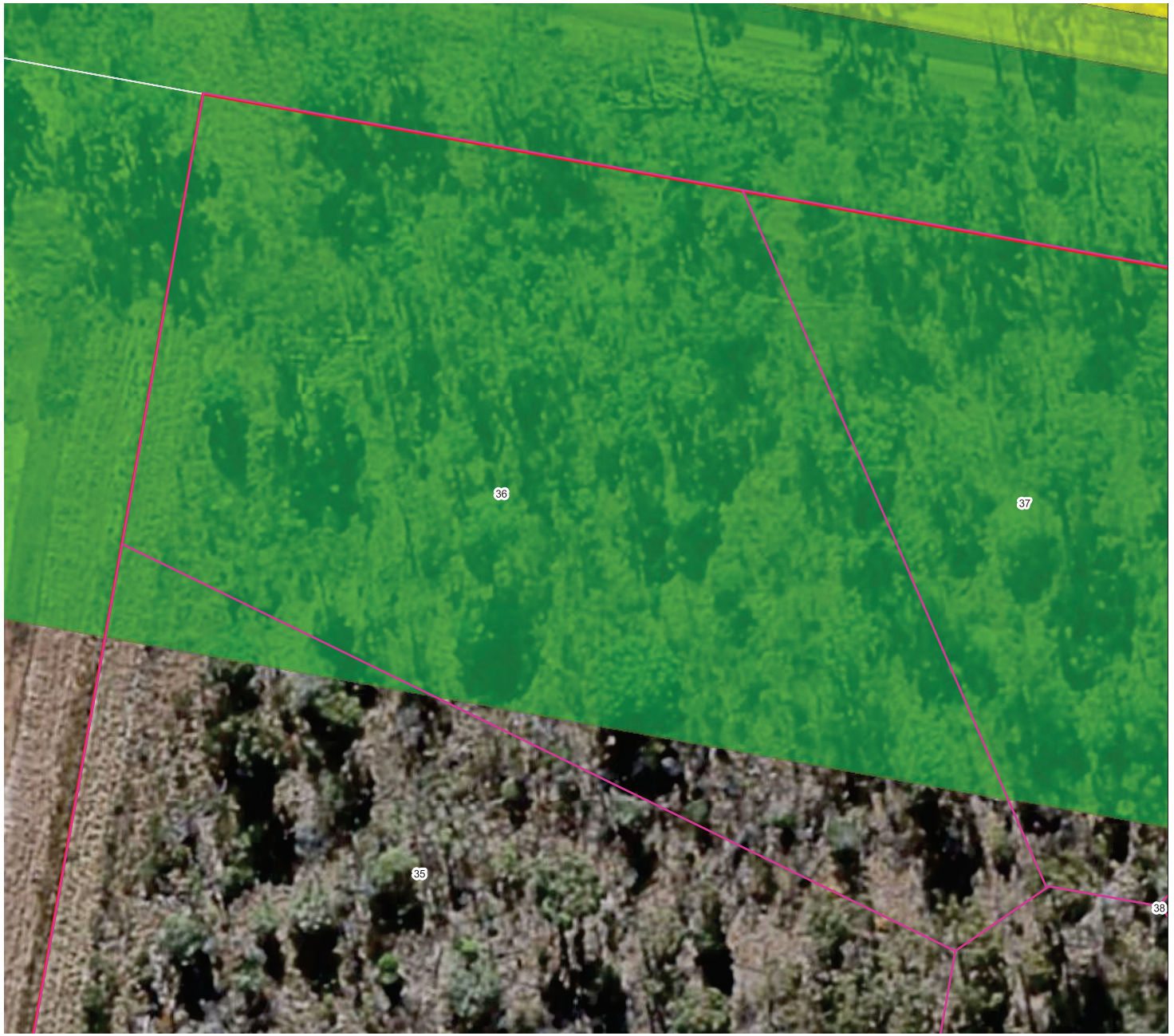
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL: Lot 32
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
0 4.75 9.5 19
Meters
Coordinate System: GDA 1994 MGA Zone 55
Limitation & Disclaimer:
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Version:
40
31
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL: Lot 33
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
0 5 10 20
Meters
Coordinate System: GDA 1994 MGA Zone 55
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Map prepared to support technical report
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BAL ASSESSMENT
Lot 59 Lysdale Road, Wondai (59SP184725)
BAL: Lot 35
Legend
Property Boundaries
59SP184725
Proposed Realignment
Proposed Build Envelopes
Assessment Area
Bushfire Attack Level
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL FZ
0 5 10 20
Meters
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 36**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

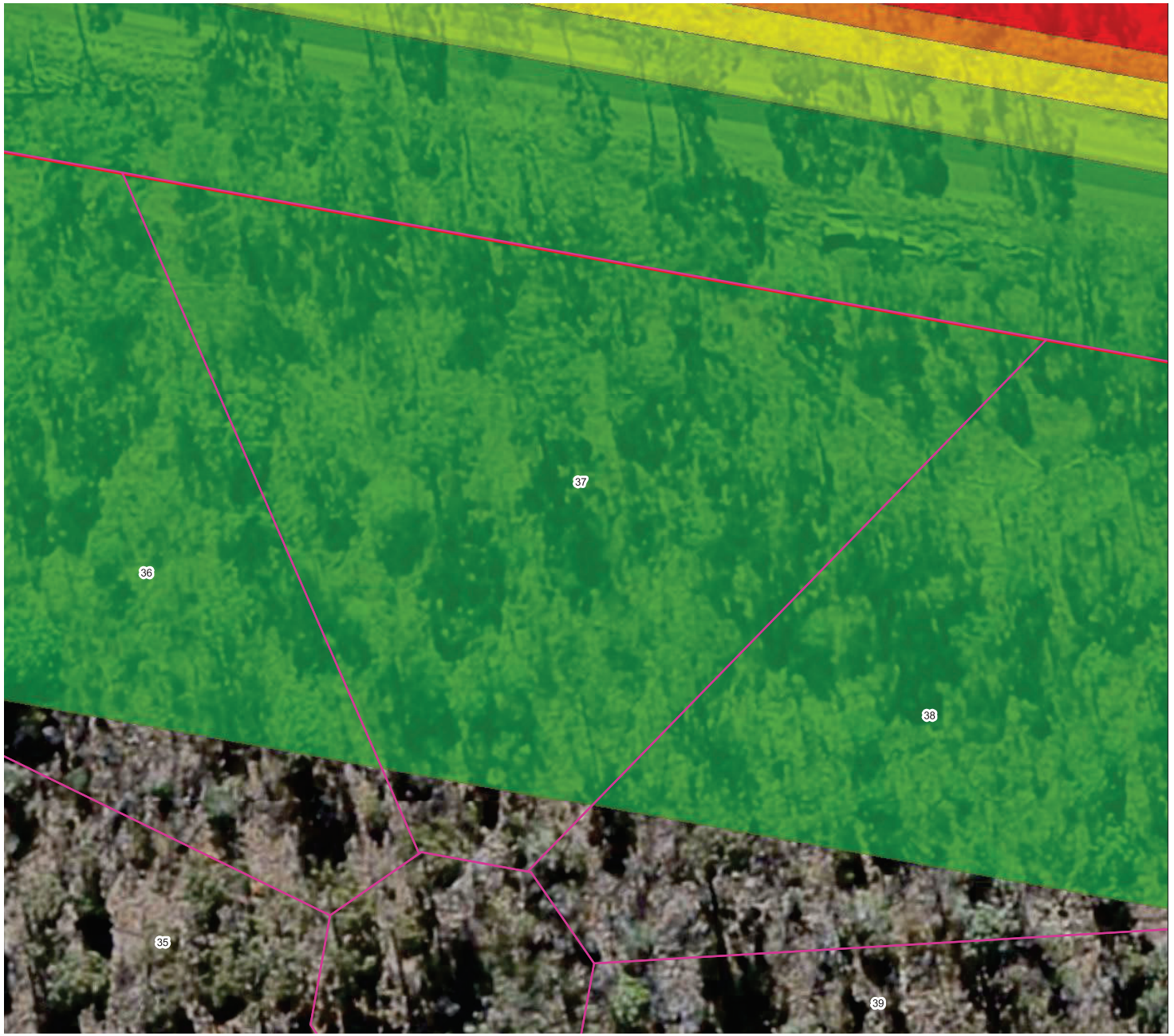
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 37**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

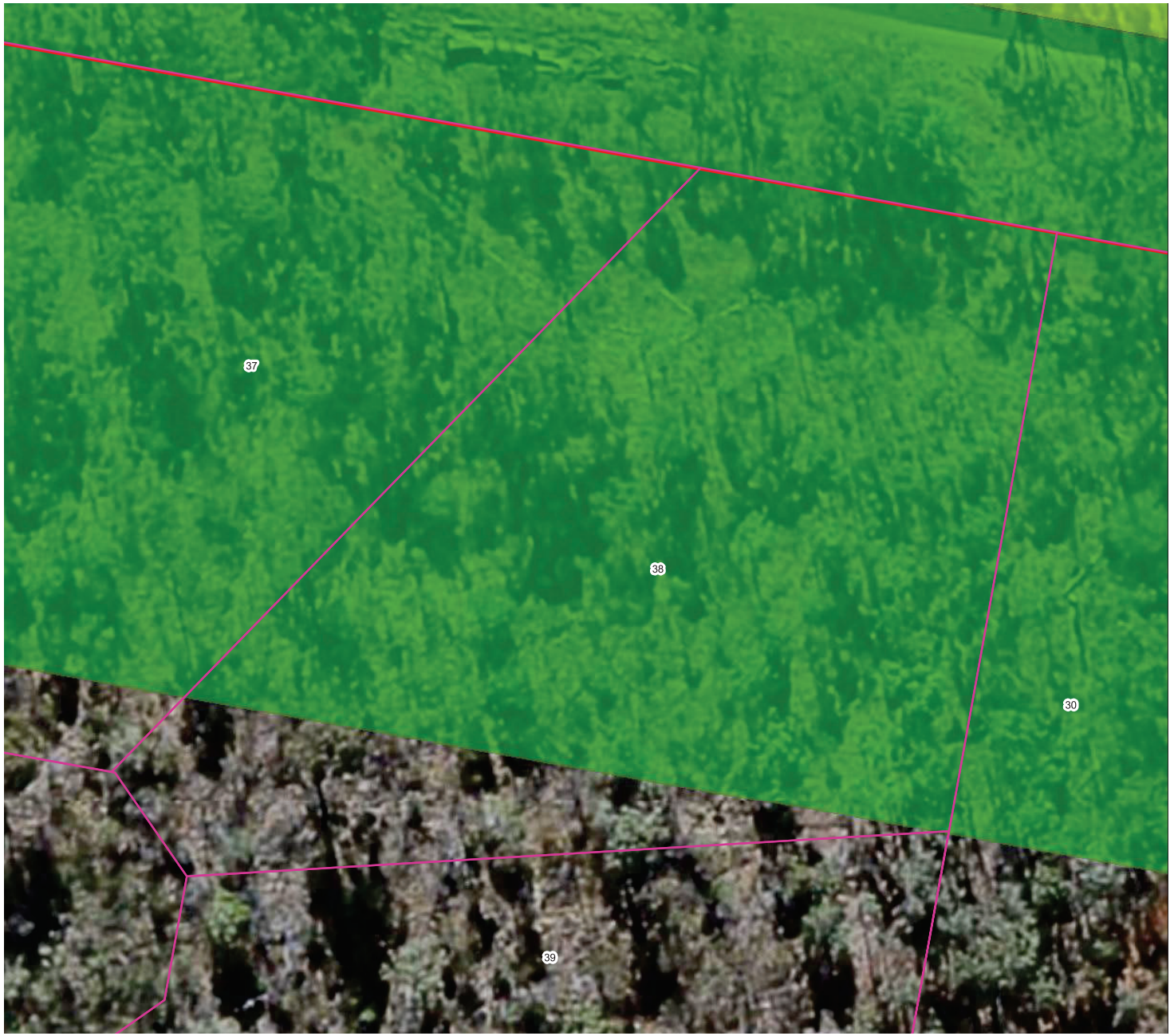
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**BAL ASSESSMENT**

**Lot 59 Lysdale Road, Wondai (59SP184725)**

**BAL: Lot 38**

**Legend**

- Property Boundaries
- 59SP184725
- Proposed Realignment
- Proposed Build Envelopes
- Assessment Area

**Bushfire Attack Level**

- BAL 12.5
- BAL 19
- BAL 29
- BAL 40
- BAL FZ

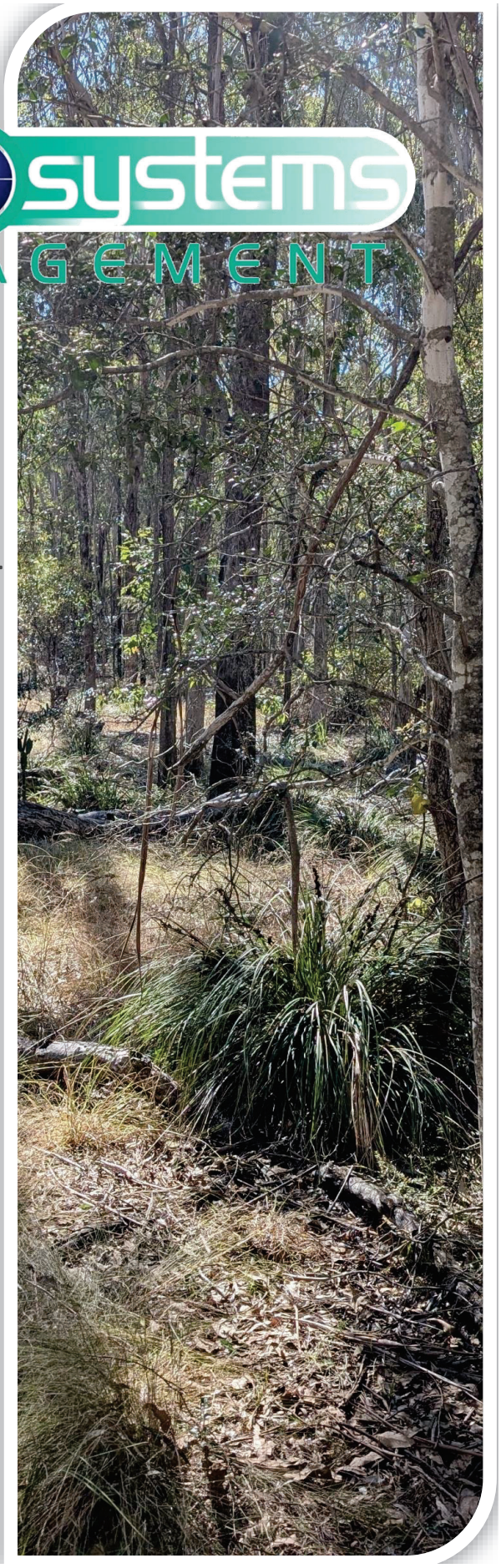
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# BAL ASSESSMENT REPORT

**LOT 59 LYSDALE ROAD,**
**WONDAI**
**(59SP184725)**

**TECHNICAL REPORT 7-50-30_1**

*Technological Solutions for Sustainable Natural Resource Management*

BAL ASSESSMENT REPORT – Lot 59 Lysdale Road, Wondai (59SP184725)

Ecosystems Management (Aust) Pty Ltd
ACN: 665 541 953
38 Darling Road
Jensen
QLD 4818

**STATEMENT OF QUALIFICATION**

This BAL Assessment Report has been prepared by Marcia Griebenow. I have over 15 years' experience in bushfire management and environmental management, practicing in Victoria, New South Wales and Queensland. I have a Bachelor of Environmental Science (Management) from Charles Sturt University, and the Postgraduate Diploma in Bushfire Protection from the University of Western Sydney.
I am suitably qualified and experienced to undertake a BAL Assessment and prepare recommendations for construction requirements in bushfire prone areas.



**Marcia Griebenow** BEnvSc GradDip (Bushfire Protection) MEIANZ

**LIMITATION AND DISCLAIMER.**

This report has been prepared by Ecosystems Management (Aust) Pty Ltd (EMA) with all reasonable skill, care and diligence. This report is for the exclusive use of **Cameron Ansell** or their agent. It is the responsibility of the client to implement this plan, and its associated recommendations. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from EMA. EMA accepts no responsibility to any party in respect of any matters outside the agreed scope of the work, and accepts no liability for implementation of recommended management actions using management plans prepared by other parties.

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# 1. INTRODUCTION

Ecosystems Management (Aust) Pty Ltd (EMA) has been engaged to undertake a BAL Assessment and provide construction requirements for all new lots to be implemented in the development of Lot 59 Lysdale Road, Wondai (59SP184725), in preparation for construction planning regarding class 1 structures. This BAL assessment has considered the landscape within 100m of the development area.

The development is supported by a Bushfire Management Plan prepared by EMA in December 2025 (Ref: 7-50-30), due to the site being within the bushfire prone land overlay of the South Burnett Regional Council planning scheme. The work by EMA provided a post development bushfire hazard model, identifying the remnant vegetation within and around the site that is considered bushfire prone according to state planning policy assessment methodology (QFES, 2019).

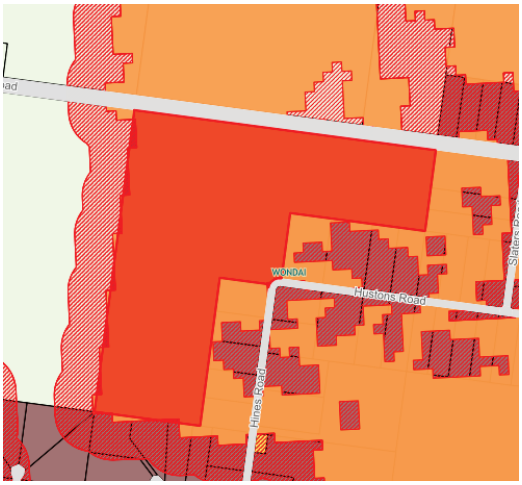



FIGURE 1 BUSHFIRE HAZARD OVERLAY FOR LOT 59 LYSDALE ROAD, WONDAI (SOUTH BURNETT REGIONAL COUNCIL, 2023)

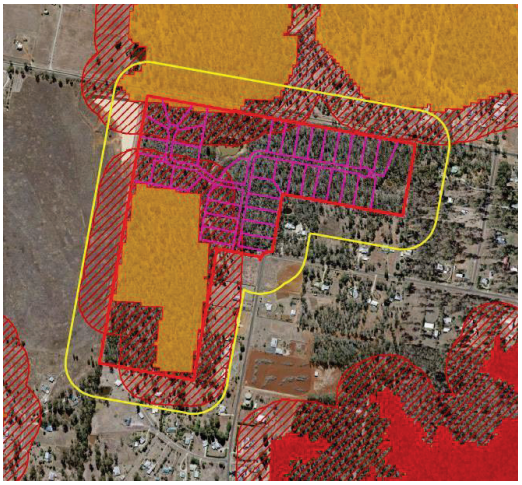


FIGURE 2 BUSHFIRE PRONE LAND MODEL FOR DEVELOPMENT SCENARIO (EMA, 2025).

The site location is detailed in both the Site Location and the BAL Assessment maps in Appendix A; with the defining boundaries of the new lots provided by Stuart Nicholson in Lysdale Estate – Proposal Plans, draft rev 1, 13/08/2025.

The requirements for construction of buildings in bushfire prone areas are specified in AS3959 (Construction of buildings in bushfire-prone areas (SAL, 2011)). The construction standards identified in the standard are aimed at achieving resilience against the mechanisms of bushfire attack, relevant to the specific site, to provide a place of refuge during the passage of a fire front, enabling occupants to then actively protect the building from the residual impact from the passage of a bushfire front.

The Bushfire Attack Levels and description of predicted bushfire attack is described in Table 1.

TABLE 1 BAL AND DESCRIPTION OF LEVELS OF EXPOSURE (FROM AS3959-2018, (SAL, 2011))

| BAL | Heat flux exposure thresholds | Description of predicted bushfire attack and levels of exposure |
|---|---|---|
| BAL – 12.5 | ≤ 12.5 kW/m$^2$ | Ember Attack |
| BAL - 19 | > 12.5 kW/m$^2$<br>≤ 19 kW/m$^2$ | Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux. |
| BAL – 29 | >19 kW/m$^2$<br>≤ 29 kW/m$^2$ | Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux. |
| BAL – 40 | >29 kW/m$^2$<br>≤ 40 kW/m$^2$ | Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames. |
| BAL - FZ | > 40 kW/m$^2$ | Direct exposure to flames from fire front in addition to heat flux and ember attack. |

### 1.1. BAL ASSESSMENT METHODOLOGY

The BAL Assessment methodology uses quantified factors contributing to bushfire behaviour to apply a classification of bushfire behaviour to a defined location (such as a house site or property boundary). The assessment considers vegetation and slope within a 100m radius from the subject site.

Factors considered in the assessment of the BAL include:

- Identification of FFDI (Forest Fire Danger Index),
- Vegetation Classification
- Configuration of the site in relation to bushfire prone vegetation,
- Effective slope under bushfire prone vegetation,

The determined BAL is then used to identify the appropriate construction requirements.

# 2. SITE ASSESSMENT

### 2.1. SITE DESCRIPTION

The subject site is located 2.3km north west of Wondai town centre, and 25.6km north of Kingaroy. The subject site is currently comprised of a single Lot totalling 37.12ha, located on the north western extent of the Wondai township, in a rural residential zoned area bordering rural agricultural land parcels. The subject site is accessed from the junction of Hines Road and Hustons Road, with close connection to the Bunya Highway as the main transport link for the area (see Site Location Map in Appendix A).

To the west the subject site is bordered by a large rural agricultural land parcel, featuring a large dam adjacent to the north west of the site, low bushfire fuels, and a high degree of management. To the south and east the subject site is adjacent to a number of rural residential land parcels, all of which feature established residential development, and are maintained to a high degree, with very low bushfire fuels present across the majority of their area. The Lysdale Road reserve bounds the site to the north, providing a de facto fire break absent of bushfire fuels. Beyond Lysdale road to the north is a large rural land parcel featuring semi-natural vegetation. This vegetation has an intact overstory of mature trees, with the southern section of this site having a moderate degree of management that has reduced the surface, near surface, and elevated fuels present, and with the south eastern section of the site being managed to a very high degree around the developed use of the site.

Within the broader landscape there is a general divide in bushfire fuels present locally to the east and west of the Bunya Highway. West of the Bunya Highway (where the subject site is located) is dominated by agricultural land use, with a mixture of crop growing and grazing within well managed land parcels, and low bushfire fuels present. To the east of the Bunya Highway (and to the south and east of the Wondai township) are the McEuen State Forest and Wondai State Forest, connecting to the Cherbourg National Park and Cherbourg Conservation Park, with some additional connection to additional natural vegetation on private land to the north.

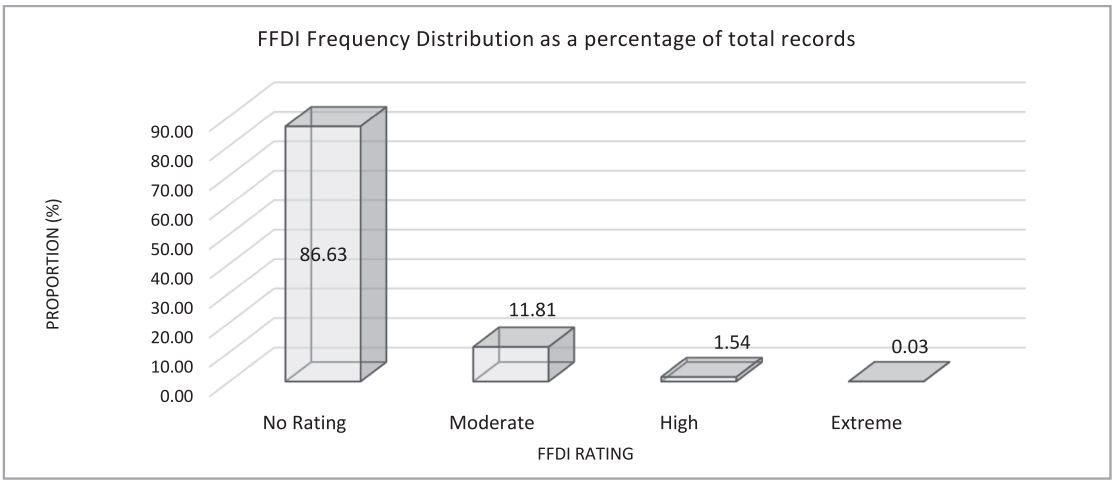
The proposal is for the Reconfiguration of a Lot under the requirements of the South Burnett Regional Council Planning Scheme to allow for subdivision of the site into 40 rural residential lots.

## 2.2. FIRE WEATHER AND FDI

The nearest Bureau of Meteorology weather station is Kingaroy Airport (replacing Kingaroy Prince Street in 2001) (Station number 040922, located at Kingaroy Airport (BOM, 2025 The site is within the subtropical region of south eastern Queensland. This area is characterised by cool winters and warm summers. Increased rainfall typically occurs from October to March. The fire season is usually recognised as the period from June, until the commencement of summer rainfall (which may be variable).

Mean maximum temperatures occur in January (30.9 °C), and mean minimum temperatures occur in July (3.9 °C). The climate can generally be classified as having moderate humidity, with the minimum humidity occurring in October with a mean 3pm relative humidity of 33%, and maximum humidity occurring in February with a mean 3pm humidity in February at 52%. The predominant winds throughout the year are from the east and south east. These winds are moist, rather than dry, and therefore have a lesser drying effect on fine fuels in the region. Occasionally dry winds come from the west (as well as the north west and south west), however, these are less common and typically do not persist for more than a couple days at a time. Wind strength is highest during late winter and early spring with gusting winds occurring from variable prevailing wind direction, increasing the rate at which fine fuels may dry.

AS3959-2018 identifies an applicable FDI of 40 for Queensland, which falls into the classification of Very High fire danger. It is noted that tropical climates exhibit different fire behaviour and fire weather characteristics to southern parts of Australia, with less frequent occurrences of extreme fire weather conditions. Subsequently, a review of historical fire weather data (Lucas, 2009) shows that while Very High (FDI 25 < 49) and Extreme (FDI 50 < 74) fire weather does occur in the Townsville area, these are infrequent and not prolonged occurrences (Graph 1 shows frequency distribution of FFDI over 43 years of records). There are no records of fire weather reaching the classification of 'Catastrophic' or an FDI exceeding 100, which is experienced more frequently in southern parts of Australia and is correlated with the occurrence of significant bushfire events in the southern states. This observation is supported by research undertaken by Tropical Savannas CRC (2001), for various locations across northern Australia including Rockhampton (QLD) and Katherine (NT), which both have similar annual rainfall to Townsville.




GRAPH 1 FFDI FREQUENCY DISTRIBUTION

## 2.3. TOPOGRAPHY

The subject site is located within an area of generally flat land to the north east of the Wondai township, with the local area is defined as being located within the South Burnett biogeographic subregion. The subject site (and the Wondai township) occurs on an area of flat plains, with a horseshoe of increased slope surrounding to the west, south, and east. This area of slope has low localised peaks, but forms a broad area of variable slope, rather than a typical range. The closest area of increased, variable slope occurs 3.8km to the east of the subject site.

The subject site itself is close to flat uniformly across the majority of its area, with very low consistent slope rising to the south. There are very localised areas of steep slope associated with the dam earthworks present on and adjacent to the site, with no other areas of increased slope present.

Outside of anthropogenic features, slope across the site varies between 1 and 4 degrees.

## 2.4. VEGETATION AND BUSHFIRE FUELS

Bushfire behaviour is primarily dictated by the availability and arrangement of fine fuels (<6mm diameter), which contribute mostly to the rate of spread and flame height. The Overall Fuel Hazard Assessment Guide (DSE, 2010) is widely accepted as a primary resource for assessing fuel hazard in terms of fuel arrangement and distribution. Fuel is classified by its vertical structure and horizontal distribution (see Figure 3). AS3959 provides a classification scheme for vegetation, based on a national classification scheme developed by R. Specht. The methodology in the standard does not allow for deviation from this classification scheme based on variations embodied in other state specific vegetation classification schemes, nor does it allow for adjustment of fuel loads in calculations based on locally derived or site-specific fuel hazard measurements.

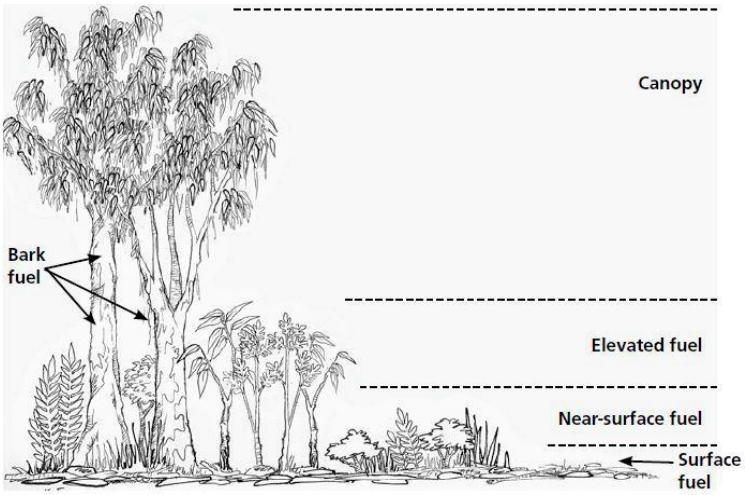



FIGURE 3 FINE FUEL CLASSIFICATION (DSE, 2010)

The vegetation classification system of AS3959 draws a distinction between Forest and Woodland, primarily based on percentage foliage cover; less than 30% foliage cover is considered woodland, greater than 30% foliage cover is considered forest, with the fire behaviour characteristic of potential for crown fire as the principal factor in this distinction. Low Woodland with some shrubs is considered to be Woodland for the purposed of BAL Assessment. Open woodland with foliage cover less than 10% is considered as grassland for the purposes of BAL Assessment vegetation classification.

The extent of classified woodland and forest vegetation types is considered to be the edge of unmanaged understory, rather than the canopy dripline or trunk of trees constituting this classification, which can be related back to the fine fuel contribution to rate of spread and flame height.

In addition to the vegetation classification in AS3959, the National Construction Code contains a variation peculiar to Queensland. Part 3.10.5 (Construction in bushfire prone areas) in Queensland states:

> 1) Subject to (b), *Performance Requirement* P2.7.5 is satisfied for—
>
> a) a Class 1 building; or
>
> b) a Class 10a building or deck associated with a Class 1 building,
>
> located in a *designated bushfire prone area* if it is constructed in accordance with—
>
> a) AS 3959; or
>
> b) NASH Standard – Steel Framed Construction in Bushfire Areas.
>
> 2) The requirements of (a) do not apply when, **in accordance with AS 3959, the classified vegetation is Group F rainforest (excluding wet sclerophyll forest types), mangrove communities and grasslands under 300 mm high**.
>
> *National Construction Code 2019, Volume 2, Amendment 1*

The development plan anticipates that only minimal earthworks will be required for the proposed lots, retaining vegetative overstory and mature trees consistent with the expectations of rural residential amenity, with management of understory bushfire fuels.

The proposed development will be serviced by a reticulated water supply connecting to South Burnett Regional Council's existing water reticulation network.



FIGURE 4 VIEW SOUTH ALONG THE HINES ROAD RESERVE



FIGURE 5 VIEW EAST ALONG THE LYSDALE ROAD RESERVE



FIGURE 6 VIEW WEST INTO RURAL AGRICULTURAL PARCEL WITH LOW BUSHFIRE FUELS



FIGURE 7 VIEW OF WOODLAND VEGETATION PRESENT ALONG THE CREEK LINE IN THE NORTH WEST SECTION OF THE SITE



FIGURE 8 VIEW NORTH INTO TYPICAL VHC9.2 WOODLAND VEGETATION STRUCTURE FOR THE SITE



FIGURE 9 VIEW EAST INTO WOODLAND VEGETATION IN THE SOUTHERN SECTION OF THE SITE WITH GRASSY GROUNDCOVER

# 3. BAL ASSESSMENT PARAMETERS

The simplified procedure (Method 1) for BAL assessment is fully described in Section 2.2 of AS3959. It utilises a number of quantitative factors, based on site characteristics.

## 3.1. FIRE DANGER INDEX

The Fire Danger Index (FDI) identified for Queensland is 40 (Table 2.1 of AS3959).

## 3.2. VEGETATION CLASSIFICATION

Vegetation within 100m of the subject site shall be classified in accordance with Table 2.3 and Figures 2.4(A) to 2.4(G) of AS3959. Where there is more than one vegetation type, each type shall be classified and assessed separately. The bushfire attack level will be determined to be BAL-LOW where vegetation is a low threat.

## 3.3. DISTANCE FROM CLASSIFIED VEGETATION

The distance to classified vegetation is taken in the horizontal plane; to the nearest external wall of the proposed building, or for parts that do not have filled walls (i.e. carport or verandah), to the supporting structure.

### 3.4. EFFECTIVE SLOPE

The effective slope is taken as the slope of the land underneath the subject bushfire prone vegetation, disregarding the slope of the land between the building and the vegetation.

### 3.5. BUSHFIRE ATTACK LEVEL

BAL is based on the distance from classified vegetation and effective slope, Table 2.4.5 from AS3959-2018 will define the BAL appropriate to the site.

## 4. BAL ASSESSMENT – LOT 59 LYSDALE ROAD, WONDAI

### 4.1. FIRE DANGER INDEX

The Fire Danger Index (FDI) identified for Queensland is 40 (Table 2.1 of AS3959).

### 4.2. VEGETATION CLASSIFICATION

There are two vegetation classes assessed for this site, shown in the attached map (BAL Assessment):

- Low Fuel Load –Urban/Rural Development
- Waterbodies
- Woodland

### 4.3. DISTANCE FROM CLASSIFIED VEGETATION

The distance between classified vegetation and respective properties or building envelopes will vary, and is shown in the BAL Assessment Map in Appendix 1.

### 4.4. EFFECTIVE SLOPE

| Slope | Lots |
|---|---|
| Flat or Upslope (0 degrees) | 1, 2, 7, 8, 9, 10, 31, 32, 33 |
| Downslope (0 < 5 degrees) | 12, 13, 29, 30, 35, 36, 37, 38, |

### 4.5. BAL LEVEL

The assessed proposed lots within Lot 59 Lysdale Road, Wondai are subject to BAL levels as defined in the overview BAL assessment map and individual lot assessment maps in Appendix 1.

A Bushfire Attack Level only applies to a structure if that structure passes through the coloured BAL buffer area on the BAL Assessment Map (see Appendix 2). If the structure is set back outside of the coloured BAL Buffer, then the building is considered BAL Low and there are no construction requirements under AS3959.

**TABLE 2 BUSHFIRE ATTACK LEVEL RELATING TO EACH LOT**

| Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification |
|---|---|---|---|---|---|---|---|---|
| **1** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the W section of the lot – maximum extent 25m from W boundary. | **14** | BAL Low | | **27** | BAL Low | |
| **2** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the SW section of the lot – maximum extent 15m from SW corner. | **15** | BAL Low | | **28** | BAL Low | |
| **3** | BAL Low | | **16** | BAL Low | | **29** | BAL Low;<br>BAL 12.5;<br>BAL 19;<br>BAL 29;<br>BAL 40;<br>BAL FZ | BAL FZ is present across the majority of the lot, however,<br>the building envelope in the SW section of the lot is only subject to BAL Low and BAL 12.5.<br>BAL 12.5 is present across the majority of the build envelope, with BAL Low present in the SW quarter. |
| **4** | BAL Low | | **17** | BAL Low | | **30** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of both the lot and proposed build envelope, with BAL 12.5 present across their N sections – with the maximum extent of BAL 12.5 in to the proposed build envelope being 44m. |
| **5** | BAL Low | | **18** | BAL Low | | **31** | BAL 12.5;<br>BAL 19;<br>BAL 29 | BAL 12.5 is present across the majority of both the lot and proposed building envelope.<br>BAL 19 and 29 extend into the lot from the S boundary but not into the building envelope. |
| **6** | BAL Low | | **19** | BAL Low | | **32** | BAL Low<br>BAL 12.5;<br>BAL 19;<br>BAL 29 | BAL 12.5 is present across the majority of the lot.<br>BAL Low is only present across a very small area adjacent to the N boundary.<br>BAL 19 and 29 extend into the lot from the S boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19. |

| Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification |
|---|---|---|---|---|---|---|---|---|
| **7** | BAL 12.5; BAL 19; BAL 29 | BAL 12.5 present for the majority of the lot.<br>BAL 19 and BAL 29 extend into the lot from the W boundary and the western half of the S boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19 from the site boundary. | **20** | BAL Low | | **33** | BAL Low<br>BAL 12.5; BAL 19; BAL 29 | BAL 12.5 is present across the majority of the lot.<br>BAL Low is present in an area adjacent to the N boundary of the lot – maximum extent 14m from the N boundary.<br>BAL 19 and 29 extend into the lot from the S boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19. |
| **8** | BAL Low<br>BAL 12.5; BAL 19; BAL 29 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in a small area of the NE comer only.<br>BAL 19 and BAL 29 extend into the lot from the W boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19 from the site boundary. | **21** | BAL Low | | **34** | BAL Low | |
| **9** | BAL Low<br>BAL 12.5; BAL 19; BAL 29 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present along the eastern boundary only – extending a maximum of 10m from the E boundary.<br>BAL 19 and BAL 29 extend into the lot from the W boundary – maximum extent is 3m for BAL 29 and 9m for BAL 19 from the site boundary. | **22** | BAL Low | | **35** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the NW section of the lot – maximum extent 36m from NW corner. |
| **10** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present along the eastern boundary only – extending a maximum of 28m from the E boundary. | **23** | BAL Low | | **36** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in the southern section only – extending a maximum of 17m from the SW boundary. |
| **11** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 is present at the SW corner of the lot only – extending a maximum of 21m from the SW corner. | **24** | BAL Low | | **37** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in the southern section only – extending a maximum of 8.5m from the S boundary. |

| Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification | Lot No | Bushfire Attack Level | Qualification |
|---|---|---|---|---|---|---|---|---|
| **12** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 is present at the northern section of the lot only – extending a maximum of 44m from the NW corner. | **25** | BAL Low | | **38** | BAL Low<br>BAL 12.5 | BAL 12.5 present for the majority of the lot.<br>BAL Low is present in the southern section only – extending a maximum of 17m from the S boundary. |
| **13** | AL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 is present at the NW corner of the lot only – extending a maximum of 35m from the NW corner. | **26** | BAL Low | | **39** | BAL Low | |
| | | | | | | **40** | BAL Low<br>BAL 12.5 | BAL Low is present across the majority of the lot.<br>BAL 12.5 present in the NW section of the lot – maximum extent 4.75m from SW boundary. |

# 5. BUSHFIRE ATTACK LEVEL (BAL)

The assessed proposed lots at Lot 59 Lysdale Road, Wondai are subject BAL construction requirements as defined in Table 2 and shown in the BAL Assessment Maps in Appendix 1.

Table 3 identifies the setback distance from classified vegetation (Woodland) for Upslope and Flat land; this can be referred to for onsite validation of BAL ratings.

The bushfire attack level imposed by Woodland Vegetation is shown in the **BAL Parameters** map in Appendix 1.

**TABLE 3 SEPARATION DISTANCES FOR BAL RATINGS FOR IDENTIFIED VEGETATION CLASSES (FROM TABLE 2.7 OF AS3959)**

| Vegetation Classification | Bushfire Attack Levels (BALs) | | | | |
|---|---|---|---|---|---|
| | BAL - FZ | BAL – 40 | BAL --29 | BAL – 19 | BAL – 12.5 |
| | Distance (m) of the site from the predominant vegetation class | | | | |
| Woodland | **All upslopes and flat land (0 degrees)** | | | | |
| | <6 | 6 - <9 | 9 - <13 | 13 - <19 | 19 - <100 |
| Woodland | **Downslope 0 to 5 degrees** | | | | |
| | <8 | 8 - <11 | 11 - <16 | 16 - <23 | 16 - <100 |

The distances indicated in Table 3 are measured from the unmanaged understory of woodland vegetation, the nearest supporting part of the structure (see Section 6.1.2 for further detail).

# 6. CONSTRUCTION REQUIREMENTS.

Lots subject to BAL ratings maintain BAL 12.5 across all building envelopes (Lots 1, 2, 7, 8, 9, 10, 31, 32, 33, 12, 13, 29, 30, 35, 36, 37, and 38) as identified in the attached Bushfire Attack Level maps. Lots not listed here are not required to meet AS3959 standards.

## 6.1. RECOMMENDATIONS

In addition to BAL construction compliance, it is important that other bushfire mitigation measures be considered. These include access to water supplies for firefighting (assuming a stay and defend strategy is included in the occupant's fireplan), appropriate placement of gardens and landscaping, and annual building maintenance including removal of leafy debris accumulated on low pitched roofs and in gutters and removal of garden rubbish including lawn clippings.

### 6.1.1. Landscaping – Plant Selection

Plant selection for bushfire prone areas should avoid species containing high concentrations of flammable oils (eucalypt and palm species), and preference evergreen species less prone to annual dry season leaf drop. Consideration should be given to species which exhibit a habit or form that allows for separation from surrounding plants, either vertically or horizontally. For example, some conifer species grow branches from ground level, allowing flame contact from burning ground litter, and providing vertical connectivity. Preference should be given to species that have a clean trunk and clearly separated head of vegetation where there is risk of ignition from ground or surface vegetation (such as underneath or adjacent to elevated decks and floor structures).

General guidance for bushfire resilient building and landscaping is available online from the Queensland Reconstruction Authority:

https://www.qra.qld.gov.au/sites/default/files/2020-12/QRA_Bushfire_builing_guideline.PDF)

The Country Fire Authority publication 'Landscaping for Bushfire' provides a comprehensive guide for landscape planning and plant selection. It can be accessed online:

https://www.cfa.vic.gov.au/plan-prepare/how-to-prepare-your-property/landscaping.

It is recommended that these documents be reviewed during the landscape planning for this site. While the CFA publication is produced by Victorian authorities and describes southern plant species, the plant form and type selection criteria can be applied to local and tropical plants with equal relevance. This assists in identifying the most appropriate amenity plantings and landscaping materials suited to development in a bushfire prone landscape.

### 6.1.2. Separation Distance Measurements

Separation distance is measured in a flat plane (ignores topography), and is measured from the nearest face of the structure, ignoring soffit overhang, to the trunks of the nearest bushfire prone vegetation. The canopy or dripline is not taken as the point of measurement. Where the classified vegetation is located on adjoining 'unmanaged land' the separation distance must be measured from the property boundary due to the inability to ensure ongoing low hazard fuel on the neighbouring land. Figure 10 shows the distance measured between A and B is the same regardless of topography.

In addition to this, for those parts of the building that do not have external walls (carports, verandas, decks, landings, steps and ramps), the distance is measured to the supporting posts or columns. The following parts of the building are excluded when measuring the distance A to B:

a) Eaves and roof overhangs,
b) Rainwater and domestic fuel tanks
c) Chimneys, pipes, cooling or heating appliances or other services,
d) Unroofed pergolas
e) Sun blinds

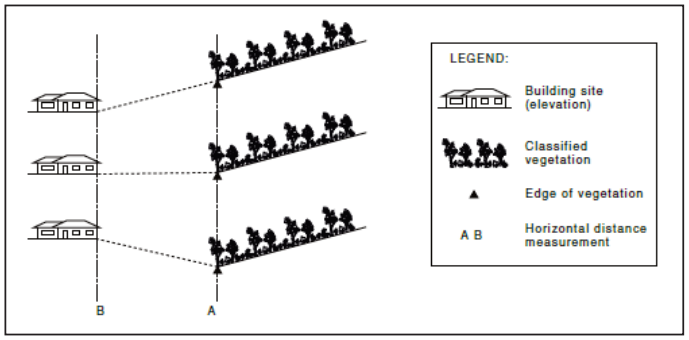



FIGURE 10 SEPARATION DISTANCE (FROM FIGURE 2.1, AS3959-2018)

### 6.1.3. Shielded Elevations

Elevations facing away or shielded from the direction of attack may be constructed to one BAL level lower than that specified for the structure generally, where a BAL applies to the structure. Elements of the structure that extend across the entire structure must comply with the higher BAL identified for the site (floor structure and roof structure), however facade elements may be reduced by one level where shielded according to the diagram in Figure 11, however cannot be reduced below BAL 12.5 (i.e. if the structure is assessed as BAL 12.5, the entire structure, and all facades must be constructed to meet BAL 12.5 requirements).

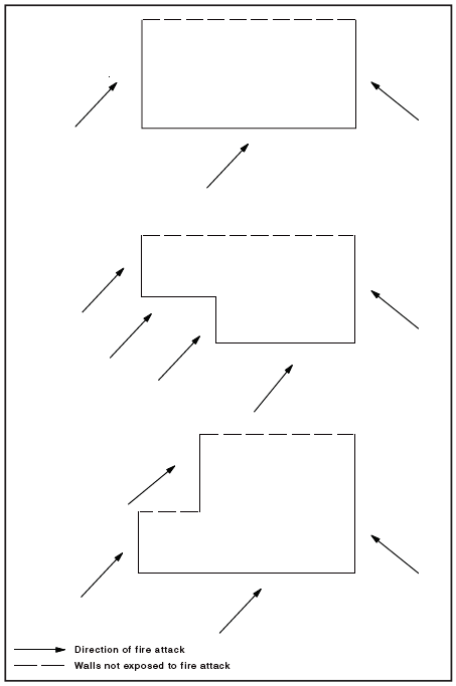



FIGURE 11 EXAMPLE OF ELEVATIONS SUBJECT TO SHIELDING (FROM FIGURE 3.1, AS3959 - 2018)

### 6.1.4. Low Threat Vegetation

Low Threat Vegetation is excluded from the vegetation classification when conducting the BAL Assessment.

According to AS3959, low threat vegetation is considered as:

- Non-vegetated areas, including waterways, roads, footpaths, buildings, and rocky outcrops.
- Low threat vegetation, including grassland managed in a **minimal fuel condition**, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

**Minimal fuel condition** means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm). While this can be extended to consider grass less than 300mm tall in Queensland (based on National Construction Code state specific parts), this should be considered for the purposes of landscaping and property design when considering the degree of vegetation clearing or modification to be undertaken within the nominated building envelopes.

## 6.2. LIMITATION

This assessment is based on the proposed creation of new land parcels and landscape management in Lysdale Estate – Proposal Plans, draft rev 1, 13/08/2025. If vegetation management is not executed consistent with these plans, then the BAL Assessment for individual sites may need to be reviewed.

Builders should confirm requirements associated with AS3959 prior to commencing construction. If the building certifier is uncertain of the correct parameters to establish the correct BAL, the author of this report should be consulted to revise the BAL of the specific property.

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# ECOLOGICAL ASSESSMENT REPORT

## PROPOSED SUBDIVISION - LOT 59, LYSDALE ROAD, WONDAI

Supporting documentation for the Development Application to South Burnett Regional Council and referral to the State Assessment and Referral Agency

Trend Environmental Consultants

September 2025

Prepared on behalf of
CAMERON ANSELL AND STUART NICHOLSON

# EXECUTIVE SUMMARY

Trend Environmental was engaged by Cameron Ansell and Stuart Nicholson to prepare an Ecological Assessment Report to support a Development Application for the proposed subdivision of Lot 59 SP184725, Lysdale Road, Wondai, Queensland 4606 (the project area). The project area is located within the South Burnett Regional Council (SBRC) local government area, covering 37.12 hectares (ha), and is proposed to be subdivided from one lot into 40 rural residential lots ranging in size from 4,002 metres $(m)^2$ to 14.33 ha. The proposal is code assessable under the *SBRC Planning Scheme 2017 v2.0* and triggers referral to the State Assessment Referral Agency (SARA) for assessment against *State Code 16: Native Vegetation Clearing* under the State Development Assessment Provisions (SDAP).

This Ecological Assessment Report was prepared to:

- Verify ecological values mapped under the *Biodiversity Areas Overlay* of the *SBRC Planning Scheme 2017* and regulated vegetation under the *Vegetation Management Act 1999* (Qld);
- Assess the potential impacts of the proposed subdivision on ecological values;
- Identify avoidance, minimisation, and mitigation measures to protect ecological values and ecosystem processes; and
- Address the assessment benchmarks for the Biodiversity Areas Overlay of the *SBRC Planning Scheme 2017* and State Code 16: Native Vegetation Clearing under the State Development Assessment Provisions (SDAP) to support the development application.

**Key Ecological Values**

The key ecological values verified within the project area included:

- **Regulated Vegetation (Category B, Remnant):** 30.54 ha verified within the project area, characterised by least concern Regional Ecosystems (REs 12.5.1, 12.5.1e, and 12.5.7).
- **Non-remnant Vegetation (Category X):** 6.58 ha.
- **MSES Wildlife Habitat:** 2.78 ha mapped for the special least concern Short-beaked Echidna *(Tachyglossus maculeatus).*
- **Watercourses:** Two stream order 1 watercourses traverse the project area, flowing south to north. One in the centre of the project area and one in the very east.
- **Waterway Barrier Works:** Two low-risk waterways recognised for fish passage under the *Fisheries Act 1994* (Qld) were confirmed, with one crossing required for a new road. These works will be undertaken as accepted development in compliance with the relevant provisions.
- **Threatened Species:** While habitat values for species such as the Koala are present, no threatened fauna were recorded during field surveys and the project area is not mapped as essential habitat for threatened species under the *Nature Conservation Act 1992* (Queensland; Qld). All recorded flora and fauna were least concern under this Act.

**Potential Impacts**

The proposed subdivision requires clearing of regulated vegetation and MSES, resulting in direct impacts to:

- 15.06 ha of MSES Regulated Vegetation (Category B least concern REs); and
- 1.35 ha of MSES Wildlife Habitat for the special least concern, Short-beaked Echidna.

Indirect impacts during construction may include:

- Introduction and spread of invasive weeds;
- Noise, vibration, and disturbance to fauna;
- Dust generation and reduced air quality;
- Waste generation and potential contamination from fuel, oil, and chemicals;
- Erosion and sediment runoff from disturbed soils.

**Avoidance, Minimisation, and Mitigation**

The proposed development has implemented the hierarchy of management principles: avoid, minimisation and mitigate:

- **Avoidance:** Development has been prioritised within the northwestern Category X (non-remnant) area which does not contain biodiversity areas on the OM5 Overlay Map, and watercourses have been fully avoided to maintain ecological connectivity through the implementation of larger lots and building envelopes where lots intersect with the watercourses.
- **Minimisation:** Where development was required outside of Category X (non-remnant) areas, these have been constrained to Category B (remnant) least concern REs only. A total of 15.48 ha (40.57%) of Category B vegetation will be retained (which includes 1.43 ha of MSES Wildlife Habitat (special least concern animal) for the Short-beaked Echidna), ensuring habitat continuity to the north and along watercourses.
- **Mitigation:** Construction-phase measures will include a Construction Environmental Management Plan (CEMP), an Erosion and Sediment Control Plan, weed management, and fauna management protocols (including pre-clearance surveys and spotter–catcher supervision) to mitigate indirect impact to biodiversity areas during construction.

While some clearing of regulated vegetation and biodiversity overlay areas are required to facilitate the subdivision, the development has been designed to avoid and minimise ecological impacts to the greatest practicable extent, with retention of significant areas of remnant vegetation and protection of watercourses built into the design. Mitigation measures will also ensure indirect impacts are managed appropriately. On this basis, the proposed development is considered compliant with the intent of the Biodiversity Areas Overlay assessment benchmarks within the Reconfiguring a Lot Code and Rural Residential Zone Code of the SBRC Planning Scheme 2017 and State Code 16: Native Vegetation Clearing of the SDAP.

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# INTRODUCTION

## 1.1 PROJECT BACKGROUND

Trend Environmental was engaged by Cameron Ansell and Stuart Nicholson to prepare an Ecological Assessment Report to support a development application for a proposed subdivision on Lot 59 SP184725, at Lysdale Road, Wondai, Queensland 4606 (herein referred to as the project area; location shown in Map 1, Appendix B).

This project area is located within the South Burnett Regional Council (SBRC) local government area and covers a total area of 37.12 hectares (ha). The proposed subdivision is subject to development approval under the *Planning Act 2016* (Queensland; Qld), with assessment undertaken against the *SBRC Planning Scheme 2017 v2.0,* and referral to the State Assessment and Referral Agency (SARA) for assessment against State Code 16: Native Vegetation Clearing within the State Development Assessment Provisions (SDAP).

The Development Application is for Reconfiguring a Lot. The plan for the lot is to subdivide from one lot into 40 lots (design plans provided in Appendix A). The new lots will range in size from 4,002 metres $(m)^2$ to 14.33 ha.

The project area is zoned RR1 Rural Residential under the *SBRC Planning Scheme 2017 v2.0.* A Reconfiguring a Lot application within the RR1 Rural Residential zone is code assessable where proposed lots meet the minimum size of 4,000 $m^2$, as specified in *Table 8.4.2 – Minimum Lot Dimensions* of the planning scheme. As all proposed lots exceed this minimum requirement, the application is code assessable against the Reconfiguring a Lot Code and the Rural Residential Zone Code of the planning scheme. These codes incorporate the relevant Biodiversity Areas Overlay assessment benchmarks.

This Ecological Assessment Report provides the results of an ecological assessment related to the verification of attributes mapped on the *Biodiversity Areas Map* within the *SBRC Planning Scheme 2017,* regulated vegetation protected under the *Vegetation Management Act 1999* (Qld), and other relevant state and Commonwealth ecological values. This report has been prepared to address the *Biodiversity Areas Overlay* requirements of the *SBRC Planning Scheme 2017,* and the *State Code 16: Native Vegetation Clearing* requirements under the SDAP. To do this, this report provides the following:

- An assessment of the relevant ecological values and ecosystem processes on and adjacent to the project area;
- Assessment of the potential impacts of the proposed development on these ecological values; and
- Identification of avoidance, minimisation and mitigation measures required for the long-term protection of ecologically values and ecosystem processes on the project area.
- Assessment against the relevant assessment benchmarks for *Biodiversity Areas Overlay* and *State Code 16: Native Vegetation Clearing.*

Table 1 below describes the applicant and development attributes of the project area.

**Table 1** Project area attributes

| Attribute | Details |
|---|---|
| Applicant | Cameron Ansell and Stuart Nicholson |
| Local Government Area | South Burnett Regional Council |
| Lot on Plan | 59 SP184725 |
| Total area of lot | 37.12 hectares |
| Tenure | Freehold |
| Address | Lysdale Road, Wondai QLD 4606 |
| Planning Scheme | South Burnett Regional Council Planning Scheme 2017 v2.0 |
| Zoning | RR1 - Rural Residential |
| Biodiversity Areas Overlay Map Attributes | Regulated vegetation (Category B)<br>Wildlife habitat (special least concern) |
| Vegetation Management Mapping | Regulated vegetation containing Category B (remnant) and Category X (Non-remnant)<br>Least concern regional ecosystems<br>Two stream order one watercourses |

## 1.2 PROPOSED PROJECT DISTURBANCE

To undertake the proposed subdivision, vegetation clearing will be required which will impact on mapped attributes on the *Biodiversity Areas Overlay Map* within the *SBRC Planning Scheme 2017.* Not all native vegetation within the project area will be cleared however, with the watercourses in the centre and eastern portion the project area to remain undisturbed. For the purpose of the impact assessment however it is assumed that vegetation clearing will occur on all proposed lots, with the exception of Lot 21, 29, 30 and 31 shown in the plans in Appendix A. As a result, the native vegetation to retained within the project area is 15.48 ha.

## 1.3 PROJECT AREA DESCRIPTION, ENVIRONMENTAL SETTING AND SURROUNDING LAND USE

### 1.3.1 Bioregion and Habitat Context

The project area is located within the Southeast Queensland bioregion, within the South Burnett subregion. The South East Queensland bioregion lies mostly in Southeast Queensland but extends to Coffs Harbour in New South Wales (NSW). The bioregion spans an area of 7,804,921 ha.

The bioregion is one of the most biodiverse bioregions in Australia, home to eucalypt forests and woodlands, with rainforests on mountain slopes and in stream valleys and wallum heaths near the coast. The climate ranges from sub-tropical in the east through to temperate in the uplands (EHP, 2016). There is a wide variety of soils, vegetation, climate and topography within this bioregion. The Southeast Queensland bioregion has over 300 threatened animal and plant species.

The project area occurs on a slight elevation from north to south. Elevations over the project area range from 336 - 356m Australian Height Datum (AHD). Two vegetation management watercourses (stream order 1) occur within he project area: one in the centre and one in the east of the project area. Much of the project area is mapped as Category B (remnant) vegetation, with a relatively large parcel of Category X (non-remnant) vegetation in the north western corner of the project area (regulated vegetation areas defined under the *Vegetation Management Act 1999;* Qld; Vegetation Management Report provided in Appendix E).

The majority of the landscape in the vicinity of the project area has been subject to vegetation clearing, and modification for development, leaving much of the remaining vegetation communities fragmented. This has implications for species dispersal, particularly for threatened species. The immediate vicinity of the project area contains development for rural residential housing purposes (urban development can be seen in the imagery in Map 2, Appendix B).

### 1.3.2 Geology and Land Zones

Surface geology mapping assists in verifying land zones within a project area, which is a critical component to verifying regional ecosystems and habitats within a project area. The Queensland Government QResGlobe mapping tool (using surface geology layers) identified the project area as containing *stratified units (including volcanic and metamorphic) from the Tertiary period* (Table 2).

These geology layers provide an indication that Land Zone 5 *(Tertiary-early Quaternary extensive, uniform near level or gently undulating plains with sandy or loamy soils. Includes dissected remnants of these surfaces. Also includes plains with sandy or loamy soils of uncertain origin, and plateau remnants with moderate to deep soils usually overlying duricrust)* is present within the project area (land zones provided as the second numeral in the RE codes provided in Table 2).

The two watercourses within the project area are classified as stream order 1 and exhibit only minor alluvial influence from overland flow. The field assessment confirmed these features as Land Zone 5 (Tertiary–early Quaternary loamy and sandy plains and plateaus) with limited alluvial development.

**Table 2** Surface geology mapped

| Unit Name | Map Symbol | Age | Lithology Description |
|---|---|---|---|
| Td-QLD | Td-SEQ | Tertiary | Duricrusted palaeosols at the top of deep weathering profiles, including ferricrete and silcrete; duricrusted old land surfaces. |

### 1.3.3 Catchment Context

The project area is located in the South Burnett region of Queensland and lies within the Burnett River catchment, specifically in the Barambah Creek sub-catchment. The Burnett River catchment is one of Queensland's major river systems and an important ecological, agricultural, and water resource area.

The catchment covers an area of approximately 33,00 kilometre (km)$^2$ and extends from the Great Dividing Range in the west to the Coral Sea. There are four major tributaries: Auburn River, Nogoa River, Barambah Creek, and Boyne River. The project area is situated near the headwaters of Barambah Creek and its minor tributaries, which flow west to east. Barambah Creek eventually flows into the Burnett River system, which discharges into the Coral Sea near Bundaberg.

The Burnett River catchment area receives an average annual rainfall of approximately 688 to 747 millimetres (mm). This rainfall results in an annual river discharge of about 1076 gigalitres (GL) to the coast.

### 1.3.4 Climate

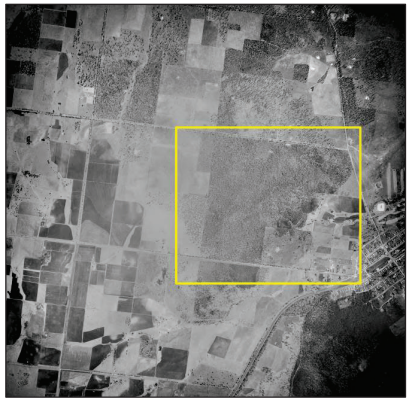
The Wondai region typically experiences a subtropical climate with distinct seasonal patterns. Annual rainfall is an average of 776.2 mm, with most rain falling in the summer and early autumn months (December to March). Winter and early spring are typically drier month, with lower humidity experienced (BoM, 2025).

## 1.4 HISTORY AND LAND USE OF THE PROJECT AREA

Historical imagery of the project area was obtained from QImagery and Google Earth, with the earliest image dating back to 1951 (Figure 1). The following details the timeline of clearing and regrowth within the site, and development within the surrounding landscape:

- **1951 -** Shows the site (yellow inset) contained intact remnant vegetation. Many areas surrounding the site however, had been cleared for agriculture.
- **1971 –** A small area in the northwest of the project area had been cleared by 1971, with a dam was installed adjacent. The balance of the project area remained intact with remnant vegetation. Residential development in Wondai township, to the east of the project area was evident.
- **1986 –** The cleared area in the northwest corner of the project area had undergone further clearing, extending slightly south.
- **2002 –** Limited maintenance of the cleared area in the northwest had occurred, with evidence of vegetation having started to regrow in this area. Infill of residential housing was evident to the south of the project area
- **2012 –** Further regrowth in the northwest corner of the project area was evident. Additional areas directly to the southeast of the project area had been cleared for residential purposes.
- **2025 –** Current day landscape with a balance of 6.58 ha of non-remnant vegetation and 30.54 ha of remnant vegetation within the project area. The project area is surrounded by a mix of residential properties and some intact habitat areas. Most connectivity for the site is evident to the north.

From these images it is evident that the project area remained uncleared until sometime between 1951 and 1971 when an area in the northwest was cleared and then extended during the following decade. Sine 1986 however, the cleared area was left unmaintained, and regrowth vegetation became established. No further clearing has been undertaken on the site since 1986.



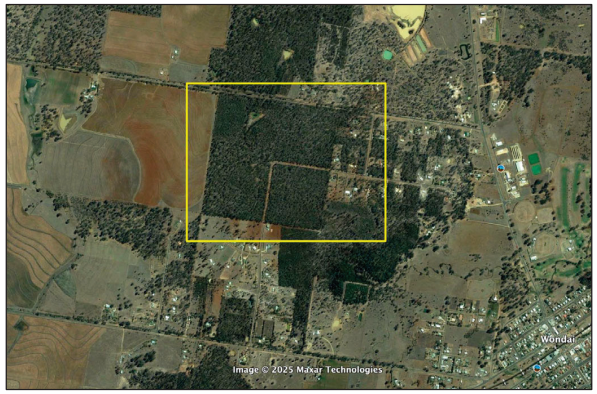
Imagery from 1951
Source: QImagery QAP0214081



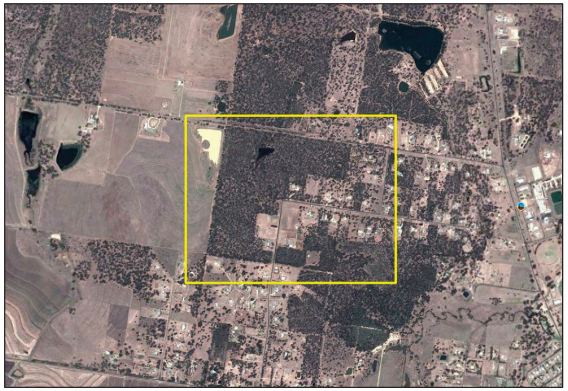
Imagery from 1971
Source: QImagery QAP2163112



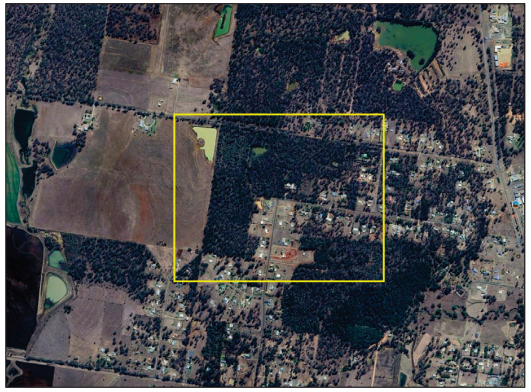
Imagery from 1986
Source: QImagery QAP4423187




Imagery from 2002
Source: Google Earth 2002



Imagery from 2012
Source: Google Earth 2012



Imagery from 2025
Source: Google Earth 2024

**Figure 1** Historical agery of the :t area since 1951

# METHODOLOGY

## 2.1 DESKTOP ASSESMENT

### 2.1.1 Methodology

A desktop assessment was undertaken to characterise and identify potential ecological values that may be present within the project area. This desktop assessment included a review of literature, and a review of all relevant publicly available environmental databases, maps and relevant environmental legislation to identify the ecological values that could potentially occur within the project area or in close proximity, and could potentially be impacted by the proposed development.

The databases reviewed during the desktop assessment include those listed in Table 3 and where relevant the resulting reports and maps have been provided in Appendix E. This review informed the likelihood of occurrence assessment for the project (provided in Appendix C).

**Table 3** Information sources reviewed during the desktop assessment

| Type | Source | |
|---|---|---|
| Legislation | Local | *South Burnett Regional Council Planning Scheme 2017 v2.0* |
| | State | *Vegetation Management Act 1999* , *Nature Conservation Act 1992, Fisheries Act 1994, Water Act 2000, Environmental Protection Act 1994, Environmental Offsets Act 2014* |
| | Commonwealth | *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* |
| Imagery | Queensland Globe 2025 | |
| | Google Earth Pro 2025 | |
| | QImagery Historical Imagery | |
| | Detailed Surface Geology 1:100,00 | |
| Planning Maps | *South Burnett Regional Council Planning Scheme 2017* – Biodiversity Areas Overlay Map | |
| Database Searches/Maps/ Reports | State Planning Policy Interactive Mapping System | |
| | DCCEEW *EPBC Act* Protected Matters Search Tool (PMST; 20km buffer; updated September 2025) | |
| | Department of Natural Resources, Mines and Energy (DNRME) Vegetation Management Report | |
| | Matters of State Environmental Significance (MSES) Report | |
| | Department of Environment, Tourism, Science and Innovation (DETSI) WildNet species lists (20km buffer; updated September 2025) | |
| | Atlas of Living Australia (ALA) Species Occurrence Records | |
| Reports and Plans | All conservation and listing advice for threatened species; DCCEEW SPRAT | |

### 2.1.2 Likelihood of Occurrence Assessment

Threatened ecological communities (TECs), threatened and migratory species, if found present within the project area, can cause constraints to development due to the potential for impacts. From a desktop perspective, a likelihood of occurrence assessment can be undertaken to determine the likelihood these communities and species will be found within the project area, which provides an indication of potential impacts from the proposed development. This assessment can also inform the

field ecological assessment identifying the TECs, threatened and migratory species most likely to occur that should be targeted for verification purposes.

A likelihood of occurrence assessment was undertaken to determine the likelihood TECs, threatened and migratory species would be found within the project area (likelihood of occurrence assessment provided in Appendix C). Threatened ecological communities and species, and migratory species were identified using the EPBC Act PMST, the WildNet species record database and ALA species records (relevant database search result reports are provided in Appendix E).

The likelihood of occurrence assessment identified the TECs, threatened and migratory species that were considered 'known to occur', likely to occur', 'may occur' or 'unlikely to occur' within 20 km of the project area, based on the definitions provided in Table 4. These definitions were used as a guide, and a species may have been given a different likelihood term depending on behaviour (e.g., aerial or cryptic nature making it more or less likely to occur regardless of nearby records). The likelihood of occurrence assessment results have been provided in Appendix C of this report. These likelihood of occurrence results have been reviewed post the field assessment to provide evidence of species records or species habitat within the project area.

**Table 4** Explanation of terms used in the likelihood of occurrence assessment

| Terms | Definition |
|---|---|
| Known to occur | Recorded on the project area during field surveys. |
| Likely to occur | For TECs, the project area supports a corresponding RE as listed in the TEC Approved Conservation Advice or Listing Advice.<br>For threatened and migratory species, the project area contains the species preferred habitat with associated habitat attributes (e.g., microhabitats), AND numerous recent (<10 years) and adjacent (<20 km) individuals have been recorded. |
| May occur | For threatened and migratory species, the project area contains suitable or marginally suitable habitat **AND** isolated records (<10 years) in an adjacent area (<20 km). |
| Unlikely to occur | For TECs, the project area does not support a corresponding RE as listed in the TEC Approved Conservation Advice or Listing Advice.<br>For threatened and migratory species, the project area does not support the species habitat and associated habitat features, regardless of species records within the adjacent area or within the region **OR** suitable habitat occurs within the project area, but no records in the adjacent area (<20 km). |

## 2.2 FIELD ASSESSMENT

### 2.2.1 Methodology

A field assessment was conducted by Clayton Bell, a suitably qualified ecologist in 2023 whereby ecologcal data was collected to support a map amendment request using a Property Map of Assessable Vegetation (PMAV) through the Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development (DNRMMRRD).

A PMAV is a property-scale map that shows the boundaries of vegetation categories on a property. Once a PMAV is certified, it replaces the regulated vegetation management map for determining the location and extent of the different areas of vegetation under the *Vegetation Management Act 1999* (Qld).

The ecological data collected for this PMAV application included:

- Quaternary surveys undertaken in accordance with the *Methodology of surveying and mapping regional ecosystems and vegetation communities (Neldner et al., 2023)* within all vegetated areas, to verify the mapped REs and to characterise the floristic composition and structure of the vegetation communities.
- Vegetation categorisation surveys to characterise the vegetation into vegetation communities based on dominant canopy species and vegetation structures.
- Vegetation community delineation surveys to field validate the extent of the vegetation communities.
- Recording of all flora species observed, as well as any restricted invasive species listed under the *Biosecurity Act 2014 (Qld)* or considered Weeds of National Significance (WoNs) recognised under the *National Established Weed Priorities (NEWP) Framework.*

These data have been utilised within this ecological assessment report, along with interpretation of the following based on current photographs and video of the ecosystems within the project area, desktop available information (historical and curreent aerial imagery, species records lists, and local knowledge of the project area):

- Assessment of vegetation communities to confirm if they likely meet the key diagnostic criteria and condition thresholds of the threatened ecological communities (TEC) identified as likely to occur during the desktop assessment.
- Assessment of the suitability of the vegetation to provide habitat for threatened flora species listed under the *Nature Conservation Act 1992* (Qld) and/or the *EPBC Act* (Cth).
- Assessment of the vegetation communities to confirm the suitability of them providing habitat for the threatened and migratory fauna species identified as potentially present during the desktop assessment.

## 2.3 REPORTING

### 2.3.1 Desktop and Field Assessment Results

Results from the desktop and field assessments have been provided throughout this report.

### 2.3.2 Nomenclature

Taxonomic nomenclature used for the description of flora species within this report was according to the Census of Queensland Flora and Fungi 2023 (Bean, 2024). Where relevant, species have been listed by family name in alphabetical order.

## 2.4 ASSUMPTIONS AND LIMITATIONS

### 2.4.1 Third Party Data

The content in this report, including the assessment of project impacts, is based on information available at the time the report was prepared. Information has been obtained from third party sources (refer to *Section 2.1.1 Methodology)* and, while due diligence has been taken to ensure the accuracy of these data, Trend Environmental makes no statements regarding the reliability or completeness of these data.

# DESKTOP ASSESMENT RESULTS

## 3.1 DATABASE OVERVIEW

All relevant databases applicable to the project area were reviewed and the results of this desktop assessment provided in Table 5.

**Table 5** Information sources levant to the project are

| Database Source | | Search Results | Applicability | Database Reference |
|---|---|---|---|---|
| **LOCAL GOVERNMENT** | | | | |
| *South Burnett Regional Council Planning Scheme 2017 Biodiversity Areas Overlay Map* | | Regulated vegetation (Category B) and Wildlife habitat (special least concern) were mapped within the project area. | Yes | Biodiversity Overlay Map 05, provided in Appendix E |
| **STATE GOVERNMENT** | | | | |
| Vegetation Management Report | Regulated Vegetation Management Map | Category B (Remnant vegetation) was mapped throughout most of the project area, with Category X (non-remnant) vegetation mapped in the northwestern portion of the project area. | Yes | Vegetation Management Report in Appendix E |
| | Vegetation Management Supporting Map | The Category B vegetated areas on the project area were mapped as containing:<br>• Heterogenous polygon of least concern regional ecosystems 12.5.1e and 12.5.7b<br>• Homogenous polygon of least concern regional ecosystem 12.5.1.<br>In addition, two stream order 1 watercourses were mapped within the project area. | Yes | Vegetation Management Report in Appendix E |
| Matter of State Environmental Significance (MSES) Report | MSES | The following MSES were mapped:<br>• MSES Wildlife habitat (special least concern)<br>• MSES Regulated vegetation (Category B) | Yes | MSES Report in Appendix E |
| **COMMONWEALTH GOVERNMENT** | | | | |
| Protected Matters Search Tool Report | Matters of National Environmental Significance | The following MNES were listed in the PMST as potentially occurring:<br>• Eight threatened ecological communities<br>• 57 threatened species<br>• Ten migratory species | Yes | PMST Report to Appendix E |

## 3.2 DESKTOP REVIEW RESULTS

### 3.2.1 Biodiversity Overlay Map

The *Biodiversity Areas Overlay Map* within the *SBRC Planning Scheme 2017* is applicable to category of development for the project, with assessment for any mapped attributes required. A review of the *Biodiversity Areas Overlay Map* identified the presence of the following attributes within the project area:

- Regulated vegetation (Category B); and
- Wildlife habitat (special least concern).

The *Biodiversity Areas Overlay Map* showing the project area is provided OM5 in Appendix E.

### 3.2.2 Desktop Mapped Regulated Vegetation

In Queensland, regulated vegetation refers to native vegetation protected under the *Vegetation Management Act 1999* (Qld). Under the Act, regulated vegetation is classified into categories that reflect its level of protection:

- Category A – Vegetation subject to offsets or compliance notices
- Category B – Remnant vegetation
- Category C – High-value regrowth vegetation
- Category R – Reef regrowth watercourse vegetation
- Category X – Exempt clearing work on Freehold, Indigenous and Leasehold land (non-remnant vegetation)

Clearing within Category X areas is generally exempt from approval, whereas clearing within Categories A, B, C, or R may require development approval under the State Development Assessment Provisions (SDAP) referral process, unless the clearing meets exempt or accepted development criteria.

Vegetation within Categories A, B, C, and R is described and mapped by the Queensland Herbarium as regional ecosystems (REs). Vegetation communities within a bioregion that consistently associate with specific geology, landform, and soil conditions (Neldner et al., 2023). The regional ecosystems and their associated regulated vegetation categories mapped within the project area are listed in Table 6 (Vegetation Management Report, Appendix E).

Mapping identified Category B (remnant vegetation) across much of the project area, with a relatively large patch of Category X (non-remnant vegetation) in the northwestern portion. The Category B area comprised one large, heterogeneous polygon of least concern REs 12.5.1e and 12.5.7b, and two smaller, homogeneous polygons of least concern RE 12.5.1, located in the far eastern and southeastern corners of the project area. These regional ecosystems are shown in Map 2, Appendix B.

All vegetation within the project area was surveyed to field-verify the regulated vegetation and RE mapping.

**Table 6** Regional ecosystems mapped within the project area

| RE | Description | Category[1] | Structure | VMA Class[2] |
|---|---|---|---|---|
| 12.5.1 | *Open forest complex with Corymbia citriodora subsp. variegata on subcoastal remnant Tertiary surfaces. Usually deep red soils* | B | Mid-dense | LC |
| 12.5.1e | *Eucalyptus crebra and Angophora leiocarpa +/- Corymbia intermedia, E. longirostrata, Eucalyptus major, Eucalyptus tereticornis, Eucalyptus acmenoides or Eucalyptus portuensis, C. citriodora subsp. variegata woodland to open forest. Occurs on remnant Tertiary surfaces.* | B | Mid-dense | LC |
| 12.5.7 | *Corymbia citriodora subsp. variegata +/- Eucalyptus portuensis or E. acmenoides, Eucalyptus fibrosa subsp. fibrosa open forest on remnant Tertiary surfaces. Usually deep red soils* | B | Mid-dense | LC |

[1] *Regulated vegetation category: Category B (remnant vegetation), Category C (high-value regrowth), Category R (reef regrowth watercourse vegetation).*
[2] *Vegetation Management Act (VMA) 1999 (Qld) Class: EN = Endangered, OC= Of Concern, LC = Least Concern.*

### 3.2.3 Wetlands and waterways

#### *3.2.3.1 Vegetation Management Act Watercourses and Wetlands*

Wetlands and watercourses are afforded protection under the *Vegetation Management Act 1999* (Qld). A review of the Vegetation Management Supporting Map (Appendix E) identified no wetlands within the project area. However, two stream order 1 watercourses were mapped traversing the central and eastern portions of the site, flowing south to north (Vegetation Management Report, Appendix E). The vegetation management watercourses are shown in Map 2, Appendix B.

#### *3.2.3.2 Fish Passage (Waterway Barrier Works) watercourses*

The project area contains two green (low risk of impacts) waterways, mapped within the Department of Agriculture and Fisheries (DAF) Queensland waterways for waterway barrier works mapping, protected under the *Fisheries Act 1994* (Qld). These waterways are shown in Map 3, Appendix B.

#### 3.2.3.3 High Ecological Significant Wetlands and Watercourse, and Great Barrier Reef Wetlands

No high ecological significant wetlands, watercourses or Great Barrier Reef wetlands protected under the *Environmental Protection Act 1994* (Qld) were mapped within the project area.

#### 3.2.3.4 Fish habitat areas

No fish habitat areas, protected under the *Fisheries Act 1994* (Qld) were mapped within the project area.

### 3.2.4 State-listed Threatened Species

#### 3.2.4.1 Protected Flora Survey Trigger Mapping

No areas of 'high-risk' for protected plants on the flora survey trigger map occur within the project area (Vegetation Management Report provided in Appendix E).

#### 3.2.4.2 Essential habitat

Essential habitat is defined under the *Vegetation Management Act 1999* (Qld) as habitat for endangered, vulnerable or near-threatened wildlife (protected wildlife; EVNT) prescribed under the *Nature Conservation Act 1992* (Qld). The project area is not mapped as containing essential habitat mapping (Vegetation Management Report provided in Appendix E).

#### 3.2.4.3 WildNet Conservation significant Species Records

The WildNet conservation significant species database provides threatened species records for a specified area. Twenty-two state-listed threatened flora and fauna species were recorded within 20 km buffer of the project area (WildNet Species List provided within Appendix C).

#### 3.2.4.4 State-listed Threatened Wildlife Habitat

Modelled habitat mapping for threatened species provides an indication of where State-listed threatened species habitat is likely to occur. The MSES modelled habitat suitability mapping based on State-mapped regulated vegetation mapping identified areas of wildlife habitat for the Short-beaked Echidna, *Tachyglossus aculeatus,* within the eastern portion of the project area (MSES Report provided in Appendix E).

### 3.2.5 Commonwealth Matters

The *EPBC Act* (Cth) PMST report (updated 24 September 2025) identified MNES that were known to occur or may occur within the area of interest (20km buffer; EPBC PMST results provided in Appendix E). This report identified:

- Eight TECs
- 57 threatened species
- Ten migratory species

### 3.2.6 Results of the Likelihood of Occurrence Assessment for Threatened and Migratory Species

A determination of the likelihood of presence of TECs was undertaken by reviewing whether any of the corresponding REs listed within the relevant DCCEEW Conservation or Listing Advice were mapped within the project area (likelihood of occurrence assessment for TECs provided in Appendix C). Based on these, no TECs were considered likely to occur within the project area due to no mapped presence of corresponding REs (Table 7).

The likelihood of occurrence assessment was also completed for MNES threatened species, and migratory species (Appendix C). This assessment identified one Commonwealth-listed threatened flora species (Zieria inexpectata), three Commonwealth-listed threatened fauna species (three mammals), and one migratory bird species as likely to or may occur within the project area (Table 8).

**Table 7** TECs potentially occurring within the project area

| TEC Community | Status[1] | Presence | Corresponding REs[2] |
|---|---|---|---|
| Brigalow *(Acacia harpophylla* dominant and co-dominant) TEC | EN | Unlikely to occur | No corresponding REs mapped in the project area |
| Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions | EN | Unlikely to occur | No corresponding REs mapped in the project area |
| Lowland Rainforest of Subtropical Australia | CE | Unlikely to occur | No corresponding REs mapped in the project area |
| Poplar Box Grassy Woodland on Alluvial Plains TEC | EN | Unlikely to occur | No corresponding REs mapped in the project area |
| Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions | EN | Unlikely to occur | No corresponding REs mapped in the project area |
| Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions | EN | Unlikely to occur | No corresponding REs mapped in the project area |
| Weeping Myall Woodlands | EN | Unlikely to occur | No corresponding REs mapped in the project area |
| White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland | CE | Unlikely to occur | No corresponding REs mapped in the project area |

[1] *EPBC Act (Cth): CE = Critically Endangered, EN = Endangered, VU = Vulnerable*
[2] *These REs are considered to be the TEC if they meet the descriptions, diagnostic criteria and condition thresholds within the relevant Conservation or Listing Advice for each TEC.*
*Notes: TECs that are unlikely to be present in the project area, due to lack of suitable REs, have been greyed out.*

**Table 8** Threatened and migratory species potentially occurring within the project area

| Family | Scientific Name | Common Name | Status | | Likelihood of Occurrence[3] |
|---|---|---|---|---|---|
| | | | QLD[1] | CTH[2] | |
| **PLANTS** | | | | | |
| Rutaceae | *Zieria inexpectata* | - | EN | - | May occur |
| **MAMMALS** | | | | | |
| Petauridae | *Petaurus australis australis* | Yellow-bellied Glider (southern) | VU | VU | May occur |
| Phascolarctidae | *Phascolarctos cinereus* | Koala | EN | EN | Likely to occur |
| Pteropodidae | *Pteropus poliocephalus* | Grey-headed Flying-fox | - | VU | May occur |
| **MIGRATORY SPECIES** | | | | | |
| Apodidae | *Apus pacificus* | Fork-tailed Swift | - | Mi, M | Likely to occur |

[1] *Queensland (Qld) Status (Nature Conservation Act 1992): EX = Extinct, EW = Extinct in Wild, CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened or LC = Least Concern.*
[2] *Commonwealth (Cth) Status (EPBC Act): EX = Extinct, EW = Extinct in Wild, CE = Critically Endangered, EN = Endangered, VU = Vulnerable, M = marine, Mi = Migratory*
[3] *Data in the 'Likelihood of Occurrence' column corresponds to information provided in Appendix B – categories used include likely to occur or may occur.*

### 3.2.7 Corridors and Connectivity

Connectivity areas are considered an MSES under *Queensland's Environmental Offsets Act 2014* (Qld). The native vegetation in the project area has some marginal connectivity with native vegetation on the property to the north, and the riparian vegetation along the watercourses to the north and northeast of the project area. This vegetation however has marginal connectivity with other habitat areas in the greater landscape.

The project area is not located within the state or regional biodiversity corridor (Queensland Globe) and is nearly 10km from the nearest mapped corridor (Barambah Creek, which is located to the east of Wondai).

### 3.2.8 Terrestrial Weeds

The search of the Queensland WildNet species database identified 78 flora species within 20 km of the project area that are introduced to Queensland. Some of these species are listed as restricted invasive plants (Category 3) under the *Biosecurity Act 2014 (Qld)* and Weeds of National Significance. These invasive species included:

- Madeira vine, *Anredera cordifolia*

- Ornamental Asparagus, *Asparagus africans*
- Cat's Claw Creeper, *Dolichandra unguis-cati*
- Lantana, *Lantana camara.*
- Creeping Lantana, *Lantana montevidensis*
- *Opuntia stricta*
- Velvety Tree Pear, *Opuntia tomentosa*

### 3.2.9 Pest Animals

The search of the Queensland WildNet pest species database identified records for 20 pest fauna species that are introduced to Queensland within 20 km of the project area. These species included the Cane Toad, Northern Mallard, Rock Dove, Spotted Dove, House Sparrow, Indian Peafowl, Common Myna, Common Starling, Monarch, Cabbage White, European Cattle, Dog, Red Fox, Cat, European Brown Hare, Rabbit, House Mouse, Goldfish, Mosquitofish, and House Gecko.

Of these, the Dog, Red Fox, Cat, Rabbit and Mosquitofish are listed as restricted invasive terrestrial animals under the *Biosecurity Act 2014 (Qld).*

# FIELD ASSESSMENT RESULTS

## 4.1 FIELD-VERIFIED REGULATED VEGETATION

All areas of project area were assessed to determine the vegetation class (i.e., non-remnant, high-value regrowth or remnant) and identify the representative regional ecosystems and vegetation communities. This assessment was completed in accordance with the *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities (Neldner et al., 2023).*

The field ecological survey of the project area identified Category B (remnant; 30.53 ha), and Category X (non-remnant vegetation; 6.58ha) vegetation areas on the project area. The Category B (remnant) areas were characterised by least concern REs 12.5.1, 12.5.1e and RE 12.5.7 (Map 2, Appendix B). These mapped areas and corresponding REs were the subject of the PMAV application in 2023, which updated the regulated vegetation areas shown within the Vegetation Management Report for the site (provided in Appendix E).

The largest Category B (remnant) patch (4.45ha) corresponds to a heterogenous polygon of RE12.5.1e/12.5.7 which is 27.0 ha in size. This vegetation community was a mix of *Eucalyptus crebra* (Narrow-leaved Ironbark), *Corymbia citriodora subsp. variegata* (Spotted Gum), *E. moluccana* (Grey Box), *E. tereticornis* (Queensland Blue Gum) and *Angophora leiocarpa* (Smooth-barked Apple). The vegetation had an average median height of 20 m, maximum height of 24 m with an average tree canopy cover estimate of <20%.

The remaining Category B (remnant) patches made up 1.93 ha (far eastern corner) and 1.24 ha (south-eastern corner) of RE12.5.1 and 0.37 ha (north-western corner) of RE12.5.1e/12.5.7 (Map 2, Appendix B).

Other areas of the project area were non-remnant, characterised by an abundance of Acacia and weed species including *Lantana camara* and *Megathyrsus maximus* (Guinea Grass; 6.58 ha). These areas were mapped as Category X (non-remnant) on Map 2 in Appendix B), with the main portion located in the north-western corner of the project area (6.35 ha).

Table 9 lists the field-verified REs and their relevant regulated vegetation category, structure category and VMA Class. Representative photographs of the vegetation within the project area are provided in Figure 2.

**Table 9** Field-verified REs

| RE | Description | Category[1] | Structure | VMA Class[2] |
|---|---|---|---|---|
| 12.5.1 | *Open forest complex with Corymbia citriodora subsp. variegata on subcoastal remnant Tertiary surfaces. Usually deep red soils* | B | Mid-dense | LC |
| 12.5.1e | *Eucalyptus crebra and Angophora leiocarpa +/- Corymbia intermedia, E. longirostrata, Eucalyptus major, Eucalyptus tereticornis, Eucalyptus acmenoides or Eucalyptus portuensis, C. citriodora subsp. variegata woodland to open forest. Occurs on remnant Tertiary surfaces.* | B | Mid-dense | LC |
| 12.5.7 | *Corymbia citriodora subsp. variegata +/- Eucalyptus portuensis or E. acmenoides, Eucalyptus fibrosa subsp. fibrosa open forest on remnant Tertiary surfaces. Usually deep red soils* | B | Mid-dense | LC |

[1] *Regulated vegetation category: Category B (remnant vegetation), Category C (high-value regrowth), Category R (reef regrowth watercourse vegetation).*
[2] *Vegetation Management Act (VMA) 1999 (Qld) Class: EN = Endangered, OC= Of Concern, LC = Least Concern.*



**Figure 2**
Representative photographs of the vegetation recorded thin the project area

## 4.2 FIELD-VERIFIED ATTRIBUTES ON THE BIODIVERSITY AREAS, WATERWAYS AND WETLANDS OVERLAY MAP

Based on field-verified vegetation data, the following MSES occur within the project area (Map 4, Appendix B):

- 30.54 ha of MSES Regulated Vegetation (Category B);
- 2.78 ha MSES Wildlife Habitat (special least concern animal), the Short-beaked Echidna.

The boundaries of these differ to what was previously mapped by SBRC within the *Biodiversity Areas Overlay Map (OM5)* withing the *SBRC Planning Scheme 2017,* which have not been updated within the PMAV applied to vegetation areas in 2023..

## 4.3 FIELD-VERIFIED FLORA AND FAUNA SPECIES

### 4.3.1 Flora Species

All flora species recorded during the field assessment have been listed in Appendix D. A total of 21 flora species were recorded, 19 of which were native, and two species were introduced. No State-listed threatened flora species listed under the *Nature Conservation Act 1992* (Qld) were found within the project area, nor were any Commonwealth-listed threatened flora species listed under the *EPBC Act* (Cth).

There was one introduced species confirmed on the project area that is considered a Category 3 restricted invasive plant under the *Biosecurity Act 2014* (Qld) and recognised as a WoNS. This species was *Lantana camara*.

### 4.3.2 Fauna Species

An abundance of microhabitats and land features were present within the remnant areas on the project area. The microhabitats observed on the project area included coarse woody debris, tree hollows, grass tussocks, farm dams, peeling bark, water bodies, vine thickets, leaf litter along with sufficient standing native vegetation at different strata which would contribute to available habitat for shelter for native fauna.

An assessment of the habitat suitability for each fauna group, including an assessment of the habitat suitability for the threatened and migratory species considered potentially occurring, is provided in Table 10. Remnant habitat within the project area provides some extension of habitat for most fauna groups and some threatened fauna species, allowing for some extension of suitable habitat within the species home ranges, in a modified landscape.

**Table 10** Assessment of abitat suitability for auna species on the project area

| Fauna Group | Availability of Habitat |
|---|---|
| Amphibians | Bodies of water, crevices, leaf litter and dense ground cover vegetation provide habitat for amphibian species in the project area; however, it is anticipated any amphibian species present would be limited to least concern species, with no threatened amphibian species considered likely to occur during the likelihood of occurrence assessment, due to a lack of suitable habitat within the project area. |
| Birds | Sufficient shelter for foraging, roosting, and nesting is available throughout the remnant vegetation within the project area, with water sources provided by two stream order 1 watercourses and a farm dam. However, the likelihood of occurrence assessment did not identify any threatened bird species as potentially present within the project area.<br>Although the available habitat could be utilised opportunistically by a range of bird species, it is fragmented and exhibits limited connectivity to larger, more continuous tracts of habitat in the surrounding landscape. This lack of connectivity reduces the capacity of the project area to support viable populations of threatened bird species.<br>Accordingly, while the site may provide transient resources such as foraging opportunities or temporary shelter, it is unlikely to function as critical habitat capable of supporting a threatened bird population. |
| Mammals | The project area supports a range of suitable microhabitats for mammals, including tree hollows, woody debris, hollow logs, dense groundcover, and a well-developed shrub layer. These features provide refuge, foraging, and breeding habitat for a diversity of least concern mammal species, such as native rodents, gliders, possums, and bandicoots.<br>The available habitat may also be utilised opportunistically by threatened mammals, including the Koala *(Phascolarctos cinereus),* Yellow-bellied Glider *(Petaurus australis),* and Grey-headed Flying-fox *(Pteropus poliocephalus)* and the special least concern, Short-beaked Echidna. However, similar to bird habitat, the |

| Fauna Group | Availability of Habitat |
|---|---|
| | remnant vegetation is fragmented and poorly connected to extensive areas of intact habitat, limiting the site's capacity to sustain resident populations of these species.<br>As a result, while the project area may provide supplementary resources (e.g., foraging or movement corridors) for threatened mammals, it is unlikely to function as core habitat capable of supporting viable populations. |
| Reptiles | Suitable microhabitat features for least concern reptiles do exist, particularly leaf litter, peeling bark, dense groundcover vegetation, woody debris and arboreal termitaria. While this is the case, the reptile species on the project area would be limited to least concern species, with no threatened reptile species considered potentially occurring due to lack of records within the vicinity (likelihood of occurrence assessment provided in Appendix C). |

## 4.4 WATERCOURSE AND WETLANDS

The stream order one watercourses were confirmed during the field survey. These watercourses are ephemeral and general capture overland flow from within the project area (Map 2, Appendix B). No wetland habitat occur within the project area or in close proximity.

Two low-risk waterway recognised for fish passage (waterway barrier works) under the *Fisheries Act 1994* (Qld) were verified within the project area. These are shown in Map 3, Appendix B.

## 4.5 ASSESSMENT OF THE CONDITION, ECOLOGICAL PROCESSES AND CONNECTIVITY OF THE HABITAT PRESENT

An assessment of the ecological condition and function of the vegetation within the project area was undertaken to evaluate its habitat value and connectivity with the broader natural landscape.

The majority of vegetation within the project area comprises remnant vegetation, characterised by a dominant canopy of mature Eucalyptus and Angophora species. This vegetation is in good condition, supporting numerous large, aged eucalypts that provide an abundance of faunal microhabitats, including tree hollows, peeling bark, coarse woody debris, dense shrub layers, and leaf litter. Collectively, these features offer important resources for common fauna species and may also serve as supplementary habitat for threatened species such as the Koala, although no evidence of Koalas was recorded during field surveys.

Remnant vegetation extends northward into the adjoining property, which also retains habitat values. In contrast, much of the surrounding landscape to the south, east, and west comprises agricultural land or rural residential areas that have been cleared of vegetation. Despite this, linear corridors and stepping-stone patches remain present further afield, providing some degree of connectivity to other habitat areas. Such stepping-stone habitats play a critical role in fragmented landscapes by enhancing species movement and dispersal between larger habitat patches (Lindenmeyer & Fischer, 2006; A. Bennett, 2003).

The ecological functionality of the project area is, however, constrained by surrounding agricultural and residential development. Land clearing, urbanisation, and the associated introduction of exotic species have reduced habitat quality and connectivity, disrupted ecological corridors, and limited opportunities for species movement. Consequently, the broader capacity of the site to support biodiversity is diminished.

In summary, while the remnant vegetation currently contributes to ecological connectivity, particularly with riparian corridors to the north, ongoing and future urban development represents a significant threat. These pressures are likely to result in a gradual decline in ecological function and biodiversity support capacity over time (Garrard et al., 2017).

The vegetation within the project area is of sufficient size to persist despite threatening processes as defined under the *Nature Conservation Act 1992* (Qld), which recognises threatening processes as those capable of:

(a) threatening the survival of protected areas, areas of major interest, protected wildlife, or wildlife habitat; or
(b) affecting the capacity of these areas to sustain natural processes.

For the project area, the primary threatening processes include:

- Habitat fragmentation, which restricts species movement and dispersal, limiting access to resources and mates.
- Edge effects, including increased predation pressure, altered microclimatic conditions, and reduced genetic diversity over time.
- Noise and light pollution, which can disrupt wildlife behaviour, foraging activity, and reproductive cycles.

# DISCUSSION

## 5.1 OVERVIEW

The desktop assessment revealed that the project area contained overlay attributes mapped on the *Biodiversity Areas Overlay Map* within the *SBRC Planning Scheme 2017,* and regulated vegetation protected under the *Vegetation Management Act 1999* (Qld), including Category B (remnant) vegetation.

A field ecological survey verified the presence of these ecological values. The field survey confirmed that the majority of the project area contained Category B (remnant; 30.54ha; Map 2, Appendix B). The remnant areas were characterised by least concern REs (12.5.1, 12.5.1e and 12.5.7; Map 2, Appendix B). The remainder of the site was Category X (non-remnant) vegetation at 6.58 ha (Map 2, Appendix B).

All flora and fauna species recorded during the field survey were least concern species under the *Nature Conservation Act 1992* (Qld). The remnant vegetation within the project area would provide suitable habitat for least concern species, and provide some habitat values for threatened species, particularly the endangered Koala. However, this species was not confirmed present in the project area during the field survey. There were two stream order one watercourses that were confirmed present within the project area (Map 2, Appendix B).

Two low-risk waterways recognised for fish passage (waterway barrier works) under the *Fisheries Act 1994* (Qld) were verified within the project area (Map 3, Appendix B). One crossing will be required to accommodate the proposed new road across the western waterway. These works will be undertaken as accepted development, in compliance with the relevant requirements of the *Accepted development requirements for operational work that is constructing or raising waterway barrier works (DPI, 2025)*

The following attributes on the *Biodiversity Areas Overlay Map* within the *SBRC Planning Scheme 2017* were verified in the project area during the field survey (Map 4, Appendix B):

- 30.54 ha of MSES Regulated Vegetation (Category B);
- 2.78 ha of MSES Wildlife Habitat (special least concern animal), the Short-beaked Echidna.

The remnant vegetation areas on the project area extend onto the neighbouring property to the north. Further afield within the landscape however, there is limited connectivity to other habitat due to agriculture and urbanisation. This lack of connectivity of habitat is a key threatening process operating on the project area. While the project area contains habitat values for threatened species, the ecosystem function of the habitat available would be reduced due to disturbance from surrounding land uses.

## 5.2 POTENTIAL IMPACTS

The development proposes to reconfigure the project area from one lot into 40 lots and will involve the construction of a road network (development plans shown in Appendix A). To undertake the subdivision, regulated vegetation and MSES clearing will be required, which will impact on mapped attributes on the *Biodiversity Areas Overlay Map* within the *SBRC Planning Scheme 2017.* Not all regulated vegetation and MSES on the project area however will be cleared. For the purpose of the impact assessment however it was assumed that vegetation clearing will occur on all proposed lots, with the exception of Lot 21, 29, 30, and 31 shown in the plans in Appendix A. As a result, the native vegetation to retained within the project area is 15.48 ha. This native vegetation was verified as MSES Regulated Vegetation (Category B) on the *Biodiversity Areas Overlay Map,* and Category B (remnant) least concern REs. Part of this retained habitat is also MSES Wildlife Habitat (special least concern animal) for the Short-beaked Echidna, of which 1.43 ha will be retained.

Based on the above, direct impacts to *Biodiversity Areas Overlay attributes* will include:

- 15.06 ha of MSES Regulated Vegetation (Category B);
- 1.35 ha of MSES Wildlife Habitat (special least concern animal) for the Short-beaked Echidna.

Direct impacts to regulated vegetation protected under the *Vegetation Management Act 1999* (Qld) will include:

- 15.06 ha of Regulated Vegetation (Category B) least concern REs.

There are also likely to be indirect impacts to ecological values expected during construction. Indirect impacts during construction can include but may not be limited to:

- Potential spread of invasive weed species during vegetation clearing and movement of machinery and vehicles;
- Noise and vibration as a result of increased human activity and machinery use;
- Generation of dust and degradation of air quality during vegetation clearing and construction on exposed soils;
- Generation of waste and potential contamination from storage of fuel, oil and chemicals; and
- Erosion, dust and sediment runoff from exposed soils.

## 5.3 IMPACT MANAGEMENT ACTIONS PROPOSED

The hierarchy of management principles has been implemented during the planning of this project to reduce environmental/ecological impacts. The management principles used include *avoidance, minimisation, mitigation and remediation strategies.* These principals are described below:

***Avoidance:*** *Designing the development areas to avoid direct impacts to ecological values (e.g., avoid vegetation clearing where practical).*

***Minimise:*** *Minimise direct and indirect impacts where they cannot be completely avoided.*

***Mitigate:*** *Implement mitigation and management measures during construction and operation to reduce direct and indirect cumulative impacts.*

***Remediate:*** *Actively rehabilitate impacted areas where possible to promote long term recovery.*

***Offset:*** *Provide suitable offsets under the Environmental Offsets Act 2014 (Qld) for activities that result in a significant impact to ecological values after all other management principles have been implemented.*

Impact compensatory measures have been defined based on the hierarchy of management principles. These have been outlined in Table 11.

**Table 11** Hierarchy of management

| Management Type | Strategy |
|---|---|
| Avoidance | Full avoidance of impacts to biodiversity area attributes and regulated vegetation within the project area was not possible without abandoning the proposed development. However, avoidance was prioritised as the first step in the mitigation hierarchy, with proposed lots strategically located in areas outside the Biodiversity Areas Overlay, primarily in the northwestern portion of the site. In addition, the watercourses have been fully avoided, ensuring the retention of these natural features and their critical role in maintaining ecological connectivity with neighbouring properties, particularly to the north. While some direct impacts to vegetation are unavoidable, the protection of watercourses ensures overall habitat connectivity is preserved. |
| Minimisation | While direct impacts to MSES cannot be entirely avoided, impacts have been minimised through the concentration of development areas within least concern REs only, and the retention of 40.57% of habitat within the project area. This includes 15.48 ha of MSES regulated vegetation (Category B least concern REs), of which 1.43 ha comprises MSES wildlife habitat.<br>The retention of these areas ensures the ongoing provision of key ecological functions, including the maintenance of habitat connectivity with neighbouring remnant vegetation, the preservation of important microhabitats (such as tree hollows, woody debris, and dense understorey), and the continued availability of resources that support both least concern fauna and the potential for use by threatened species. By securing these values within the development footprint, the project reduces the scale of ecological fragmentation and safeguards biodiversity resilience at the local landscape scale. |

| Management Type | Strategy |
|---|---|
| Mitigation | The following mitigation measures are recommended to be implemented during construction to reduce indirect impacts on ecological values:<br>• **Construction Environmental Management Plan (CEMP):** A CEMP will be developed to outline specific mitigation measures, including but not limited to: dust suppression, noise and vibration management, erosion and sediment controls, waste management, topsoil management, chemical storage and spill containment, protection of water quality and hydrology, traffic management (including speed restrictions), weed and pest control, washdown requirements for machinery and vehicles, and designated construction hours.<br>• **Weed Management**: Targeted control of restricted invasive plants under the Biosecurity Act 2014 (Qld) and Weeds of National Significance known to occur within the project area (e.g., Lantana camara). Weed removal will reduce edge effects and improve the habitat quality of retained vegetation, providing ecosystem benefits, particularly for threatened species that may occur.<br>• **Erosion and Sediment Control Plan (ESCP):** A site-specific ESCP will be prepared and implemented to minimise impacts associated with soil disturbance and sediment loss during vegetation clearing and construction works.<br>• **Best Practice Vegetation Clearing:**<br>o Establishment of clearly demarcated exclusion zones prior to clearing.<br>o Pre-clearance surveys by a suitably qualified and permitted Fauna Spotter Catcher to identify fauna presence.<br>o Sequential clearing to allow fauna to self-relocate into adjacent habitat.<br>o Supervision of all clearing works by a Fauna Spotter Catcher to safely relocate fauna, administer first aid, or facilitate transfer to a carer or vet where required.<br>o Compliance with AS4970 Protection of Trees on Development Sites and AS4687 Temporary Fencing and Hoarding.<br>• **Watercourse Protection:** Installation of sediment fences, diversion drains, or other temporary works to protect the integrity of watercourses from sedimentation or pollution during construction.<br>• **Fire Management:** Retained vegetation areas will incorporate appropriate firebreaks consistent with the Bushfire Management Plan developed for the project area, while minimising unnecessary clearing.<br>• **Habitat Enhancement:** Retained vegetation areas will be supplemented with habitat enhancement measures where feasible, including the retention and relocation of habitat logs during clearing to compensate for the loss of microhabitats and provide fauna refuge. |
| Remediation | No remediation is proposed as part of the development. Where vegetation clearing is to be undertaken will be subject to development of the 40 proposed dew lots. |
| Offsets | Through the implementation of avoidance, minimisation, and mitigation measures in accordance with the mitigation hierarchy, no residual impacts to MSES remain, and therefore environmental offsets under the *Environmental Offsets Act 2014* (Qld) are not required. |

# LEGISLATION REQUIREMENTS

## 6.1 SOUTH BURNETT REGIONAL COUNCIL PLANNING SCHEME – BIODIVERSITY AREAS OVERLAYS

The SBRC Planning Scheme's *Biodiversity Areas Overlay Map* contained two overlay attributes within the project area. These overlay areas include MSES Category B Regulated Vegetation and Wildlife habitat (special least concern).

The *Biodiversity Areas Overlay* is currently without a Code within the planning scheme. Instead the assessment benchmarks are within the Reconfiguring a Lot Code and the Rural Residential Zone Code for this development. The relevant assessment benchmark in the Reconfiguring a Lot Code is PO18 and in the Rural Residential Zone Code are PO12, PO13, and PO14.

An assessment against these assessment benchmarks have confirmed that the development complies with either the applicable acceptable outcomes, or alternatively, with the performance outcomes (Table 12).

## 6.2 STATE CODE 16: NATIVE VEGETATION CLEARING

The field ecological survey confirmed regulated vegetation within the project area. Any clearing proposed with the Category B (remnant) areas do not meet an exempt clearing purpose or accepted development, and therefore triggers referral to SARA with assessment required against *State Code 16: Native Vegetation Clearing*.

The relevant provisions for the reconfiguring a lot application are provided in Table 16.2 and 16.8 of *State Code 16: Native Vegetation Clearing*. An assessment against these assessment benchmarks have confirmed that the development complies with either the applicable acceptable outcomes, or alternatively, with the performance outcomes (Table 13 and Table 14).

**Table 12** South Burnett Regional Council Assessment benchmarks or assessable development - Biodiversity Overlay

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **Reconfiguring a Lot Code** | | |
| **Biodiversity Overlay** | | |
| **PO18** Development avoids, minimises or mitigates adverse impacts on environmentally significant areas and values. | **AO18.1** Development is confined to areas not mapped as high or general ecological significance on Overlay Map 05. OR<br>**AO18.2** Proposed boundaries do not create additional barriers to species movement. AND<br>**AO18.3** Proposed allotments do not create circumstances where additional accepted development clearing of protected vegetation may occur. | **Complies with AO18.2 and AO18.3.**<br>The project area contains MSES Regulated Vegetation (Category B) and Wildlife Habitat (special least concern) mapped on Overlay Map 05, which cannot be fully avoided due to the scale of the reconfiguring a lot application. Nevertheless, the design of the proposed lots prioritises avoidance by locating development areas primarily within the northwestern portion of the site, outside of the Biodiversity Overlay, and by avoiding clearing along the mapped watercourses.<br>Impacts have been further minimised through the retention of 15.48 ha of MSES Regulated Vegetation (Category B remnant) and 1.43 ha of Wildlife Habitat for special least concern species, equating to 40.57% of habitat within the project area. These retained areas provide for ongoing species movement within the site and maintain connectivity to adjacent remnant vegetation to the north identified on the Biodiversity Overlay. By maintaining ecological function along the retained watercourses, the proposed development does not introduce additional barriers to species movement and is therefore consistent with AO18.2.<br>Further, the inclusion of building envelopes on Lots 21, 29, 30, and 31 ensures that the watercourses and associated habitat on these lots are preserved for connectivity purposes. This approach guarantees that sufficient vegetation is retained to prevent circumstances where additional accepted development clearing of protected vegetation may occur, thereby satisfying AO18.3. |
| **Rural Residential Zone Code** | | |
| **Biodiversity Overlay** | | |
| **PO12** Areas of environmental significance, including biodiversity values, are identified, protected and enhanced. | **AO12.1** Uses and associated works are confined to areas not identified on Overlay Map 05. OR<br>**AO12.2** Development is compatible with the environmental values of the area. OR<br>**AO12.3** Where development within an area identified on Overlay Map 05 is unavoidable, measures recommended by a suitably qualified ecologist are incorporated to protect and retain the environmental values and underlying ecosystem processes within or adjacent to the development project area to the greatest extent practical. | **Complies with AO12.2 and AO12.3**<br>The project area contains Regulated Vegetation (Category B) and Wildlife Habitat identified on Overlay Map 05. While full avoidance of these mapped values was not possible without abandoning the proposed reconfiguring a lot application, the design process has prioritised avoidance and minimisation of impacts wherever practicable. Development has been directed towards the northwestern portion of the site, outside mapped biodiversity areas, and the mapped watercourses have been fully avoided through the use of building envelopes to ensure their ecological function and connectivity are retained.<br>In addition, measures recommended by a suitably qualified ecologist have been incorporated into the design to protect and maintain environmental values. This includes:<br>• Retention of 15.48 ha of Category B Regulated Vegetation and 1.43 ha of Wildlife Habitat, representing 40.57% of the site's MSES values.<br>• Preservation of habitat connectivity to adjoining remnant vegetation to the north, facilitated by the protection of riparian corridors.<br>• Establishment of building envelopes on Lots 21, 29, 30, and 31 to ensure the long-term retention of watercourse-associated vegetation within these allotments.<br>• Recommendations provided for mitigation measures to be implemented during construction to reduce direct impacts to biodiversity values, particularly fauna within the project area.<br>Through these measures, the development is considered compatible with the environmental values of the site (AO12.2) and incorporates ecological recommendations to retain and protect biodiversity values and underlying ecosystem processes to the greatest practicable extent (AO12.3). |

| | | |
|---|---|---|
| **PO13** Biodiversity values of identified areas of environmental significance are protected from the impacts of development | **AO13** Development adjacent to Protected Areas identified on Overlay Map 05 is set back a minimum of 100m from the park boundaries in the absence of any current 'Management Plans' for these areas. | **Complies with PO13**<br>The proposed development is not located adjacent to a Protected Area identified on Overlay Map 05. As such, the requirement for a 100m setback from park boundaries does not apply. Accordingly, the biodiversity values of identified areas of environmental significance will be protected from development impacts, and the proposal is considered to comply with PO13 and AO13 |
| **PO14** There are no significant adverse effects on water quality, ecological and biodiversity values. | **AO14.1** Uses and associated works are confined to areas outside overland flow paths and natural drainage features. AND<br>**AO14.2** All buildings, on-project area effluent disposal, external activities or storage areas are located 100m from the top of the bank of a river, creek, stream or wetland identified on Overlay Map 05.<br>Note–This setback does not apply to equipment such as pumps that are necessary to access water or waterway crossings.<br>AND<br>**AO14.3** The Waterway Corridors identified on Overlay Map 05 are maintained in a natural state. | **Complies with PO14**<br>While some proposed lots (Lots 21, 29, 30 and 31) occur adjacent to the mapped watercourses, building envelopes have been designed to concentrate clearing and associated construction away from these sensitive features, ensuring that no significant adverse effects on water quality, ecological values, or biodiversity values will occur to these features.<br>It is acknowledged however that there is no economically viable option to satisfy the assessment outcomes with wastewater treatment systems required to be located 100m of the top of bank of the watercourses. The proposed development however is able to comply with PO14 ensuring there are no significant adverse effects on water quality, ecological and biodiversity values. This is through the implementation of appropriate wastewater management measures consistent with the *Queensland Plumbing and Wastewater Code* (QPW Code) and relevant plumbing and drainage legislation.<br>The QPW Code provides setback distances for on-site wastewater disposal areas based on the level of treatment:<br>• 30m from the top of the bank of a watercourse for secondary treatment systems; and<br>• 10m from the top of the bank of a watercourse for advanced secondary treatment systems.<br>Based on site layout, Lots 21, 29, 30 and 31 are the most sensitive in terms of setback requirements and will utilise advanced secondary treatment systems. These systems can be fully accommodated within the designated building envelopes, all of which are located more than 36m from the defining banks of the watercourses, ensuring compliance with the QPW Code and ensuring no significant adverse effects on water quality, ecological and biodiversity values.<br>These measures will ensure that on-site wastewater disposal will not result in water pollution or degradation of ecological or biodiversity values, thereby satisfying the intent of PO14. |

**Table 13**
Table 16.2
eneral within
tate Code 16
Native
Vegetation
Clearing

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **General** | | |
| **PO1** Clearing of vegetation is consistent with any notice requiring compliance on the land subject to the development application, unless a better environmental outcome can be achieved. | No acceptable outcome is prescribed. | N/A |
| **PO2** Clearing of vegetation is consistent with vegetation management requirements for particular regulated areas unless a better environmental outcome can be achieved. | No acceptable outcome is prescribed. | N/A |
| **PO3** Clearing of vegetation in a legally secured offset area:<br>1. is consistent with the offset delivery plan; or<br>2. is consistent with an agreement for the offset area on the land subject to the development application; or<br>3. only occurs if an additional offset is provided. | No acceptable outcome is prescribed. | N/A |

**Table 14**
Table 16.8 Material change of use and / or configuring a t for all other purposes, within State ıde 16 Native Vegetation Clearing

| Performance outcomes | Acceptable outcomes | Response |
|---|---|---|
| **Clearing avoids and minimises impacts** | | |
| **PO80** Clearing of vegetation and adverse impacts of clearing vegetation do not occur unless the application has demonstrated that the clearing and the adverse impacts of clearing have been:<br>1. reasonably avoided; or<br>2. reasonably minimised where it cannot be reasonably avoided. | No acceptable outcome is prescribed. | **Complies with PO80**<br>To avoid adverse impacts, the proposed development prioritised the use of areas eligible for clearing under 'exempt clearing works' within the Category X (non-remnant) area located in the northwestern portion of the project area (Map 2, Appendix B). However, developing solely within this area was deemed unviable due to urban planning objectives and cost constraints.<br>The project area is surrounded by non-remnant land where other residential developments have already been approved, reducing habitat connectivity and constraining ecological linkages primarily to the north. This connectivity has been carefully considered through the design of larger lots along the watercourses which flow from south to north, and the use of building envelopes to focus development within these sites. This approach has ensured minimisation of clearing along the watercourses, thereby retaining connectivity of habitat to the north, where additional regulated vegetation (Category B) provides suitable fauna habitat.<br>As a result of this design, 40.57% of the project area has been retained of regulated vegetation, including 15.06 ha of Category B (remnant) least concern REs. In this respect, the proposed development balances the need to provide residential lots with the protection of ecological values, ensuring that vegetation clearing has been reasonably avoided and, where unavoidable, reasonably minimised. |
| **Clearing associated with wetlands** | | |
| **P81** Clearing of vegetation within a natural wetland and/or within 100 metres of the defining bank of a natural wetland maintains the composition, structure and function of any regional ecosystem associated with any natural wetland to protect all of the following:<br>1. bank stability by protecting against bank erosion;<br>2. water quality by filtering sediments, nutrients and other pollutants;<br>3. aquatic habitat;<br>4. terrestrial habitat. | **AO81.1** Clearing does not occur in a natural wetland or within 100 metres of the defining bank of any natural wetland.<br>OR<br>**AO81.2** Clearing within 100 metres of the defining bank of any natural wetland:<br>1. does not occur within 10 metres of the defining bank of any natural wetland; and<br>2. does not exceed widths in reference table 1 in this code. | N/A no wetland occurs on the project area |
| **PO82** Where clearing of vegetation in a regional ecosystem associated with a natural wetland does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, an offset is provided for any acceptable significant residual impact. | No acceptable outcome is prescribed. | N/A no wetland occurs on the project area |

| | | |
|---|---|---|
| **Clearing associated with watercourses and drainage features** | | |
| **PO83** Clearing of vegetation within a watercourse and /or drainage feature and/or within the relevant distance (listed in reference table 2) of a watercourse and/or drainage feature, maintains the composition, structure and function of the regional ecosystem associated with the watercourse and/or drainage feature to protect all of the following:<br>1. bank stability by protecting against bank erosion;<br>2. water quality by filtering sediments, nutrients and other pollutants;<br>3. aquatic habitat;<br>4. terrestrial habitat | **AO83.1** Clearing does not occur in any of the following areas:<br>1. inside the defining bank of a watercourse or drainage feature; and<br>2. within the relevant distance of the defining bank of any watercourse or drainage feature in reference table 2 of this code.<br>**OR**<br>**AO83.2** Clearing within any watercourse or drainage feature, or within the relevant distance of the defining bank of any watercourse or drainage feature in reference table 2 of this code:<br>1. does not exceed the widths in table reference table 1 of this code; and<br>2. does not occur within 10 metres of the defining bank, unless clearing is required into or across the watercourse or drainage feature. | **Complies with PO83**<br>Clearing for the proposed lots has avoided all mapped watercourses located in the central and eastern portions of the project area. Lots within proximity to these features (Lots 21, 29, 30, and 31) have been designed as larger lots and provided with building envelopes to ensure clearing and construction are confined outside the relevant distance of the watercourses. Under Reference Table 2, the required setback for a stream order 1 watercourse is 10 m. The building envelopes for these lots are all located more than 50 m from the defining bank (Map 2, Appendix B and plans provided in Appendix A).<br>One road crossing (New Road 2) is required over the central watercourse to provide access through the subdivision. The crossing has been designed at a 20 m width to accommodate a formed public road and associated services (electricity and water). The clearing required for this crossing amounts to 0.1 ha of Category B least concern RE12.5.1e/12.5.7 (Mid-dense). While the width exceeds that specified in Reference Table 2, the clearing is consistent with the allowable area of less than 0.5 ha.<br>This small and localised clearing is not expected to compromise the composition, structure, or function of the regional ecosystem associated with the watercourse, particularly as the vegetation immediately north of the crossing is Category X (non-remnant) vegetation. Bank stability will be managed through erosion and sediment control measures during construction, ensuring protection of the watercourse and minimising impacts on water quality, aquatic habitat, and terrestrial habitat.<br>Accordingly, the proposed development is considered to comply with PO83. |
| **PO84** Where clearing of vegetation in a regional ecosystem associated with a watercourse and/or drainage feature does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, an offset is provided for any acceptable significant residual impact. | No acceptable outcome is prescribed. | **Complies with PO84**<br>Clearing within the watercourse is expected to maintain the composition, structure and function of the regional ecosystem as explained above for PO83. Hence there is no requirement for an offset. |
| **Connectivity** | | |
| **PO85** Regional ecosystems on the subject land and any adjacent land, retain sufficient vegetation to maintain:<br>1. ecological processes; and<br>2. ensure the regional ecosystem remains in the landscape despite threatening processes | **AO85.1** Clearing occurs in accordance with reference table 3 in this code. | **Partially complies with PO85**<br>The project area is located within a coastal bioregion and complies with the clearing criteria outlined in Reference Table 3, as follows:<br>• Clearing does not occur in areas of vegetation that are less than 10 hectares. The project area is 37.12 ha in size and contains 30.52 ha of Category B (remnant vegetation).<br>• Clearing does not reduce the extent of vegetation to less than 10 hectares. A total of 15.06 ha of Category B (remnant vegetation) will be retained within the project area.<br>• Clearing does not occur in areas of vegetation less than 100 metres wide. All vegetation in the project area is >100 m wide<br>• Clearing does not reduce the width of vegetation to less than 100 metres. The largest portions of retained vegetation are located within Lots 29 and 31, where widths greater than 100 m are maintained. Vegetation retained on Lot 21 also exceeds 100 m in width and is connected to Category B (remnant) vegetation extending east beyond the property boundary.<br>• Clearing does not occur where the extent of vegetation on the subject lot(s) is reduced to, or less than, 30 per cent of the total area of the lot(s). 40.57% of vegetation within the lot will be retained by the development. The areas of retention are on Lots 21, 29, 30 and 31.<br>Through these measures, the proposal ensures that regional ecosystems will be maintained at sufficient scale and configuration to sustain ecological processes and persist in the landscape despite threatening processes |

| | | |
|---|---|---|
| **Soil erosion if the local government is not the assessment manager for the development application** | | |
| **PO86** Clearing does not result in accelerated soil erosion within or outside the land the subject of the development application. | **AO86.1** Clearing only occurs if an erosion and sediment control plan is developed and implemented to prevent soil erosion and instability resulting from the clearing. | **Complies with AO86.1**<br>An Erosion and Sediment Control Plan will be developed and implemented for the development, as described in *Table 11*<br>*Hierarchy of management.* |
| **Salinity** | | |
| **PO87** Clearing within 100 metres of a salinity expression area does not contribute to or accelerate land degradation through either of the following:<br>1. waterlogging;<br>2. the salinisation of groundwater, surface water or soil. | **AO87.1** Clearing does not occur within 100 metres of a salinity expression area. | **Complies with AO87.1**<br>No salinity expression areas have been recorded on the project area. There is no evidence of the following:<br>• No ground surfaces were waterlogged<br>• No intermittent streams were flowing unusually<br>• No areas of bare soil or presence of crystals or salts present<br>• No road deterioration or crumbling.<br>Therefore, clearing is not proposed within 100m of a salinity expression area as none have been observed within the project area. Also, the development will not result in any land degradation through waterlogging or salinisation as:<br>• Stormwater runoff will be managed appropriately.<br>• The clearing is not adjacent to an area with a sudden change in geology (i.e., major change in landzone) and therefore is less susceptible to salinity impacts.<br>• The development proposes to retain the watercourse areas<br>Therefore, the proposed development complies with AO87.1 |
| **Conserving endangered and of concern regional ecosystems** | | |
| **PO88** Clearing of vegetation maintains the composition, structure and function of endangered regional ecosystems and/or of concern regional ecosystems. | **AO88.1** Clearing does not occur in an endangered regional ecosystem or an of concern regional ecosystem.<br>OR<br>**AO88.2** Total clearing of endangered regional ecosystems and of concern regional ecosystems combined does not exceed the widths prescribed in reference table 1 of this code.<br>OR<br>**AO88.3** Total clearing of endangered regional ecosystems and of concern regional ecosystems combined does not exceed areas prescribed in reference table 1 of this code. | **Complies with AO88.1**<br>The project area does not contain endangered or of concern REs (Map 2, Appendix B) and as such there is no clearing proposed within these REs |

| | | |
|---|---|---|
| **PO89** Where clearing of vegetation in an endangered regional ecosystem or an of concern regional ecosystems does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, the cleared area:<br>1. is rehabilitated; or<br>2. where the cleared area cannot be rehabilitated, an offset is provided for any acceptable significant residual impact. | No acceptable outcome is prescribed. | N/A. The project area does not contain endangered or of concern REs (Map 2, Appendix B) and as such there is no clearing proposed within these REs |
| **Essential habitat excluding essential habitat for Phascolarctos cinereus (koalas) if development is assessable under Schedule 10, Part 10 of the Planning Regulation 2017** | | |
| **PO90** Clearing of vegetation in a regional ecosystem that is an area of essential habitat maintains the composition, structure and function of the regional ecosystem for each protected wildlife species individually. | **AO90.1** Clearing does not occur in essential habitat.<br>OR<br>**AO90.2** Clearing in essential habitat does not exceed the widths prescribed in reference table 1 of this code.<br>OR<br>**AO90.3** Clearing in essential habitat does not exceed the areas prescribed in reference table 1 of this code. | **Complies with AO90.1**<br>The project area does not contain essential habitat (Vegetation Management Supporting Map provided in Appendix E) and as such there is no clearing proposed within essential habitat. |
| **PO91** Where clearing of vegetation in a regional ecosystem that is an area of essential habitat does not maintain the composition, structure and function of the regional ecosystem, and cannot be avoided and has been mitigated, an offset is provided for any acceptable significant residual impact for each protected wildlife species individually | No acceptable outcome is prescribed. | N/A. The project area does not contain essential habitat (Vegetation Management Supporting Map provided in Appendix E) and as such there is no clearing proposed within essential habitat. |
| **Acid sulfate soils if the local government is not the assessment manager for the development application** | | |
| **PO92** Clearing does not result in, or accelerate, disturbance of acid sulfate soils or changes to the hydrology of the location that will result in either of the following:<br>1. aeration of horizons containing iron sulphides;<br>2. mobilisation of acid or metals. | **AO92.1** Clearing does not occur in land zone 1, land zone 2 or land zone 3.<br>OR<br>**AO92.2** Clearing in land zone 1, land zone 2 or land zone 3 in areas below the five metre Australian Height Datum only occurs where:<br>1. mechanical clearing does not disturb the soil to a depth greater than 30 centimetres; and<br>**2.** acid sulfate soils are managed consistent with the Queensland Acid Sulfate Soil Technical Manual. | N/A Local government is the assessment manager for the development application. |

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CONSULTING ENGINEERS AND PROJECT MANAGERS PTY LTD
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# Preliminary Stormwater Management Report

Cameron Ansell

*Lot 59 SP184725*

***Wondai QLD 4610***

| Version | Authored By | Checked By | Approved By | Date |
|---|---|---|---|---|
| 1.0 | Jordan Picton | Philip De Guzman | Allen Christensen | 05 September 2025 |
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## 1. Introduction

This preliminary stormwater management report forms part of the requirements for a rural residential subdivision application on Lot 59 SP184725. The proposed development consists of 36 rural residential lots of similar size (4000-6130m$^2$) and four larger lots that each feature a watercourse within the lot boundaries. The proposed subdivision features two (2) internal roads for the purposes of access to internal lots, both accessed from the corner of Hustons and Hines Roads. The total site area of the lot is 37.12 hectares.

A proposed site layout supplied by the client (Subdivision 59SP184725 Concept Layout 5A), dated 21 July 2025, illustrates the proposed subdivision layout and boundaries (Figure 4). It should be noted that minor changes to lot numbers or boundary locations may occur prior to development approval without affecting the findings of this stormwater management report. If significant changes to the planned subdivision layout occur prior to development approval, an update to the preliminary stormwater management report may be required.

ATC Consulting Engineers and Project Managers have been engaged on behalf of the applicant to prepare a stormwater management plan for the proposed development. This report will address the pre- and post-development stormwater flows, and any detention requirements, to demonstrate that the post-development flows can be adequately managed without any additional impacts on other properties or infrastructure. This report will also demonstrate how to control stormwater within the site, so that all overland flows can be discharged in a safe and effective manner.

## 2. Site Characteristics

### 2.1. Pre-development site description

The site is located on Lysdale Road, Wondai, as shown in Figure 1.

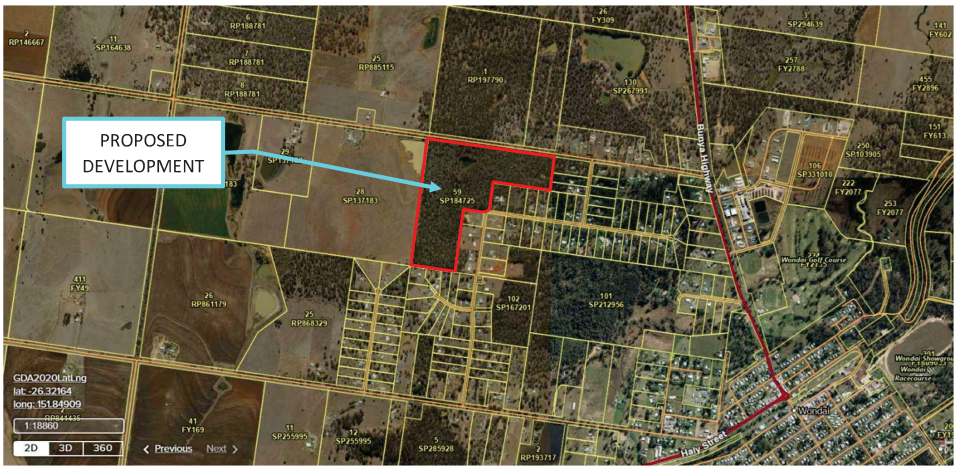



*Figure 1 - Proposed Development Site, Lysdale Road Wondai (Lot 59 SP184725) (Source: Queensland Globe).*



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The existing site is a vacant lot, predominantly consisting of a medium density of small trees and shrubs, with many tall trees scattered throughout the site. A large retention basin (dam) is located near the centre of the site, within the watercourse in proposed Lot 30. The basin is identified in the Queensland Globe "watercourses" overlay as a perennial water feature (Figure 3), with an outlined surface area of approximately 7,800 m². The depth of the basin is not known.

A second, smaller retention basin is located along the eastern watercourse within proposed Lot 21. This basin has an approximate surface area of 350m² and is not marked within the "watercourses" overlay within Queensland Globe and therefore will conservatively not be considered to act as significant retention within the site.

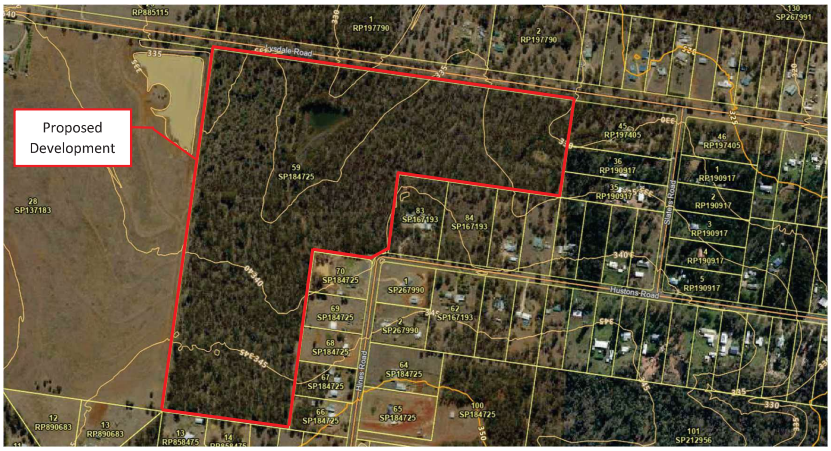



*Figure 2 – Aerial Image of Site (Source: Queensland Globe).*

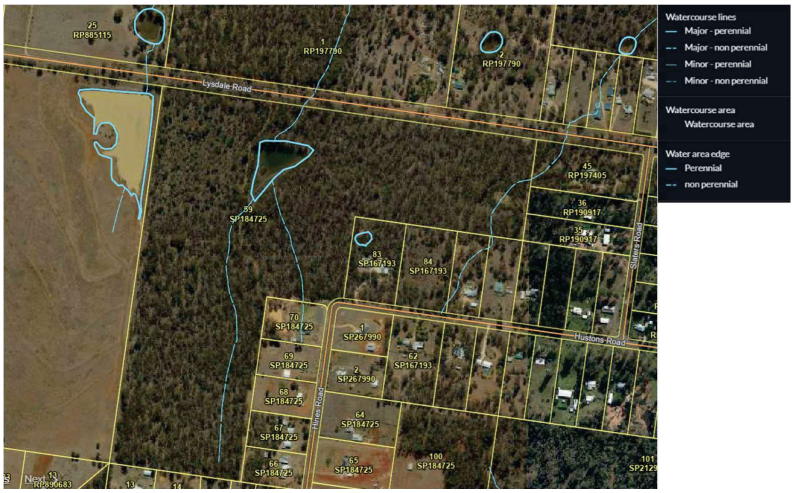



*Figure 3 – Aerial Image of Site with Watercourses Overlay (Source: Queensland Globe).*



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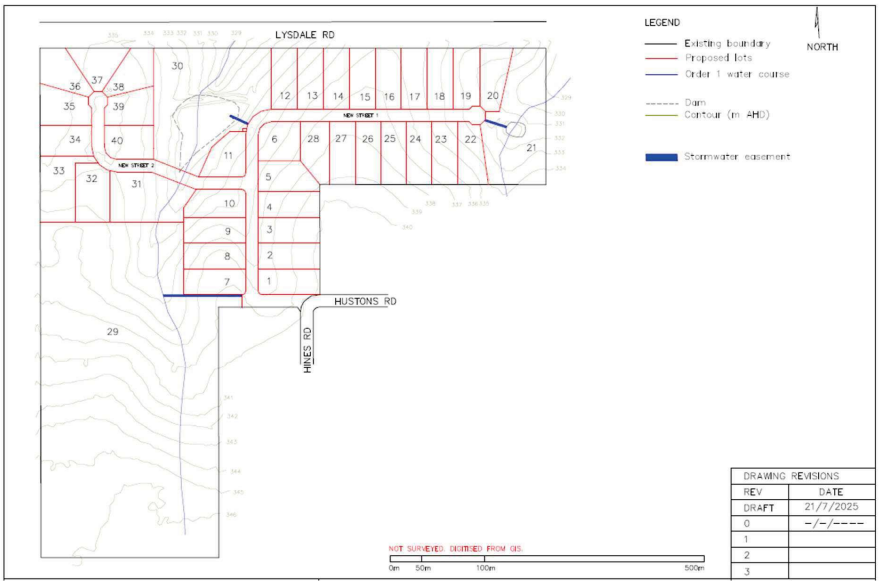



*Figure 4 – Proposed Subdivision Layout 5A (Stormwater) – Lot 59 SP184725 – Dated 21/7/2025 (Source: Cameron Ansell).*

The existing lot is situated within a rural residential zone, in the 4000m$^2$ RR1 precinct as per the SBRC Planning Scheme zoning map as shown in Figure 5. The RR1 precinct identifies locations near urban centres where smaller rural residential allotments are preferred. The site borders onto other rural residential – RR1 lots to the south and east (upstream) and to rural lots to the north and west (downstream).

As per Table SC3.1.3 of the SBRC Planning Scheme, the demand generation for a stormwater trunk infrastructure network within a rural residential (RR1) zone is 0.2 impervious hectares per development hectare (0.2 fraction impervious). This fraction impervious will be used to design all table drains within the road reserves or planned stormwater drainage easements. See Figure 6 for an extract of Table SC3.1.3 of the SBRC Planning Scheme.



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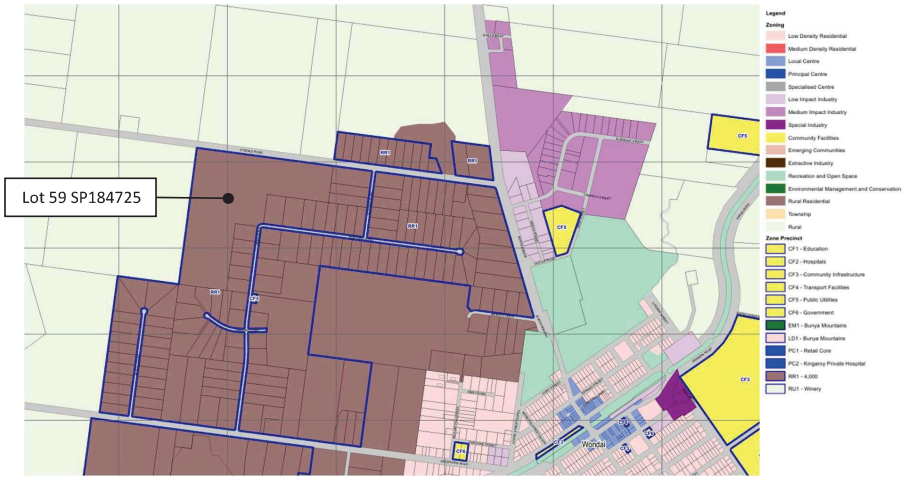



*Figure 5 – Zoning Map of Site and Surrounds.*

*(Source: South Burnett Regional Council Planning Scheme: Zone Map – 06 Wondai).*

**Table SC 3.1.3–Planned density and demand generation rate for a trunk infrastructure network**

| Column 1 Zone | Column 2 Precinct/Location | Column 3 Planned density | | Column 4 Demand generation rate for a trunk infrastructure network | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Non-residential plot ratio | Residential density (dwellings/ dev ha) | Water supply network (EP / dev ha) | Wastewater network (EP / dev ha) | Stormwater network (imp ha/dev ha) | Transport network (vpd/dev ha) | Parks and land for community facilities network (persons / dev ha) |
| **Residential development** | | | | | | | | |
| Emerging Community | Kingaroy | - | 16.3 | 29.2 | 29.2 | 0.7 | 163.3 | 29.2 |
| Emerging Community | Other Areas | - | 10.4 | 23.2 | 23.2 | 0.6 | 103.8 | 23.2 |
| Low density residential | Kingaroy | - | 11.1 | 23.3 | 23.3 | 0.6 | 111.3 | 23.3 |
| Low density residential | Other Areas | - | 10.4 | 23.2 | 23.2 | 0.6 | 103.8 | 23.2 |
| Low density residential | LD1 - Bunya Mountains | - | 4.5 | 10.4 | 10.4 | 0.6 | 45.0 | 10.4 |
| Medium density residential | | - | 16.6 | 30.8 | 30.8 | 0.7 | 165.7 | 30.8 |
| Rural residential | | - | 0.5 | 1.1 | 1.1 | 0.1 | 4.8 | 1.1 |
| Rural residential | RR1 - 4,000 | - | 2.3 | 5.2 | 5.2 | 0.2 | 22.5 | 5.2 |
| Rural | | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Township | | - | 7.0 | 16.2 | 16.2 | 0.4 | 70.0 | 16.2 |

*Figure 6 – Extract of Table SC 3.1.3 of the SBRC Planning Scheme.*

*(Source: South Burnett Regional Council Planning Scheme – Version 2.0).*

The existing dam / retention basin located in Lot 30 has a formed bund to the north and an overflow outlet to the northeast. The dam was filled with water at the time of inspection, being slightly below the overflow outlet invert level (approximately 0.25-0.5m below). The formed bund has a steep drop off on the northern side, with varying height up to about 3m relative to the base, as estimated from LiDAR contours (0.25m intervals). Refer to Figures 7-9 for site photographs of the dam, formed bund and overflow outlet.



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*Figure 7 – Site Photo – On-site Retention Basin.*




*Figure 8 – Site Photo – On-site Retention Basin – Looking Towards Overflow Outlet.*




*Figure 9 – Site Photo – From Overflow Outlet Looking North.*

## 3. Stormwater Analysis

### 3.1. Point of Discharge

The majority of stormwater runoff from the existing lot drains to the retention basin within proposed Lot 30 which discharges under Lysdale Road via an existing 450mm diameter concrete culvert. The remaining stormwater from within the site drains toward the northern boundary (and northeast / northwest corners) into the table drains on Lysdale Road. These table drains convey flows in the direction of the road grade to one of three culvert crossings under Lysdale Road, each identified in Queensland Globe as non-perennial watercourses (refer Figure 10). These three watercourses are upstream branches of the same watercourse, with all flows from the site ultimately converging at the same downstream retention basin, before discharging to Dingo Creek. Therefore, the ultimate point of discharge for all site runoff is considered to be the same.




*Figure 10 – Aerial Image of Surrounding Site Area (Source: Queensland Globe).*

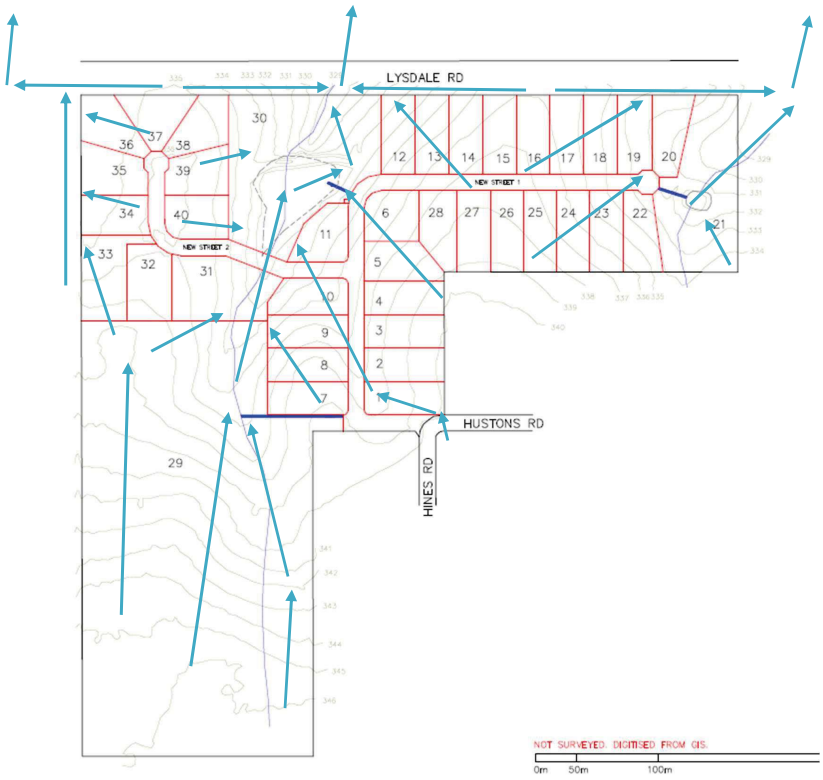



*Figure 11: Lot Pre-Development Catchment Plan.*



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The point of discharge for the post-development site will remain the same as the pre-development site, being the existing watercourses within the site and the roadside table drains along Lysdale Road. This development stage will only modify surface grades associated with internal roads, table drains, and swale drains within designated drainage easements. Any future lot-level grading or changes in levels within the subdivision is not expected to alter the ultimate discharge points of the site.

Figure 12 shows the post-development catchment plan with the inclusions of internal roads, table drains and easements (swale drains) required for the appropriate management of stormwater from the site. The majority of runoff from lots located on the southern side of the new internal roads will be directed into the road-reserve table drains, from which flows will discharge into the site's natural watercourses. The proposed drainage easements through rural residential lots will facilitate the conveyance of these flows to the appropriate discharge locations.

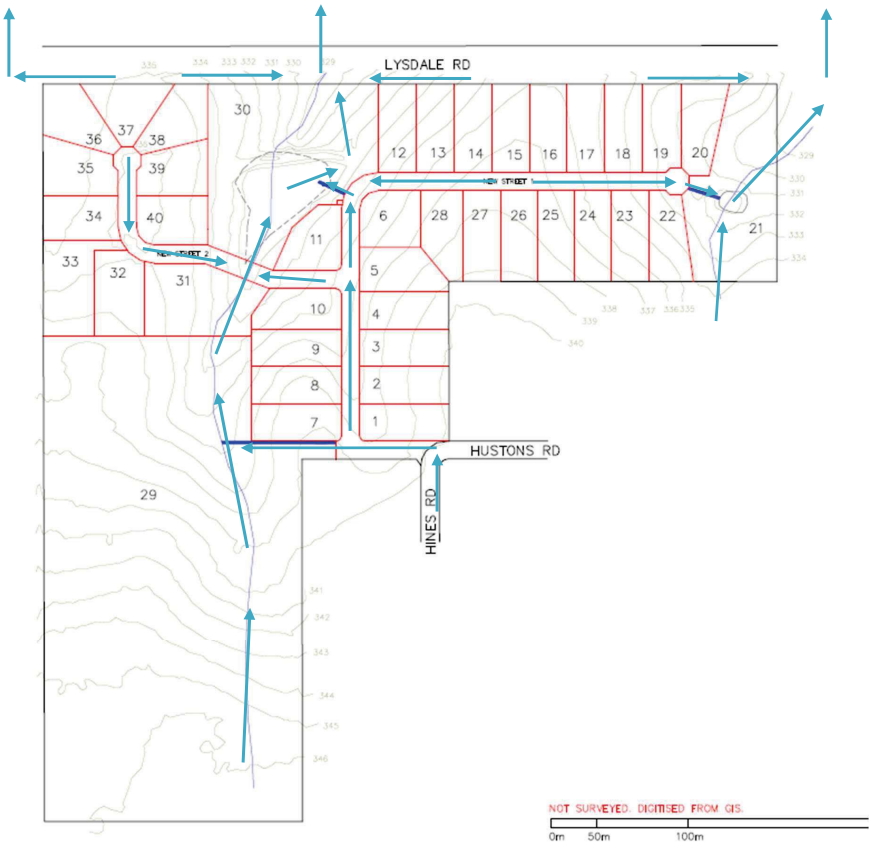



*Figure 12: Lot Post-Development Catchment Plan.*



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Evidence of erosion was observed at the outlet of the existing concrete culvert located within the site at the corner of Huston and Hines Road (Figures 13 & 14). The culvert conveys runoff from the opposite side of the roads, draining an estimated catchment area of approximately 6.25 hectares. At this outlet, the surrounding ground level is higher than the invert pipe invert, with the formed dish likely acting as a stilling basin.

To mitigate the erosion issues, the invert level of the proposed table drain along the northern side of the new internal road (extending west from the Huston Road and Hines Road corner) should be set to match the culvert outlet invert. The table drain should then grade westward to ensure positive drainage. Rock scour protection underlain by geotextile should also be provided at the culvert pipe outlet to reduce any potential future scouring and erosion.




*Figure 13: Concrete culvert outlet – from above (Cnr Hustons & Hines Road).*



*Figure 14: Erosion at concrete culvert outlet (Cnr Hustons & Hines Road).*



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### 3.2. Flood Hazard Analysis

The northwest corner of the site is situated within a mapped flood zone, as defined in the SBRC Flood Hazard Overlay Mapping (Figure 15). However, the resolution of the mapping is coarse, with a grid size of approximately 25 m × 25 m and may possibly be further offset from the true cadastral boundaries. This results in an overestimation of flood extents when compared to the LiDAR contours and site observations. The limitations of the coarse resolution are evident in Figure 15, where the mapping transitions to a more refined model along Dingo Creek and the apparent flood width reduces by more than half.

The location of the overlay within the site approximately coincides with the existing retention basin (dam) and its overflow. Downstream backwater effects are unlikely, as the small basin immediately downstream is approximately 10 m lower than the site's lowest point, and Dingo Creek is a further 25 m lower again. If flooding were caused by downstream backup, large areas of the lower-lying downstream floodplain would also be inundated, which is not the case. Therefore, flooding within the site is considered localised, caused by ponding above the dam overflow level.

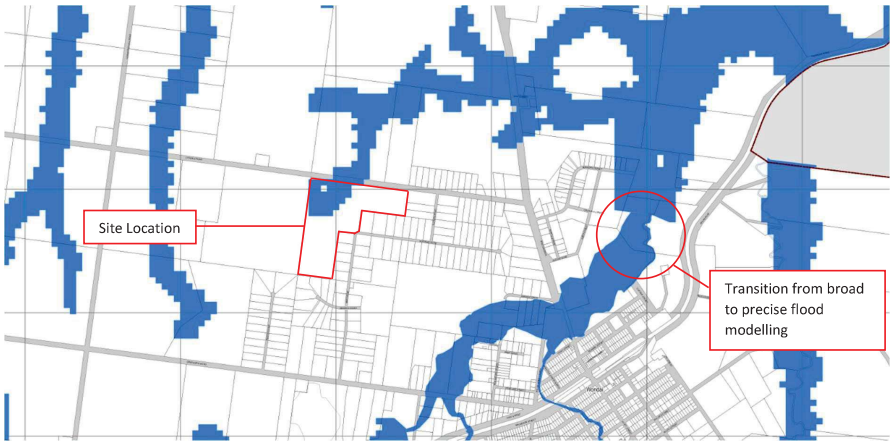



*Figure 15: Flood Hazard Overlay of Site Area (Source: SBRC Flood Hazard Overlay – Overlay Map 3.6).*

A Rational Method assessment was undertaken for the upstream catchment draining to the dam:

- Catchment area = 26.27 ha
- Time of concentration = 26 minutes
- Peak inflow (Q100) = 7.20 m³/s

If this peak flow were sustained continuously, the dam would take approximately 40.5 minutes to rise 1.5 m to the overtopping level (from its approximate surveyed water level). Since the critical storm duration is 26 minutes, this 40.5-minute rise time is a conservative estimate and does not account for discharge via the overflow outlet or the reduction in peak flows for a longer storm duration.

Note that these calculations are based on the dam being partially full before the storm event, being 1.5m below the overtopping level (0.5m below the low-level overflow outlet), based on the approximate water level at the time LiDAR survey information was taken for the area.

The dam's existing low-level overflow outlet has a 4.3 m wide base at 332.25 m AHD and a 24 m wide top at 333.25 m AHD, giving an approximate flow area of 14.15 m². Note, the levels of the base and top of the overflow outlet are limited to 0.25m intervals due to the precision of the LiDAR data used and may differ slightly. Using Manning's Formula:

- Maximum outflow capacity (1.0 m depth) = 30.98 m³/s
- 333.00 m AHD water level outflow capacity (0.75 m depth) = 15.61 m³/s
- 332.75 m AHD water level outflow capacity (0.50 m depth) = 6.12 m³/s

From this analysis it is seen that the existing overflow outlet exceeds the peak inflow (7.20 m³/s) between the 0.50 m and 0.75 m depths. Note, the outflow capacity could only be estimated at 0.25 m intervals due to the precision of the LiDAR data used. Based on linear interpolation, the maximum water level at the existing overflow outlet is estimated to be 0.55 m above the base of the low-level outlet (332.80 m AHD). This estimate is considered to be reasonable due to the conservative assumptions used in this flood analysis method. It is assumed that the water level will not rise above this point where the maximum outflow is greater than the maximum inflow and will therefore be used as the design flood level for a 1 in 100-year storm.

This assumption is conservative as it does not take into account any reduction of inflow over the critical design storms duration. If more accurate contour data is obtained at the location of the dam outlet, a further reduction may be possible to the design flood level.

ATC recommends shifting the overflow outlet from its existing position at the northeast of the basin to the northwest to reduce the impacts of stormwater on the planned building footprint of proposed Lot 30 (Figure 16). The shifted outlet shall have the same approximate dimensions (base width and side slopes) as the existing outlet as to not create a greater volume of discharge leaving the site in minor and major storm events. The existing outlet should be filled to match the level of the existing formed bund at the north of the dam. The new outlet must be graded to direct flows to the existing waterway, thereby maintaining the same point of discharge from the basin.

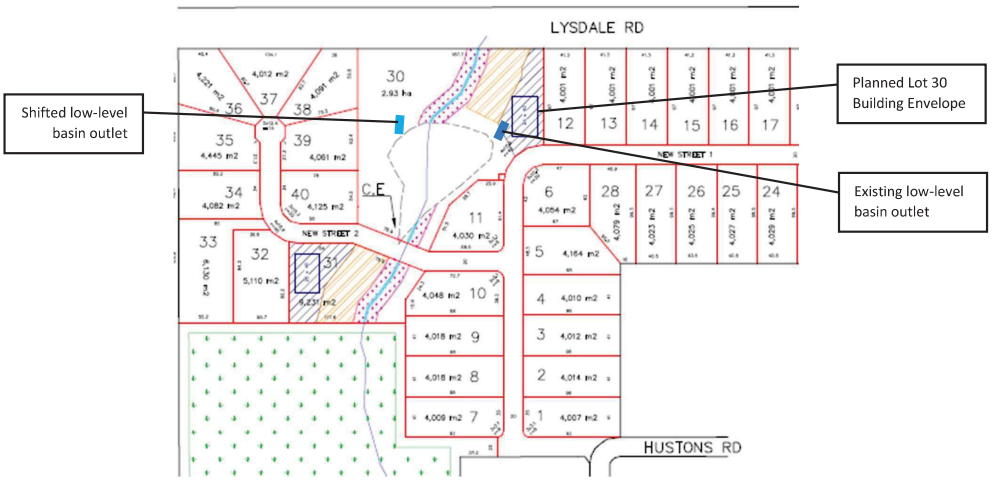



Figure 16: Extract from Concept Layout 5A Ecological Considerations – *Dated 21/7/2025 – Marked Up (Source: Cameron Ansell).*



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The shifted outlet is to have its base level lowered by 0.5m to 331.75m AHD. This adjustment will reduce the flood level within the site, thereby enabling lower finished floor levels and providing a practical design solution. The hydraulic analysis method adopted for this assessment assumes a starting water level equal to the base of the low-level outlet and does not explicitly account for potential storage within the basin. On this basis, lowering the base level of the outlet is not expected to materially affect either the maximum discharge volume from the basin or the maximum water level relative to the base of the overflow outlet.

The base level of the site should not be reduced by more than 0.5 m so that the majority of the existing basin is retained, due to it being marked as a perennial water feature within the "watercourses" overlay within Queensland Globe (Figure 3), being treated as part of the natural drainage system of Dingo Creek.

Based on the adopted analysis, flood levels are not expected to rise more than 0.55m above the base of the overflow outlet during a major storm event. Therefore, the maximum expected water level is 332.30 m AHD (localised flood level). The finished floor levels are to be 500mm above this height to account for any freeboard or wave effects of flowing water. Therefore, the finished floor levels of lots in or near the mapped flood zone should be a minimum of 332.80m AHD, subject to detailed drainage design.

The road waterway crossing (new street 2) will be required to be flood free in a major storm event to provide safe passage for emergency vehicles as it is the only access route to the western lots. The associated freeboard for the roadway is 300mm to account for wave action and any uncertainty. The minimum design level of the waterway crossing was determined as 332.60m AHD. This minimum waterway crossing level is subject to detailed design.

For all lots outside of the flood hazard overlay, the minimum finished floor levels should be 150mm minimum above natural ground level or 50mm above surrounding impermeable (paved or concreted) areas that slope away from the building.

**Flood Hazard Analysis Limitations and Assumptions**

- This assessment is based on available LiDAR survey data, at 0.25m contour intervals, which may not fully capture the existing water level or dam geometry at the time of survey.
- The top water level of the dam is not constant and may vary at the time of a real storm event.
- The dimensions of the overflow outlet have been estimated and idealised from site observations and contour data and are subject to minor variation. The overflow outlet is a natural formation with curved edges, so exact areas and perimeters may vary slightly; therefore, outlet capacity calculations should be treated as indicative only.
- Hydrologic estimates have been derived using the Rational Method and adopt conservative assumptions, including continuous peak inflows, which likely overstate flood storage requirements.
- Road crossing recommendations adopt a 300 mm freeboard allowance above the calculated maximum water level.
- The design flood standard for emergency vehicle access has been assumed to be the 1% AEP event as per QUDM recommendations.
- The new internal road is not treated as an evacuation route from a flood hazard area. If the road is required to be an evacuation route, stricter flood-free levels may apply.

### 3.3. Hydrologic Design – Detention Requirements

A hydrologic assessment to determine stormwater impacts has been undertaken for the development using the DRAINS software program (Version 2025.01.9147.24925). An analysis was conducted to determine the peak runoff flows for the pre- and post-development conditions, and any potential detention requirements. The 39.35% AEP minor and 1% AEP major storm events, with storm durations between 5 minutes to 4.5 hours, were used as part of the assessment. This does not consider any external impacts or overland flow conditions external to the site.

The analysis within this section of the report is undertaken to ensure that the development will not cause any significant worsening of peak flows leaving the site as a result of subdividing the lot. If significant worsening is seen to occur within this analysis, then additional on-site detention will be designed within the site, as required.

In assessing post-development conditions, additional impervious areas from the proposed internal road network were included. However, no allowance has been made for impervious areas associated with future lot development when determining the detention requirements at a subdivision level. It is assumed that future dwellings or structures constructed by individual lot owners will be required to manage their on-site stormwater impacts in accordance with relevant standards and council requirements.

**DRAINS Input (Detention Requirements)**

The inputs shown in Tables 1 & 2 were used for the stormwater modelling process.

*Table 1 - DRAINS Model Inputs.*

| | |
|---|---|
| **Hydrological Model** | ILSAX |
| **Paved (impervious) area depression storage (mm)** | 1 |
| **Supplementary area depression storage (mm)** | 1 |
| **Grassed (pervious) area depression storage (mm)** | 5 |
| **Soil Type** | 3 (Slow Infiltration Rate) |
| **Antecedent Moisture Condition** | 3 – Rather Wet |

**Catchment Information (Detention Requirements)**

For the determination of any on-site detention requirements within the site, the site will be analysed comparing the pre-development condition (existing) and the post-development condition (addition of new internal roads) to ensure that there is no significant increase in total stormwater flows leaving the site as a result of the subdivision.

The impervious area in the post-development condition is assumed to include a 12m wide sealed roadway (including road shoulders), being a conservative estimate for the low-volume, rural residential, internal roads proposed within the subdivision layout. These impervious road areas will be discharging to basins or overland flow paths and channels before leaving the site and will be therefore considered as supplementary areas in the

modelling process. As a result, the below areas were used in the stormwater modelling process for determining detention / attenuation requirements within the site.

*Table 2 – DRAINS Model Assumptions – modelling for detention requirements.*

| Catchment | Area | Impervious | Supplementary | Grassed |
|---|---|---|---|---|
| Pre-development | 37.12ha | 0% (0ha) | 0% (0ha) | 100% (37.12ha) |
| Post-development | 37.12ha | 0% (0ha) | 3.6% (1.33ha) | 96.4% (35.79ha) |

**Peak Flows**

The peak flow rates for pre-development and post-development are shown in Table 3 below. Peak flow rates shown in the below tables may not be representative of the critical stormwater event under ARR guidelines. Post-development results have been modelled as per site stormwater drainage system in Appendix A.

*Table 3 – Pre- and Post-Development (Unattenuated) Peak Flows.*

| Storm Duration | Peak Flow Discharges | | | |
|---|---|---|---|---|
| | Pre-development | | Post-development | |
| | Minor 39.35% AEP (m3/s) | Major 1% AEP (m3/s) | Minor 39.35% AEP (m3/s) | Major 1% AEP (m3/s) |
| 5 minutes | 0.735 | 3.977 | 0.747 | 3.929 |
| 10 | 1.848 | 7.119 | 1.896 | 7.130 |
| 15 | 2.510 | 9.266 | 2.585 | 9.313 |
| 20 | 2.933 | 10.802 | 3.029 | 10.878 |
| 25 | 3.207 | 11.942 | 3.321 | 12.033 |
| 30 | 3.440 | 12.740 | 3.535 | 12.823 |
| 45 | 3.725 | 12.454 | 3.878 | 12.490 |
| 1 hour | 4.102 | 11.289 | 4.190 | 11.308 |
| 1.5 | 4.176 | 9.539 | 4.327 | 9.593 |
| 2 | 3.761 | 8.259 | 3.918 | 8.276 |
| 3 | 3.630 | 7.470 | 3.730 | 7.496 |
| 4.5 | 2.387 | 5.585 | 2.410 | 5.599 |



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The peak flow discharges in Table 3 demonstrate a slight increase in post-development (unattenuated) flow rates in critical storm events. The increases seen in the post-development condition are less than 5% in both minor and major storms, which is not considered as a significant increase, requiring no additional on-site detention as a result of subdividing the lot.

A summary of the pre-development and post-development peak flows are shown in Table 4 below.

*Table 4 – Peak Flow Discharges Summary – for detention requirements.*

| Discharge Reference | Toal Flows Leaving Site | |
|---|---|---|
| **Storm Event** | **Minor 39.35% AEP** | **Major 1% AEP** |
| **Pre-Development ($m^3/s$)** | **4.176** | **12.740** |
| **Post-Development ($m^3/s$)** | **4.327** (+3.62%) | **12.823** (+0.65%) |

Note: Percentages shown in *Table 4* represent the difference in post-development peak discharges compared to the pre-development site condition.

## 3.4. Hydrologic / Hydraulic Design – Table Drain and Culvert Sizing

A hydrologic and hydraulic assessment has been undertaken for the development using the DRAINS software program (Version 2025.01.9147.24925) to determine the design flows and size of new road table drains, culverts, and overland flow paths within easements. An analysis was conducted to determine the minimum sizing required in the post-development conditions. 1-in-2-year (39.35% AEP) minor storm events for table drains and flow paths and 1-in-10 year (10% AEP) major storm events for culverts were used, as per the recommendations in Table 7.3.1 of QUDM. The design criteria applied for all overland flow paths and culverts is to ensure there is no overtopping to the roads or lot boundaries in the respective design storm events. Storm durations between 5 minutes to 4.5 hours, were used as part of the assessment. The hydrologic design in this section does consider flows entering the site from upstream.

The catchment areas for all table drains, swale drains and pipes/culverts being designed within the site have an assumed fraction impervious of 0.2 to allow for future developments. It is assumed that all future developments within the lot with a fraction impervious that exceeds 0.2 will provide on-site detention to reduce peak flows to below the 0.2 fraction impervious condition.

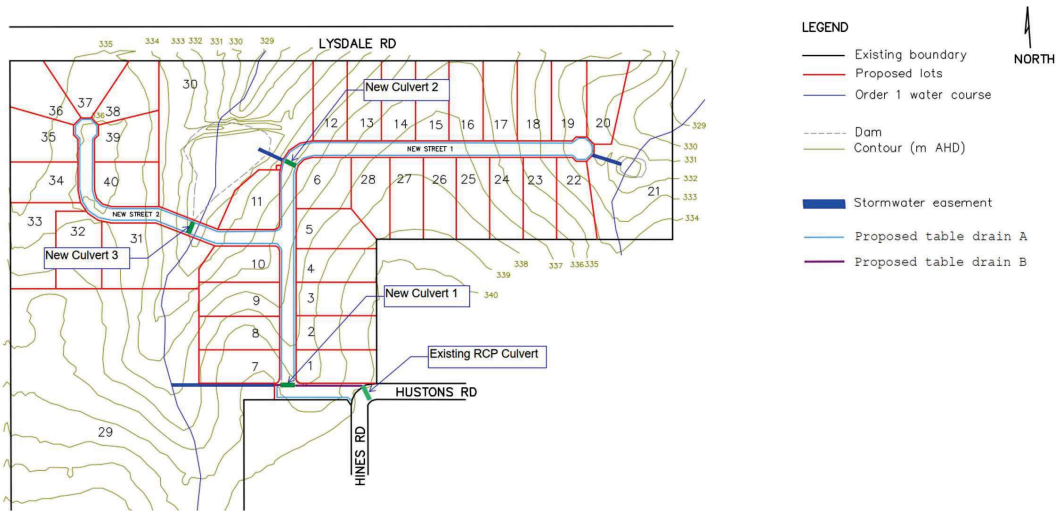



*Figure 17: Culvert and Table Drain Diagram.*

Figure 17 illustrates the planned layout of culverts, table drains and stormwater easements within the subdivision. Two types of table drains are planned:

- **Proposed Table Drain A** is proposed for the majority of internal roads. It is designed with a total width of 4 m with side slopes of 1V:4H, having a depth of 0.5 m.
- **Proposed Table Drain B** will extend from the outlet of the existing RCP culvert at the corner of Hustons Road and Hines Road to New Culvert 1, continuing west on the downstream side of New Culvert 1 until it discharges into the stormwater easement. This drain will be deeper to match the RCP outlet invert and maintain a continuous slope towards the easement. To match the existing level at the RCP outlet the batter slope may need to be greater than 1 in 4. Additional cut will be required in Lot 29 to transition Table Drain B to the swale drain within the stormwater easement. The cross-sectional area of Table Drain B will need to be equal to or greater than 1.5m$^2$ to safely convey flows. The dimension and side slopes of "Proposed Table Drain B" are subject to detailed design.

All stormwater easements are to incorporate a swale drain, 3m wide with side slopes of 1V:3H, resulting in a 0.5m depth.

All culverts were sized in DRAINS using the catchment data in Table 5 below.

*Table 5 – DRAINS Model Inputs – design of culvert sizing.*

| Design Culvert | Catchment Area | Fraction Impervious | Time of Concentration | Culvert Size |
|---|---|---|---|---|
| New Culvert 1 | 6.25ha | 0.2 | 20 mins | 1200 x 450 RCBC |
| New Culvert 2 | 5.27ha | 0.2 | 19 mins | 1200 x 600 RCBC |
| New Culvert 3 | 19.89ha | 0.2 | 26 mins | 1800 x 600 RCBC |

Table 5 Notes:
- time of concentration calculated for overland flows (grassed areas) using Figures 4.4 & 4.5 of QUDM.



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- Culverts sized to ensure no overtopping of roads.
- RCBC = Reinforced concrete box culvert.

The culvert sizes adopted in Table 5 ensure roads are not overtopped during the design 1-in-10-year design storm event. At culvert crossings, table drains will locally deepen to a minimum depth of 0.8 m to ensure no overtopping of roads.

Extracts from the DRAINS model relating to the table drain, swale drain, and culvert sizing's are located in Appendices B2 to B3.

## 4. Stormwater Management Strategy

The results for the total stormwater runoff from the site demonstrate that the post-development flows do not lead to significant increases in stormwater discharges for both minor and major storm events. Any increases in peak stormwater runoff as compared to the pre-development condition are deemed to be negligible (<5%). Therefore, on-site detention is not required for the additional impervious road areas within the subdivided site.

The overall stormwater management strategy for the site is as follows:

- Provide table drains within the new internal roads (both sides) in accordance with the proposed drainage layout, located in Appendix A. Dimensions of table drains can be located in Section 3.4 of this report.
- Provide culverts, sized as per Table 5, to safely convey stormwater within the roadside to the existing waterways, located in positions closely resembling the proposed drainage layout in Appendix A.
- Rock protection should be installed at all culvert outlets (including existing RCP culvert) to minimise the impacts of scouring.
- Shape all 3 m wide stormwater drainage easements as swale drains (1V:3H) to ensure stormwater is safely conveyed within the planned easements.
- Shift the existing outlet from the large retention basin (dam) to the northwest of the basin. The base level of the shifted outlet is to be constructed at a minimum height of 331.75 m AHD. Base width and side slopes are to be approximately as per the existing outlet. Install appropriate rock protection at the outlet base to prevent erosion and scour. Grade the flow path of any overflow runoff back to the existing waterway through the centre of Lot 30. The existing overflow outlet from basin is to be filled to match the level of formed bund. Refer to Appendix A for the indicative location of the shifted overflow outlet.
- Construct the new internal road "New Street 2" to a minimum level of 332.60 m AHD to prevent localised flooding from the retention basin (dam) within proposed lot 30.
- Ensure finished floor levels are greater than 332.80 m AHD for all lots within the mapped flood zone.
- Ensure that all finished floor levels are a minimum 150mm above the external ground level or 50 mm above surrounding impermeable (paved or concreted) areas that slope away from the building (50 mm in the first 1 m).
- Grade all ground areas (grassed and paved) to ensure there is no stormwater ponding within the site, except in designated retention basins.

- Monitor for erosion and adequately maintain culverts, table and swale drains, and discharge points.

Extracts from the DRAINS model are located in Appendices B1 to B3.

## 5. Design Assumptions and Limitations

The following assumptions and limitations applied when calculating the on-site flows:

1. All stormwater runoff generated by the site under the pre- and post-development site conditions ultimately discharges to Lysdale Road.
2. Stormwater will act generally in accordance with the assumptions made in the DRAINS model.
3. No additional stormwater runoff will be discharging to the western boundary of the site; i.e. additional impervious area of road will be captured in table drains and no reshaping of earthworks will direct additional stormwater flows to the western boundary.
4. Existing retention basins have been excluded from the analysis of on-site detention requirements, with the conservative assumption that all flows leave the site without attenuation.
5. Approximate catchment areas were determined using 0.25m LiDAR contour intervals.
6. No climate change allowance was applied to design rainfall.
7. Future lot-level works are assumed to install on-site management where required to reduce runoff volumes below a 0.2 fraction impervious, where required, such as detention basins or attenuation tanks.

## 6. Conclusions

In summary:

- The existing table drains on Lysdale Road and the natural waterways running through the site will serve as the designated discharge points for the post-development site.
- The proposed subdivision will not result in any significant increase in stormwater runoff, and no additional on-site detention is required.
- The site will require table drains within the road reserve, swale drains within the proposed drainage easements and culvert crossings under the road to safely convey stormwater flows within the site, as sized and detailed within Section 4.3 of this report. Refer to the “Proposed Drainage Layout” in Appendix A for the approximate locations of culverts and table drains (including assumed flow directions).
- The existing overflow outlet from the large retention basin is to be shifted to the northwest of the basin. The base level of the outlet is to be reduced to 321.75 m AHD.
- A minimum finished floor level (FFL) of 332.80 m AHD is required for all lots within the mapped flood hazard overlay.
- The road level at the “New Street 2” waterway crossing is to be constructed at a minimum level of 332.60 m AHD.

I believe that the above response satisfies the requirements of QUDM and South Burnett Regional Council requirements with respect to stormwater management – subject to the application of reasonable and relevant conditions.

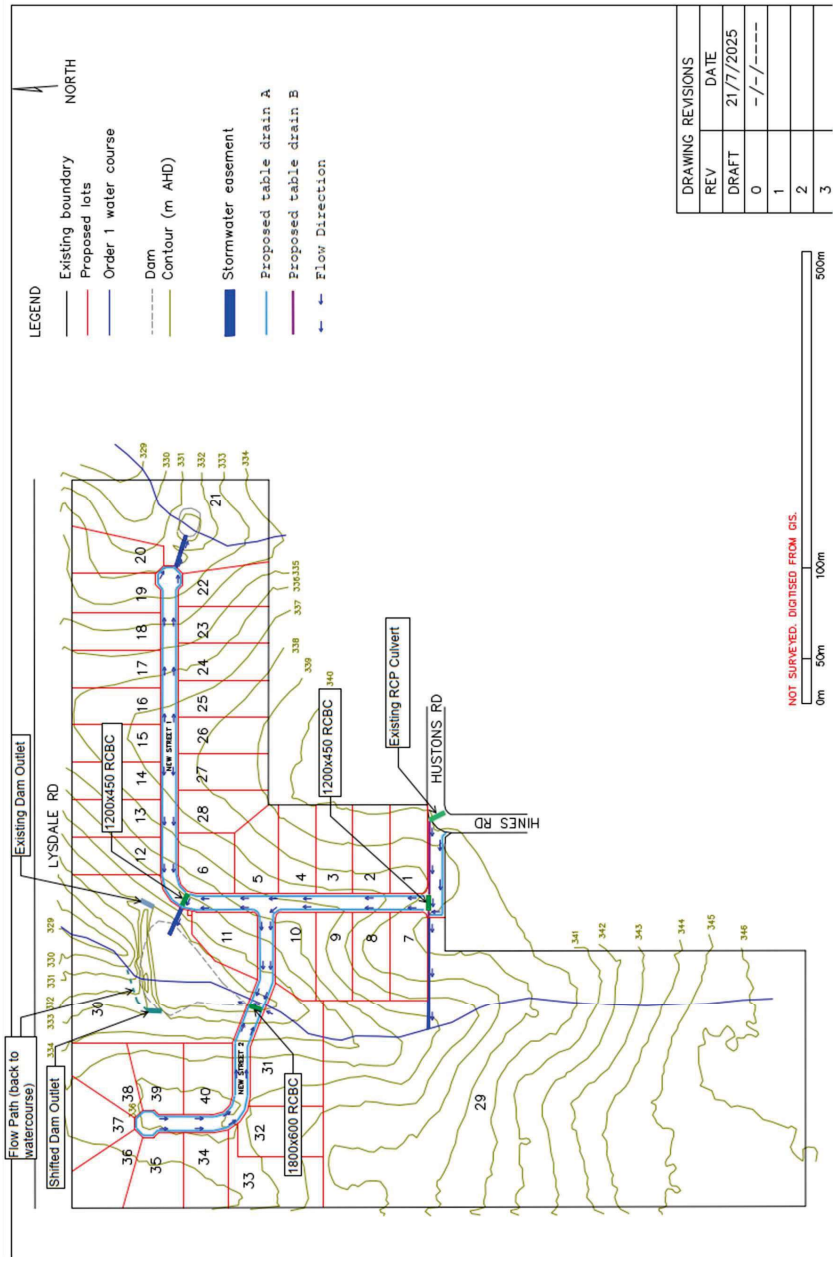
Should you require further assistance or information, please feel free to contact ATC on ☎07 4162 2378 or email office@atcengineers.com.au.

Regards

Philip De Guzman
Technical Services | Design Manager
BSCE *cum laude* MEng Phd RPEQ (Civil / Structural)

# APPENDIX A

## Proposed Drainage Layout – Schematic Only






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# APPENDIX B1 – Model for Detention Requirements

## DRAINS Layout




## DRAINS Critical Storm Results

Note: Displayed flows are representative of median/critical storms as modelled using DRAINS software and do not reflect the peak or maximum flow conditions.

**Minor (39.35% AEP)**




**Major (1% AEP)**

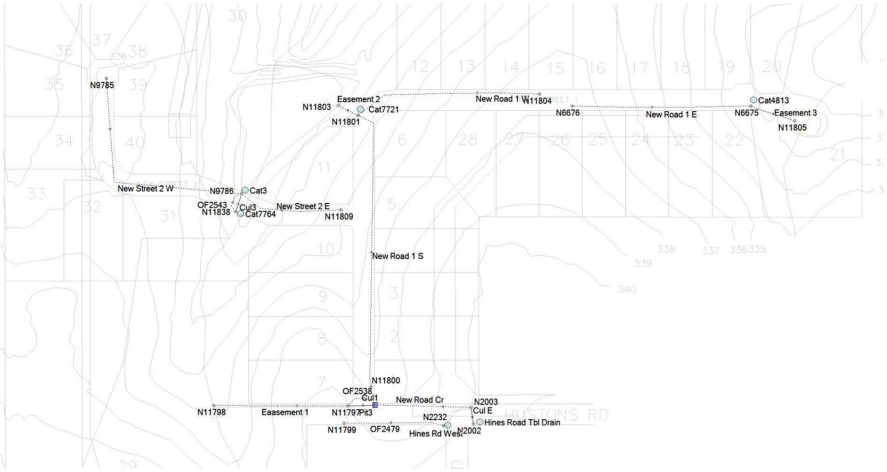





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# APPENDIX B2 – Model for Table Drains

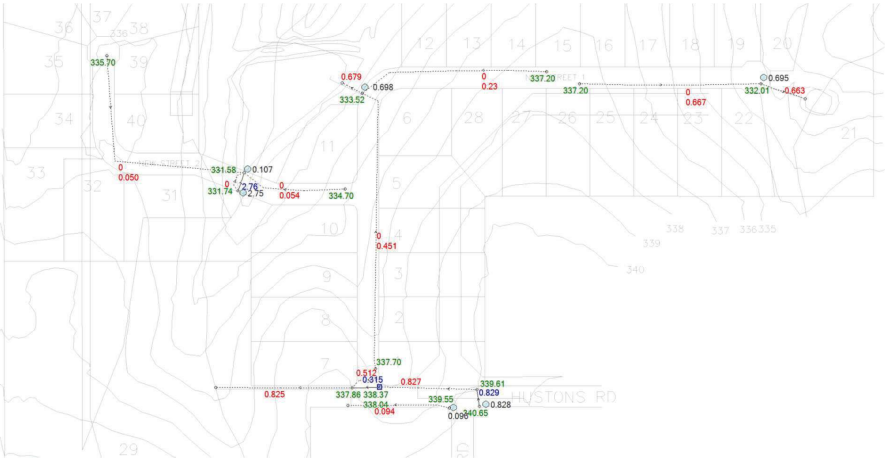
## DRAINS Layout




## DRAINS Critical Storm Results

Note: Displayed flows are representative of median/critical storms as modelled using DRAINS software and do not reflect the peak or maximum flow conditions.

**Table Drain Design Storm (39.35% AEP)**



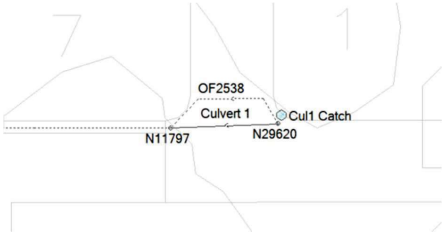



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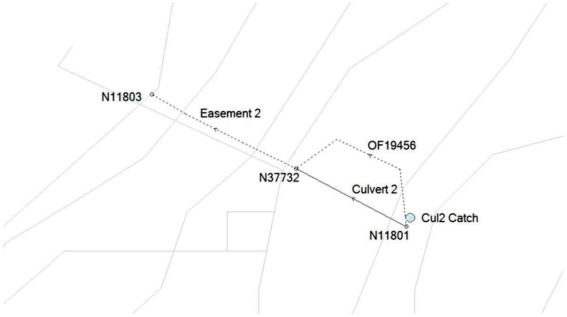
## APPENDIX B3 – Model for Culvert

### DRAINS Layout

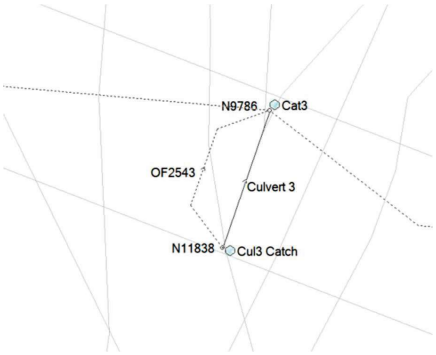
**Culvert 1**




**Culvert 2**




**Culvert 3**





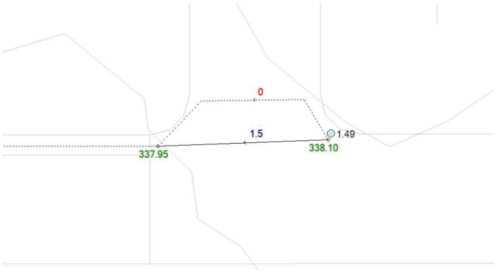

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## DRAINS Critical Storm Results

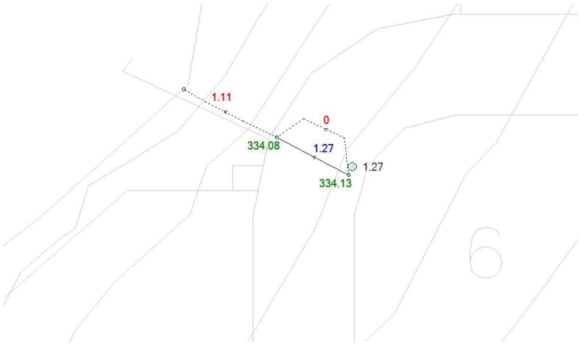
Note: Displayed flows are representative of median/critical storms as modelled using DRAINS software and do not reflect the peak or maximum flow conditions.

**Culvert Design Storm (10% AEP)**

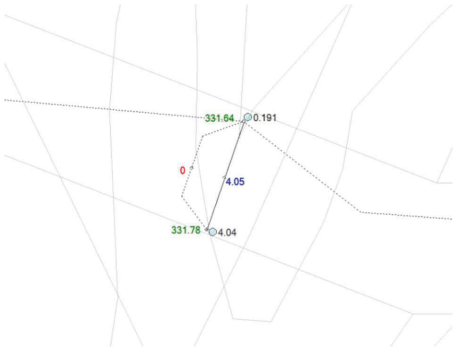
**Culvert 1**




**Culvert 2**




**Culvert 3**






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RA6-N

DELIVERING FOR QUEENSLAND | Queensland Government

Department of
State Development,
Infrastructure and Planning

SARA reference: 2601-50175 SRA
Council reference: RAL25/0044
Applicant reference: 24111

30 January 2026

Chief Executive Officer
South Burnett Regional Council
PO Box 336
KINGAROY QLD 4610
info@sbrc.qld.gov.au

Dear Sir/Madam

# SARA referral agency response—Reconfiguring a Lot for Subdivision (1 Lot into 40 Lots) at Lysdale Road, Wondai

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the State Assessment and Referral Agency (SARA) on 13 January 2026.

## Response

| | |
|---|---|
| Outcome: | Referral agency response – with conditions |
| Date of response: | 30 January 2026 |
| Conditions: | The conditions in **Attachment 1** must be attached to any development approval |
| Advice: | Advice to the applicant is in **Attachment 2** |
| Reasons: | The reasons for the referral agency response are in **Attachment 3** |

## Development details

| | |
|---|---|
| Description: | Development Permit for Reconfiguring a Lot for Subdivision (1 Lot into 40 Lots) |
| SARA role: | Referral agency |
| SARA trigger: | Schedule 10, Part 3, Division 4, Table 2, Item 1—Reconfiguring a lot that involves clearing native vegetation (Planning Regulation 2017) |
| SARA reference: | 2601-50175 SRA |
| Assessment manager: | South Burnett Regional Council |

Far North Queensland regional office
Ground Floor, Cnr Grafton and Hartley Street, Cairns
PO Box 2358, Cairns QLD 4870

2601-50175 SRA

| | |
|---|---|
| Street address: | Lysdale Road, Wondai |
| Real property description: | Lot 59 on SP184725 |
| Applicant name: | Lysdale Property Development Pty Ltd<br>C/- Urban Planet Town Planning Consultants |
| Applicant contact details: | PO Box 232<br>HERVEY BAY QLD 4655<br>ward@urbanplanet.com.au |
| *Human Rights Act 2019* considerations: | A consideration of the 23 fundamental human rights protected under the *Human Rights Act 2019* has been undertaken as part of this decision. It has been determined that this decision does not limit human rights. |

## Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules). Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Poppy Ellis-Southwell, Principal Planning Officer, on (07) 5644 3214 or via email CairnsSARA@dsdilgp.qld.gov.au who will be pleased to assist.

Yours sincerely



Karley Lawler
A/Executive Director Planning Services

cc Lysdale Property Development Pty Ltd C/- Urban Planet Town Planning Consultants, ward@urbanplanet.com.au

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 - Representations about a referral agency response provisions
Attachment 5 - Documents referenced in conditions

## Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the documents referenced below are found at Attachment 5)

| No. | Conditions | Condition timing |
|---|---|---|
| **Development Permit for Reconfiguring a Lot** | | |
| Schedule 10, Part 3, Division 4, Table 2, Item 1 (Planning Regulation 2017)—The chief executive administering the *Planning Act 2016* nominates the Director-General of the Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following conditions: | | |
| 1. | Clearing of vegetation must:<br>(a) only occur within Area A ($A^1$ – $A^4$) and Area C ($C^1$ – $C^4$) as shown on the attached:<br>(i) Vegetation Management Plan, prepared by the Queensland Government, reference VMP 2601-50175 SRA, sheet 1, version 1; and<br>(ii) Attachment to Vegetation Management Plan VMP 2601-50175 SRA Derived Reference Points for GPS;<br>(b) not exceed 17.27 hectares. | At all times. |
| 2. | Clearing of vegetation must not occur within Area B ($B^1$ – $B^4$), as shown on the attached:<br>(a) Vegetation Management Plan, prepared by the Queensland Government, reference VMP 2601-50175 SRA, sheet 1, version 1; and<br>(b) Attachment to Vegetation Management Plan VMP 2601-50175 SRA Derived Reference Points for GPS.<br><br>Note: This condition is not applicable where clearing of vegetation is an exempt clearing activity for essential management items (a), (b), (c), (d) and (e), under schedule 21 of the Planning Regulation 2017. | At all times. |
| 3. | Built infrastructure, other than for fences, roads, underground services, must not be established, constructed or located within Area C ($C^1$ – $C^4$) as shown on the attached:<br>(a) Vegetation Management Plan, prepared by the Queensland Government, reference VMP 2601-50175 SRA, sheet 1, version 1; and<br>(b) Attachment to Vegetation Management Plan VMP 2601-50175 SRA Derived Reference Points for GPS.<br><br>Note: Schedule 21 of the Planning Regulation 2017 provides where exempt clearing work can occur. | At all times. |

## Attachment 2—Advice to the applicant

| General advice | |
|---|---|
| 1. | Terms and phrases used in this document are defined in the *Planning Act 2016*, its regulation or the State Development Assessment Provisions (SDAP) (version 3.5). If a word remains undefined it has its ordinary meaning. |

## Attachment 3—Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

**The reasons for the SARA's decision are:**

- SARA assessed the development against the following code(s) of the State Development Assessment Provisions (SDAP), version 3.5:
    - State code 16: Native vegetation clearing (State code 16).

- The development complies with the assessment benchmarks of State code 16 of SDAP in that the development:
    - minimises clearing to:
        - conserve vegetation
        - avoid land degradation
        - avoid the loss of biodiversity
        - maintain ecological processes
    - for vegetation retention purposes, is undertaken in a manner that retains or regenerates vegetation by sustainably managing the impacts of the clearing on regional ecosystems, biodiversity and ecological processes over time
    - minimises and mitigates impacts on vegetation where avoidance is not possible
    - does not result in a significant residual impact on a matter of state environmental significance.

**Material used in the assessment of the application:**

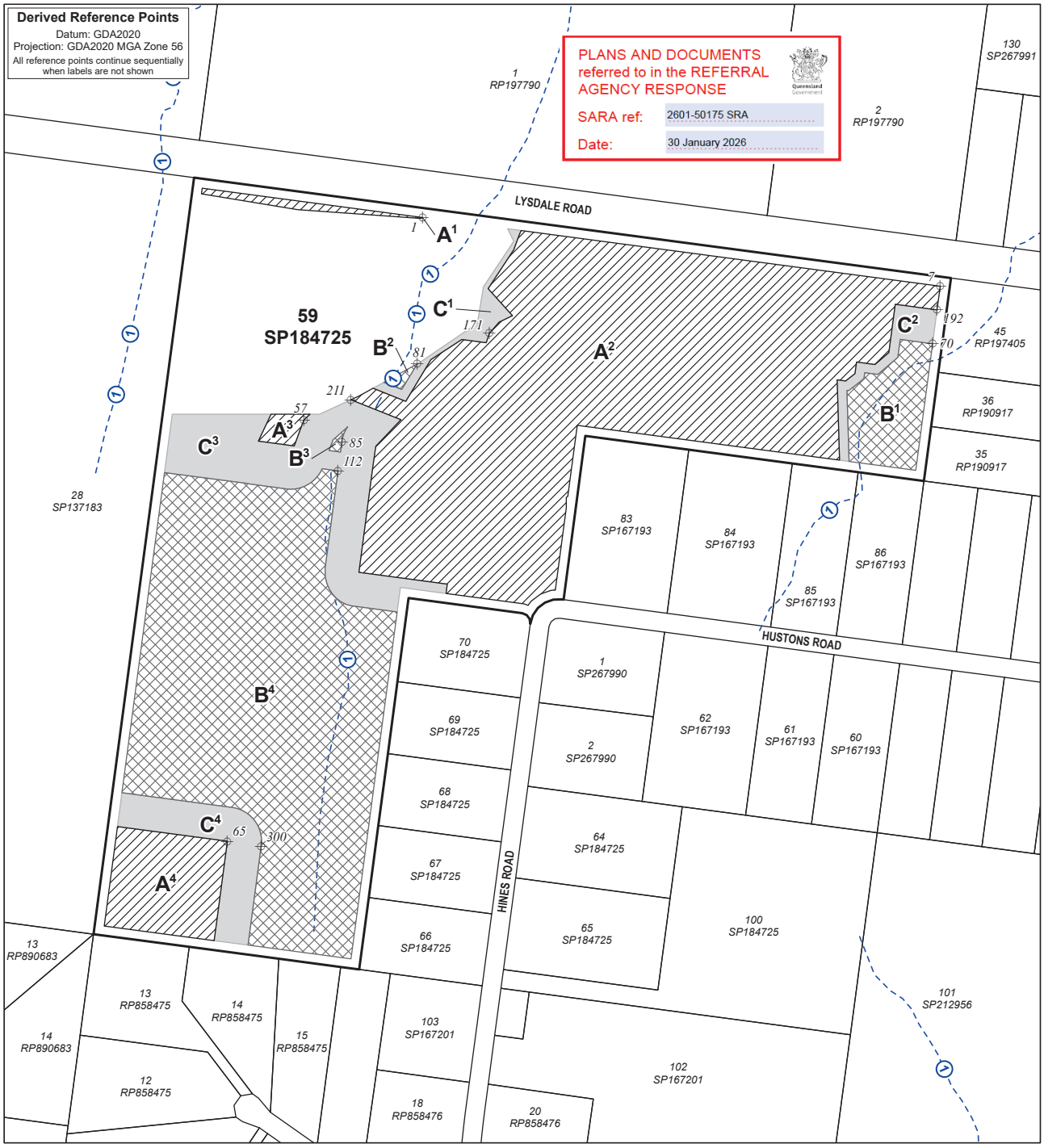
- the development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- the SDAP (version 3.5), as published by SARA
- the Development Assessment Rules
- SARA DA Mapping system
- section 58 of the *Human Rights Act 2019*

## Attachment 4—Representations about a referral agency response provisions

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## Attachment 5—Documents referenced in conditions

(page left intentionally blank)




1:4,000 @ A3 paper size

0 100 200 300 400 metres

Projection: GDA2020 MGA Zone 56 Datum: GDA2020

Notes: Derived Reference Points are provided to assist in the location of area boundaries. Responsibility for locating these boundaries lies solely with the landholder.

Watercourse and drainage feature locations shown on the Vegetation Management Plan are derived from the certified Vegetation Management Watercourse and Drainage Feature Map. These alignments are approximate only and require ground truthing to identify the exact location of the watercourse or drainage feature.

The property boundaries shown on this plan are APPROXIMATE ONLY. They are NOT an accurate representation of the legal boundaries.

**This plan must be read in conjunction with conditions attached to 2601-50175 SRA**

LEGEND

- Derived Reference Start Points (see attachment)
- Subject Lot(s)
- Area A - Clearing Permitted
- Area B - Clearing must not occur
- Area C - Firebreak/safety buffer (only certain infrastructure permitted)
- Watercourse and/or drainage feature (Stream order label)




N

# Vegetation Management Plan

**Plan of Area A (Parts A[1] - A[4]), Area B (Parts B[1] - B[4]) and Area C (Parts C[1] - C[4]) in Lot 59 on Plan SP184725**

Queensland Government

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**VMP 2601-50175 SRA**

**Sheet 1 of 1**

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE

Queensland Government

SARA ref: 2601-50175 SRA

Date: 30 January 2026

# Attachment: 2601-50175 SRA
# Derived Reference Points
# Datum: GDA2020, Projection: MGA Zone 56

**Notes:** Derived Reference Points are provided to assist in the location of area boundaries.
Responsibility for locating these boundaries lies solely with the landholder and delegated contractor(s).
Coordinates start at a point indicated on the accompanying plan and continue sequentially when labels are not shown.

| Part ID | Unique ID | Easting | Northing |
|---|---|---|---|
| A1 | 1 | 385459 | 7090177 |
| A1 | 2 | 385457 | 7090176 |
| A1 | 3 | 385327 | 7090185 |
| A1 | 4 | 385226 | 7090202 |
| A1 | 5 | 385227 | 7090208 |
| A1 | 6 | 385459 | 7090177 |
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| A2 | 8 | 386001 | 7090079 |
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| C1 | 175 | 385441 | 7089983 |
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| C3 | 231 | 385356 | 7089800 |
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| C3 | 233 | 385363 | 7089860 |
| C3 | 234 | 385370 | 7089910 |
| C3 | 235 | 385353 | 7089912 |
| C3 | 236 | 385352 | 7089911 |
| C3 | 237 | 385351 | 7089909 |
| C3 | 238 | 385350 | 7089907 |
| C3 | 239 | 385349 | 7089905 |
| C3 | 240 | 385347 | 7089903 |
| C3 | 241 | 385345 | 7089901 |
| C3 | 242 | 385344 | 7089899 |
| C3 | 243 | 385342 | 7089898 |
| C3 | 244 | 385340 | 7089897 |
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| C3 | 246 | 385336 | 7089894 |
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| C3 | 251 | 385325 | 7089891 |
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| C3 | 253 | 385320 | 7089891 |
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| C3 | 258 | 385273 | 7089897 |
| C3 | 259 | 385266 | 7089898 |
| C3 | 260 | 385213 | 7089904 |
| C3 | 261 | 385188 | 7089908 |
| C3 | 262 | 385187 | 7089908 |
| C3 | 263 | 385190 | 7089934 |
| C3 | 264 | 385195 | 7089970 |
| C3 | 265 | 385299 | 7089970 |
| C3 | 266 | 385293 | 7089956 |
| C3 | 267 | 385286 | 7089941 |
| C3 | 268 | 385324 | 7089936 |
| C3 | 269 | 385334 | 7089963 |
| C3 | 270 | 385340 | 7089970 |
| C3 | 271 | 385350 | 7089970 |
| C3 | 272 | 385383 | 7089985 |
| C3 | 273 | 385364 | 7089942 |
| C3 | 274 | 385360 | 7089931 |
| C3 | 275 | 385372 | 7089930 |
| C3 | 276 | 385374 | 7089940 |
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| C3 | 296 | 385380 | 7089956 |
| C3 | 297 | 385380 | 7089956 |
| C3 | 298 | 385379 | 7089955 |
| C3 | 299 | 385364 | 7089942 |
| C4 | 300 | 385289 | 7089514 |

| Part ID | Unique ID | Easting | Northing |
|---|---|---|---|
| C4 | 301 | 385275 | 7089410 |
| C4 | 302 | 385239 | 7089415 |
| C4 | 303 | 385253 | 7089519 |
| C4 | 304 | 385137 | 7089535 |
| C4 | 305 | 385142 | 7089571 |
| C4 | 306 | 385256 | 7089555 |
| C4 | 307 | 385258 | 7089555 |
| C4 | 308 | 385263 | 7089554 |
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| C4 | 311 | 385276 | 7089547 |
| C4 | 312 | 385280 | 7089543 |
| C4 | 313 | 385283 | 7089539 |
| C4 | 314 | 385286 | 7089535 |
| C4 | 315 | 385288 | 7089530 |
| C4 | 316 | 385289 | 7089525 |
| C4 | 317 | 385289 | 7089520 |
| C4 | 318 | 385289 | 7089515 |
| C4 | 319 | 385289 | 7089514 |

# Development Assessment Rules—Representations about a referral agency response

The following provisions are those set out in sections 28 and 30 of the Development Assessment Rules[1] regarding **representations about a referral agency response**

## Part 6: Changes to the application and referral agency responses

### 28 Concurrence agency changes its response or gives a late response

28.1. Despite part 2, a concurrence agency may, after its referral agency assessment period and any further period agreed ends, change its referral agency response or give a late referral agency response before the application is decided, subject to section 28.2 and 28.3.

28.2. A concurrence agency may change its referral agency response at any time before the application is decided if—

(a) the change is in response to a change which the assessment manager is satisfied is a change under section 26.1; or

(b) the Minister has given the concurrence agency a direction under section 99 of the Act; or

(c) the applicant has given written agreement to the change to the referral agency response.[2]

28.3. A concurrence agency may give a late referral agency response before the application is decided, if the applicant has given written agreement to the late referral agency response.

28.4. If a concurrence agency proposes to change its referral agency response under section 28.2(a), the concurrence agency must—

(a) give notice of its intention to change its referral agency response to the assessment manager and a copy to the applicant within 5 days of receiving notice of the change under section 25.1; and

(b) the concurrence agency has 10 days from the day of giving notice under paragraph (a), or a further period agreed between the applicant and the concurrence agency, to give an amended referral agency response to the assessment manager and a copy to the applicant.

1 Pursuant to Section 68 of the *Planning Act 2016*

2 In the instance an applicant has made representations to the concurrence agency under section 30, and the concurrence agency agrees to make the change included in the representations, section 28.2(c) is taken to have been satisfied.

# Part 7: Miscellaneous

### 30 Representations about a referral agency response

30.1. An applicant may make representations to a concurrence agency at any time before the application is decided, about changing a matter in the referral agency response.[3]

[3] An applicant may elect, under section 32, to stop the assessment manager's decision period in which to take this action. If a concurrence agency wishes to amend their response in relation to representations made under this section, they must do so in accordance with section 28.

SOUTH BURNETT
REGIONAL COUNCIL
18 FEB 2026
KINGAROY OFFICE
Int: ...NC...

RAL25/0044.

Anne Rudge

[redacted]

18/02/2026

Att: Assessment Manager, South Burnett Regional Council. Public Submission.

APPLICATION DETAILS.

Proposal description – Reconfiguring Lot59 (1Lot) into 40 Lots

Applicants full names -Stuart James Nicholson, Cameron James Ansell, Sabrina Elise Ansell.

Application number -RAL 25/0044

Address of Application – Lot 59 on SP184725 Lysdale road, Wondai,4606

GROUNDS FOR SUBMISSION. Residential development. [Objections]

I object to the reconfiguration of lot 59 Lysdale road into 40 lots. 37 being approximately 1 acre in size. The size and number of blocks concern me. They are not in harmony with the rest of the estate, which is mainly made up of 2 to 5 acre lots.

ENVIRONMENTAL IMPACT

The removal of mature trees and some vegetation to make way for acre blocks and their infrastructure will have an impact on the local wildlife and reduce amenity.

TRAFFIC

The proposed development uses Hustons road as its main access. This will increase traffic beyond its capacity for safety and noise.

TOWN WATER.

The proposal states that the 40 lots will connect to the existing water mains located at the western end of Hustons road. The water pressure here on the Northern side of Hustons road is already inadequate to run a family home.

INFRASTRUCTURE.

All the acre lots will need water tanks and wastewater treatment plants. One acre is not enough ground to facilitate effluent dispersal, especially after heavy rainfall.

STORM WATER.

Planning for storm water, especially during times of heavy rain appears to be inadequate. There is a council culvert at the western end of Hustons road which ends up by channelling water from three dams through to the dam mentioned on lot 21. At times there can be a large volume of water flowing through. The proposal also has a culvert channelling water into this dam. It would appear that this could impact neighbouring properties.

Submitters name; Anne [redacted] Rudge, [redacted]

[redacted]

SOUTH BURNETT REGIONAL COUNCIL

CEO APPROVED FORM: 3047594
Version 2 – June 2023
Liveability – Environment & Planning

# Public Submission

**PRIVACY COLLECTION NOTICE:** South Burnett Regional Council collects your personal information for the purpose of processing this form and for use in any Council matters. Your personal information is handled in accordance with the *Information Privacy Act 2009* and will only be disclosed to a third party as per the South Burnett Regional Council Information Privacy Policy. **A hard copy of the electronic document is considered uncontrolled when printed.**

This form has been provided to assist in lodging a submission with respect to a development application. The *Planning Act 2016* (Qld) states that only a 'properly made submission's will be considered. A 'properly made submission' **MUST: -**

- Be signed by each person (the submission makers) making the submission;
- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | Reconfiguration a lot-Subdivision [1 Lot into 40 Lots] Plus New Road over 3 stages |
| Applicant/s full name | Stuart James Nicholson, Cameron James Ansell, Sabrina Elise Ansell |
| Application number | RAL 25/0044 |
| Address of application | Lysdale rd. Wondai Qld 4605 |

**Section 2 – Grounds for submission (Attach more pages if required)**

☑ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | Cherie R Bowditch |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 18/02/2026 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

**Date:** 18th February 2026

**To:** The Chief Executive Officer / Assessment Manager South Burnett Regional Council PO Box 336 Kingaroy QLD 4610

**Subject: FORMAL OBJECTION – Development Application for Reconfiguring a Lot (1 into 40 Lots) – Lysdale Road, Wondai (Lot 59 SP184725) – Job Ref: 24111**

To the Assessment Manager,

As the owner and occupier of the primary residence for 20+ years and [redacted] to the subject site, I am writing to formally lodge my **strong objection** to the proposed 40-lot subdivision at Lysdale Road, Wondai 4606. This is inappropriate intensification that will cause significant detriment to my residential amenity and the established semi-rural lifestyle of Wondai.

My objection is centered on the following critical planning issues:

**1. Conflict with Established Planning Precedent** When I purchased my Lot in 2004 as stage 1 of the development of this area, the subject land as stage 3 was previously envisioned as 2.5 to 5-acre allotments.[Stage 1 & 2 were completed] This established a clear expectation for low-density, rural-residential living. The current proposal to place nine dwellings directly against my single boundary line represents a radical departure from this precedent and an inappropriate "up-zoning" that ignores the established local context.

**2. Visual & Amenity Impact (Overlooking)** The transition from a 5-acre density to nine adjoining neighbors creates an extreme "boundary pressure." The sheer number of dwellings along the boundary line results in an unacceptable loss of privacy .Where I currently look out onto an open 37-hectare native bush landscape, I will now be faced with nine separate dwellings, backyards, and outbuildings. This "wall" of development destroys the privacy of my home and outdoor living areas.This density is inconsistent with the spacious, open-character amenity that current residents have invested in.

**3. Environmental and Noise "Stressing"** By replacing a single 5-acre lot interface with nine separate households, the proposal introduces a concentrated level of domestic noise, lighting, and activity [including vehicle movements, domestic pets, lawn maintenance, power tools, social activity, and air conditioning units] directly onto my boundary. This creates a "wall of impact" for my amenity.

Should Council consider an approval, I request the following conditions be mandated to protect my existing amenity:

- **Enhanced Buffering:** Increased setbacks from my boundary line.
- **Fencing:** High-quality 2.4 m colour bond fencing at the developer's expense along my affected boundaries.
- **Assurance of high-quality construction**, so there is no risk of 'low-tier' residential development that would undermine local property values."

**Conclusion** The proposed development is an over-densification of a sensitive rural-residential fringe. I respectfully request that Council **refuses this application.** At the very least, the layout must be redesigned to provide a significant green-space buffer and much larger "interface lots" along my boundary to mitigate the impact of having nine residences backing onto my home.

I appreciate the opportunity to provide feedback on this development. I trust Council will act to preserve the amenity of long-term residents and I thank you for your consideration."



**From:** elizabeth slottje [redacted]
**Sent:** Monday, 23 February 2026 4:21 PM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Development Application Objection – RAL25/0044

**Please be cautious**
This email originated outside of SBRC..

To: The Assessment Manager South Burnett Regional Council PO Box 336, Kingaroy QLD 4610

RE: Lysdale Road, Wondai QLD 4606
Real Property Description: Lot 59 on SP184725 Proposed Development
Reconfiguration of a Lot (1 Lot into 40 Lots) plus New Road over 3 Stages

Dear Assessment Manager,

We, the undersigned, formally lodge this submission objecting to the above-referenced development application (RAL25/0044) for a 40-lot subdivision at Lysdale Road, Wondai. A detailed review of the application materials reveals that while the proposal may mathematically meet the 4,000m² minimum lot size for the Rural Residential zone, it

represents a severe over-intensification of a highly constrained site. The proposal fails to satisfy multiple assessment benchmarks within the South Burnett Regional Council Planning Scheme v2.0 and the Wide Bay Burnett Regional Plan 2023.
Our grounds for objection are detailed below.
Ground 1: Procedural Flaws and Inadequate Public Notification (Section 53 of the Planning Act 2016) We formally raise a procedural objection regarding the severe inadequacy of the public notification process for this application.
• Restricted Public Opportunity: Under Section 53(3)(b) of the Planning Act 2016, Council must consider whether any gaps in the notification process have "restricted the public's opportunity to make properly made submissions". The extensive suite of highly technical application materials was not made available to the public on the SBRC website until 19 February 2026—leaving only 6 business days for the community to review and respond before the 27 February deadline.
• Failure to Circulate in the Locality: Under Section 17.1(a) of the Development Assessment Rules, the applicant is required to publish a notice in a newspaper "circulating generally in the locality". The applicant's Notice of Intention states public notification was placed in the "South Burnett Times (online edition)". However, active research confirms this notice was only published on the national/state-wide Courier Mail webpage and was completely absent from the local South Burnett Times sub-page. Schedule 2 of the Planning Act defines a "relevant online newspaper" as one that "primarily publishes news or public notices in relation to the local government area". Burying a public notice on a national feed where it does not appear in local search engine results actively disenfranchises residents. Furthermore, the general public reasonably assumes Courier Mail links are paywalled, preventing clicks. Under Section 53(3)(a), this flaw has adversely affected the public's awareness of the application.
Ground 2: Unacceptable Loss of Biodiversity and "Loophole" Clearing (AO18.3) The applicant proposes the massive initial clearing of 17.27 hectares of Category B Regulated Vegetation to facilitate this subdivision and its necessary firebreaks.
• Destruction of MSES Habitat: The applicant's own Ecological Assessment Report confirms the site contains 2.14 hectares of mapped Matters of State Environmental Significance (MSES) Wildlife Habitat for the Short-beaked Echidna, and acknowledges the site provides habitat for vulnerable species including the Koala and Yellow-bellied Glider.
• Conflict with Biodiversity Code (AO18.3): Condition 2 of the State Assessment and Referral Agency (SARA) response strictly forbids clearing in "Area B" but explicitly notes this does not apply to "exempt clearing activity for essential management". By carving a heavily vegetated, bushfire-prone site into 40 separate lots, the proposal guarantees that 40 future landholders will be allowed to utilise statutory exemptions to clear deep into the "protected" Area B for boundary fences and asset protection zones. This directly conflicts with Acceptable Outcome AO18.3 of the SBRC Reconfiguring a Lot Code, which strictly mandates: "Proposed allotments do not create circumstances where additional accepted development clearing of protected vegetation may occur".
Ground 3: Severing of Wildlife Corridors and Introduction of Fatal Threats The proposed development acts as a hard barrier between key bushland areas, severely fragmenting the local wildlife corridor.

• Creation of Barriers (Conflict with AO18.2): Acceptable Outcome AO18.2 of the SBRC Reconfiguring a Lot Code strictly mandates that "Proposed boundaries do not create additional barriers to species movement". Subdividing this continuous habitat into 40 individual lots will introduce miles of restrictive boundary fencing, effectively severing the natural wildlife corridor.
• Introduction of Fatal Threats: The South East Queensland Koala Conservation Strategy and the Wide Bay Burnett Regional Plan explicitly identify domestic animals, car strikes, and urban infrastructure as primary threatening processes to vulnerable species. Transforming a quiet, heavily vegetated block into a high-traffic subdivision with 40 new households introduces a massive influx of domestic dogs, cats, and daily vehicle movements. The cumulative impact of high-density fencing, pets, and traffic will have a devastating impact on the local Koala population and confirmed MSES species attempting to navigate their natural habitat.
Ground 4: Climate Change Impacts, Carbon Loss, and Urban Heat Island Effect The massive clearing of 17.27 hectares of mature native vegetation represents a significant loss of an established carbon sink, directly contradicting the climate resilience objectives of both local and state planning instruments.
• Conflict with the Planning Act 2016: Section 3(3)(c)(iv) of the Act requires that the planning system accounts for the "potential adverse impacts of development on climate change". The release of greenhouse gases associated with the mechanical clearing, mulching, and burning of over 17 hectares of timber, combined with the permanent loss of carbon sequestration, represents an unacceptable and avoidable climate impact.
• Conflict with the Wide Bay Burnett Regional Plan (Heat Island Effect): The WBBRP explicitly warns against development patterns that remove vegetation and replace it with impervious surfaces (such as 40 new roofs, driveways, and asphalt roads). This creates an "urban heat island effect" that exacerbates extreme heat. Retaining this vegetation is critical for local temperature regulation. SBRC must uphold its Strategic Framework (3.5.1), which mandates that new development "acknowledges the potential impacts of climate change".
Ground 5: Bushfire Hazard and Evacuation Chokepoints The applicant's own Bushfire Hazard Assessment Report confirms there is a "Medium bushfire hazard across the majority of the site". Introducing 40 new dwellings into a heavily vegetated landscape inherently increases the vulnerability of people and property.
• Evacuation Risk: The proposed subdivision layout directs all 40 new lots (potentially 80+ vehicles) out through a single, newly created intersection ("New Street 1") merging into the Hustons Road and Hines Road junction. In the event of a rapid-moving bushfire, creating a single-point evacuation chokepoint for 40 households poses an unacceptable risk to life and public safety. This fails PO2 of the Bushfire Hazard Overlay Code, which requires site access to be designed to allow safe evacuation.
Ground 6: Alteration of Flood Hazards and Loss of Natural Hydrological Buffers The north-western portion of the site is constrained by the Flood Hazard Overlay, featuring a major retention basin dam, and the Ecological Assessment confirms the site contains two Stream Order 1 watercourses.
• Loss of Essential Vegetative Buffers: The massive clearing of 17.27 hectares of existing

trees, shrubs, and groundcover strips the site of its natural capacity to intercept rainfall and physically slow overland flow. Without this essential habitat buffer, excess surface water will rush across the newly compacted land at a much higher velocity.

• Conflict with Flood Hazard Overlay: PO20 and AO20 mandate that development must "directly, indirectly and cumulatively" avoid any significant increase in water flow or velocity, and must not result in the "acceleration of flows". Accelerating water velocity through massive vegetation clearing manipulates natural overland flow paths, shifting accelerated flood and erosion risks to downstream rural properties.

Ground 7: Cumulative Impacts of 40 On-Site Wastewater Systems The application proposes that all 40 new lots will rely on individual on-site sewerage facilities (OSSFs).

• Conflict with Water Catchments Overlay: The introduction of 40 separate wastewater treatment systems in close proximity—on a site confirmed to contain two stream order 1 watercourses—poses an extreme risk of cumulative nutrient and pathogen loading into the site's natural drainage features. This fails to satisfy PO22 of the Reconfiguring a Lot Code, which requires "no significant adverse effects on water quality". The cumulative saturation of effluent across 40 lots during severe wet weather events poses an unacceptable contamination risk to the local catchment.

Conclusion: While the proposal may meet mathematical area minimums, it represents a severe over-intensification of a site constrained by bushfire hazards, flood hazards, MSES wildlife habitat, and high-value native vegetation. The clearing of 17.27 hectares of Category B vegetation and the reliance on 40 individual on-site sewage systems feeding into a single local road network poses an unacceptable threat to the Wondai environment and public safety.

This application fails to comply with the core performance outcomes of the South Burnett Regional Council Planning Scheme v2.0 and contradicts the environmental objectives of the Wide Bay Burnett Regional Plan.

On these grounds, we respectfully request that Council formally REFUSE Development Application RAL25/0044.

Yours sincerely,

[redacted]

[redacted]

[redacted]

**From:** [redacted]
**Sent:** Friday, 20 February 2026 10:06 AM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Application RAL25/0044

**Please be cautious**
This email originated outside of SBRC..

**Submission – Development Application RAL25/0044**
**South Burnett Regional Council**

20 February 2026

Submitted by:
Glenn Munro and Lena Freeman
[redacted]

To Whom It May Concern,

We write to formally object to Development Application RAL25/0044, which proposes the subdivision of Lot 59 on SP184725 into 40 residential allotments.

When we purchased our property in 2017, it was our clear understanding that the surrounding land was not capable of being subdivided into smaller lots. Properties within the immediate locality are generally approximately 2.5 acres or larger. Although the current proposal includes some larger allotments, the majority are approximately one acre in size. In our respectful view, allotments of this scale are inconsistent with the established character of the area and would significantly alter its rural residential nature, effectively transforming it into a conventional residential estate rather than maintaining the existing low-density environment.

During our time residing at this property, we have observed a diverse range of native wildlife, including wallabies, kangaroos, echidnas, koalas, possums, greater gliders, various reptile species, and numerous native birds. The frequency and diversity of wildlife observed within our immediate surroundings strongly suggests that the adjoining bushland supports a substantial and interconnected habitat. The clearing of a significant area of native vegetation to facilitate this development would inevitably diminish available habitat and may place local wildlife populations at risk.

We respectfully submit that the environmental implications of the proposal require careful and thorough consideration, particularly in relation to vegetation clearing practices and long-term habitat protection. Traditional Indigenous land management practices demonstrate that land can be managed in ways that support ecological balance and wildlife protection. Accordingly, we submit that the preservation of meaningful wildlife corridors and environmentally sensitive clearing methods should be essential considerations if any development were to proceed.

Further, the creation of 40 additional residential allotments would materially increase traffic volumes on surrounding roads, particularly Hines Road and Huston’s Road. These roads are currently consistent with low-density rural use, and increased traffic would have implications for safety, road maintenance, and overall amenity.

In addition, the proposed development would substantially increase the number of on-site septic systems within the area. Such systems require regular servicing and appropriate disposal of waste. We understand that local service providers are already experiencing operational challenges in managing septic waste collection and disposal. An increase of this magnitude is likely to place additional strain on existing infrastructure and essential services.

We wish to emphasise that we do not oppose development in principle. However, we strongly object to development at the scale currently proposed. We respectfully request that Council refuse the application in its present form. Alternatively, we ask that the proposal be significantly amended to ensure that lot sizes and overall density are consistent with the established rural residential character of the locality.

We thank Council for its consideration of our submission.

Yours faithfully,

Glenn Munro
Lena Freeman

*Kind regards*
Lena Freeman
[redacted]

**********
**********

[redacted]

*not the addressee, you are notified that any transmission, distribution or photocopying of this email is strictly prohibited. The confidentiality attached to this email is not waived, lost or destroyed by reasons of a mistaken delivery to you. The information contained in this email transmission may also be subject to the Right to Information Legislation (2009).*

**From:** [redacted]
**Sent:** Thursday, 26 February 2026 3:51 PM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Development Application Objection -RAL25/0044 Lysdale Rd Wondai Q 4606

**Please be cautious**
This email originated outside of SBRC..

Dear Assessment Manager,

Re: Lot 59 on SP184725 Proposed Development - Reconfiguration of a Lot (1 Lot into 40 Lots) plus New Road over 3 Stages

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reasonably assumes Courier Mail links are paywalled, preventing clicks. Under Section 53(3)(a), this flaw has adversely affected the public's awareness of the application.
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• Destruction of MSES Habitat: The applicant’s own Ecological Assessment Report confirms the site contains 2.14 hectares of mapped Matters of State Environmental Significance (MSES) Wildlife Habitat for the Short-beaked Echidna, and acknowledges the site provides habitat for vulnerable species including the Koala and Yellow-bellied Glider.
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• Conflict with the Planning Act 2016: Section 3(3)(c)(iv) of the Act requires that the planning system accounts for the "potential adverse impacts of development on climate change". The release of greenhouse gases associated with the mechanical clearing, mulching, and burning of over 17 hectares of timber, combined with the permanent loss of carbon sequestration, represents an unacceptable and avoidable climate impact.
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impervious surfaces (such as 40 new roofs, driveways, and asphalt roads). This creates an "urban heat island effect" that exacerbates extreme heat. Retaining this vegetation is critical for local temperature regulation. SBRC must uphold its Strategic Framework (3.5.1), which mandates that new development "acknowledges the potential impacts of climate change".

Ground 5: Bushfire Hazard and Evacuation Chokepoints The applicant's own Bushfire Hazard Assessment Report confirms there is a "Medium bushfire hazard across the majority of the site". Introducing 40 new dwellings into a heavily vegetated landscape inherently increases the vulnerability of people and property.

• Evacuation Risk: The proposed subdivision layout directs all 40 new lots (potentially 80+ vehicles) out through a single, newly created intersection ("New Street 1") merging into the Hustons Road and Hines Road junction. In the event of a rapid-moving bushfire, creating a single-point evacuation chokepoint for 40 households poses an unacceptable risk to life and public safety. This fails PO2 of the Bushfire Hazard Overlay Code, which requires site access to be designed to allow safe evacuation.

Ground 6: Alteration of Flood Hazards and Loss of Natural Hydrological Buffers The north-western portion of the site is constrained by the Flood Hazard Overlay, featuring a major retention basin dam, and the Ecological Assessment confirms the site contains two Stream Order 1 watercourses.

• Loss of Essential Vegetative Buffers: The massive clearing of 17.27 hectares of existing trees, shrubs, and groundcover strips the site of its natural capacity to intercept rainfall and physically slow overland flow. Without this essential habitat buffer, excess surface water will rush across the newly compacted land at a much higher velocity.

• Conflict with Flood Hazard Overlay: PO20 and AO20 mandate that development must "directly, indirectly and cumulatively" avoid any significant increase in water flow or velocity, and must not result in the "acceleration of flows". Accelerating water velocity through massive vegetation clearing manipulates natural overland flow paths, shifting accelerated flood and erosion risks to downstream rural properties.

Ground 7: Cumulative Impacts of 40 On-Site Wastewater Systems The application proposes that all 40 new lots will rely on individual on-site sewerage facilities (OSSFs).

• Conflict with Water Catchments Overlay: The introduction of 40 separate wastewater treatment systems in close proximity—on a site confirmed to contain two stream order 1 watercourses—poses an extreme risk of cumulative nutrient and pathogen loading into the site's natural drainage features. This fails to satisfy PO22 of the Reconfiguring a Lot Code, which requires "no significant adverse effects on water quality". The cumulative saturation of effluent across 40 lots during severe wet weather events poses an unacceptable contamination risk to the local catchment.

Conclusion: While the proposal may meet mathematical area minimums, it represents a severe over-intensification of a site constrained by bushfire hazards, flood hazards, MSES wildlife habitat, and high-value native vegetation. The clearing of 17.27 hectares of Category B vegetation and the reliance on 40 individual on-site sewage systems feeding into a single local road network poses an unacceptable threat to the Wondai environment and public safety.

This application fails to comply with the core performance outcomes of the South Burnett Regional Council Planning Scheme v2.0 and contradicts the environmental objectives of the Wide Bay Burnett Regional Plan.

On these grounds, we respectfully request that Council formally REFUSE Development Application RAL25/0044.
Yours sincerely,

[redacted]



**From:** [redacted]
**Sent:** Saturday, 14 February 2026 7:37 AM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Submission – Development Application RAL25/0044

**Please be cautious**
This email originated outside of SBRC..

**Submission – Development Application RAL25/0044**

To: South Burnett Regional Council

I am writing to formally object to Development Application RAL25/0044, proposing the reconfiguration of Lot 59 on SP184725 into 40 residential lots.

My family and I live nearby in a long-established rural residential area defined by large blocks, low density living, privacy, and a quiet, semi-isolated setting away from the township. We chose to live here because of the space, the peace, and the lifestyle that comes with living in a rural residential community rather than a suburban estate.

While I understand that population growth and housing demand must be planned for,

this proposal represents a scale and density of development that is fundamentally out of character with the existing area. Introducing 40 lots of approximately one acre each into a locality dominated by blocks of 2.5 to 3.5 acres changes not just the housing pattern, but the identity and feel of the community itself.

This development would significantly alter the amenity of the area. Increased traffic, noise, activity, lighting, and reduced privacy are not minor impacts. They represent a complete shift in how this place functions as a neighbourhood. What is currently a quiet rural residential setting would begin to take on the form and pressures of a higher density residential estate.

In addition to these amenity impacts, the transformation of a large, largely intact bushland landscape into a residential subdivision will inevitably affect the natural setting of the area, including the everyday presence of native wildlife and the open, green character that defines this locality. Our children love seeing the wallabies, kookaburras and hearing the calls of the koalas from their own backyards. This landscape is part of what gives the area its identity and sense of place.

We are not opposed to growth, but growth should occur in locations and at scales that are appropriate to their context. Development should strengthen communities, not override their character. In its current form, this proposal does not reflect the established nature of the area or the expectations of residents who have invested in this community based on its rural residential identity.

I respectfully ask Council to refuse Development Application RAL25/0044, or require a substantially lower-density outcome that better aligns with the existing character, lifestyle, and amenity of the surrounding neighbourhood.

Thank you for considering this submission.

Regards,
Libby and Brad Edwards
[redacted]
Wondai

[redacted]

**From:** [redacted]
**Sent:** Thursday, 26 February 2026 12:07 AM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>; Mayor's Office <mayor@sbrc.qld.gov.au>; Jane Erkens <Jane.Erkens@sbrc.qld.gov.au>; Linda Little <Linda.Little@sbrc.qld.gov.au>; Danita Potter <danita.potter@sbrc.qld.gov.au>; Deb Dennien <deb.dennien@sbrc.qld.gov.au>; Heath Sander <heath.sander@sbrc.qld.gov.au>; Ros Heit <Ros.Heit@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Development Application Objection – RAL25/0044
**Importance:** High

**Please be cautious**
This email originated outside of SBRC..

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To: The Assessment Manager,
South Burnett Regional Council PO Box 336,
Kingaroy QLD 4610
23 February 2026
Re: Development Application Objection – RAL25/0044 Street Address: Lysdale Road, Wondai QLD 4606 Real Property Description: Lot 59 on SP184725 Proposed

Development: Reconfiguration of a Lot (1 Lot into 40 Lots) plus New Road over 3 Stages
Dear Assessment Manager, Mayor and Councillors,

I the undersigned, formally lodge this submission objecting to the above-referenced development application (RAL25/0044) for a 40-lot subdivision at Lysdale Road, Wondai.
A detailed review of the application materials reveals that while the proposal may mathematically meet the 4,000m² minimum lot size for the Rural Residential zone, it represents a severe over-intensification of a highly constrained site. The proposal fails to satisfy multiple assessment benchmarks within the South Burnett Regional Council Planning Scheme v2.0 and the Wide Bay Burnett Regional Plan 2023.
Our grounds for objection are detailed below.

Ground 1: Procedural Flaws and Inadequate Public Notification (Section 53 of the Planning Act 2016) We formally raise a procedural objection regarding the severe inadequacy of the public notification process for this application.
• Restricted Public Opportunity: Under Section 53(3)(b) of the Planning Act 2016, Council must consider whether any gaps in the notification process have "restricted the public's opportunity to make properly made submissions". The extensive suite of highly technical application materials was not made available to the public on the SBRC website until 19 February 2026—leaving only 6 business days for the community to review and respond before the 27 February deadline.
• Failure to Circulate in the Locality: Under Section 17.1(a) of the Development Assessment Rules, the applicant is required to publish a notice in a newspaper "circulating generally in the locality". The applicant's Notice of Intention states public notification was placed in the "South Burnett Times (online edition)". However, active research confirms this notice was only published on the national/state-wide Courier Mail webpage and was completely absent from the local South Burnett Times sub-page. Schedule 2 of the Planning Act defines a "relevant online newspaper" as one that "primarily publishes news or public notices in relation to the local government area". Burying a public notice on a national feed where it does not appear in local search engine results actively disenfranchises residents. Furthermore, the general public reasonably assumes Courier Mail links are paywalled, preventing clicks. Under Section 53(3)(a), this flaw has adversely affected the public's awareness of the application.
Ground 2: Unacceptable Loss of Biodiversity and "Loophole" Clearing (AO18.3) The applicant proposes the massive initial clearing of 17.27 hectares of Category B Regulated Vegetation to facilitate this subdivision and its necessary firebreaks.
• Destruction of MSES Habitat: The applicant's own Ecological Assessment Report confirms the site contains 2.14 hectares of mapped Matters of State Environmental Significance (MSES) Wildlife Habitat for the Short-beaked Echidna, and acknowledges the site provides habitat for vulnerable species including the Koala and Yellow-bellied Glider.
• Conflict with Biodiversity Code (AO18.3): Condition 2 of the State Assessment and Referral Agency (SARA) response strictly forbids clearing in "Area B" but explicitly notes this does not apply to "exempt clearing activity for essential management". By carving a

heavily vegetated, bushfire-prone site into 40 separate lots, the proposal guarantees that 40 future landholders will be allowed to utilise statutory exemptions to clear deep into the "protected" Area B for boundary fences and asset protection zones. This directly conflicts with Acceptable Outcome AO18.3 of the SBRC Reconfiguring a Lot Code, which strictly mandates: "Proposed allotments do not create circumstances where additional accepted development clearing of protected vegetation may occur".
Ground 3: Severing of Wildlife Corridors and Introduction of Fatal Threats The proposed development acts as a hard barrier between key bushland areas, severely fragmenting the local wildlife corridor.
• Creation of Barriers (Conflict with AO18.2): Acceptable Outcome AO18.2 of the SBRC Reconfiguring a Lot Code strictly mandates that "Proposed boundaries do not create additional barriers to species movement". Subdividing this continuous habitat into 40 individual lots will introduce miles of restrictive boundary fencing, effectively severing the natural wildlife corridor.
• Introduction of Fatal Threats: The South East Queensland Koala Conservation Strategy and the Wide Bay Burnett Regional Plan explicitly identify domestic animals, car strikes, and urban infrastructure as primary threatening processes to vulnerable species. Transforming a quiet, heavily vegetated block into a high-traffic subdivision with 40 new households introduces a massive influx of domestic dogs, cats, and daily vehicle movements. The cumulative impact of high-density fencing, pets, and traffic will have a devastating impact on the local Koala population and confirmed MSES species attempting to navigate their natural habitat.
Ground 4: Climate Change Impacts, Carbon Loss, and Urban Heat Island Effect The massive clearing of 17.27 hectares of mature native vegetation represents a significant loss of an established carbon sink, directly contradicting the climate resilience objectives of both local and state planning instruments.
• Conflict with the Planning Act 2016: Section 3(3)(c)(iv) of the Act requires that the planning system accounts for the "potential adverse impacts of development on climate change". The release of greenhouse gases associated with the mechanical clearing, mulching, and burning of over 17 hectares of timber, combined with the permanent loss of carbon sequestration, represents an unacceptable and avoidable climate impact.
• Conflict with the Wide Bay Burnett Regional Plan (Heat Island Effect): The WBBRP explicitly warns against development patterns that remove vegetation and replace it with impervious surfaces (such as 40 new roofs, driveways, and asphalt roads). This creates an "urban heat island effect" that exacerbates extreme heat. Retaining this vegetation is critical for local temperature regulation. SBRC must uphold its Strategic Framework (3.5.1), which mandates that new development "acknowledges the potential impacts of climate change".
Ground 5: Bushfire Hazard and Evacuation Chokepoints The applicant's own Bushfire Hazard Assessment Report confirms there is a "Medium bushfire hazard across the majority of the site". Introducing 40 new dwellings into a heavily vegetated landscape inherently increases the vulnerability of people and property.
• Evacuation Risk: The proposed subdivision layout directs all 40 new lots (potentially 80+ vehicles) out through a single, newly created intersection ("New Street 1") merging into the Hustons Road and Hines Road junction. In the event of a rapid-moving bushfire, creating a single-point evacuation chokepoint for 40 households poses an unacceptable

risk to life and public safety. This fails PO2 of the Bushfire Hazard Overlay Code, which requires site access to be designed to allow safe evacuation.
Ground 6: Alteration of Flood Hazards and Loss of Natural Hydrological Buffers The north-western portion of the site is constrained by the Flood Hazard Overlay, featuring a major retention basin dam, and the Ecological Assessment confirms the site contains two Stream Order 1 watercourses.
• Loss of Essential Vegetative Buffers: The massive clearing of 17.27 hectares of existing trees, shrubs, and groundcover strips the site of its natural capacity to intercept rainfall and physically slow overland flow. Without this essential habitat buffer, excess surface water will rush across the newly compacted land at a much higher velocity.
• Conflict with Flood Hazard Overlay: PO20 and AO20 mandate that development must "directly, indirectly and cumulatively" avoid any significant increase in water flow or velocity, and must not result in the "acceleration of flows". Accelerating water velocity through massive vegetation clearing manipulates natural overland flow paths, shifting accelerated flood and erosion risks to downstream rural properties.
Ground 7: Cumulative Impacts of 40 On-Site Wastewater Systems The application proposes that all 40 new lots will rely on individual on-site sewerage facilities (OSSFs).
• Conflict with Water Catchments Overlay: The introduction of 40 separate wastewater treatment systems in close proximity—on a site confirmed to contain two stream order 1 watercourses—poses an extreme risk of cumulative nutrient and pathogen loading into the site's natural drainage features. This fails to satisfy PO22 of the Reconfiguring a Lot Code, which requires "no significant adverse effects on water quality". The cumulative saturation of effluent across 40 lots during severe wet weather events poses an unacceptable contamination risk to the local catchment.
Conclusion: While the proposal may meet mathematical area minimums, it represents a severe over-intensification of a site constrained by bushfire hazards, flood hazards, MSES wildlife habitat, and high-value native vegetation. The clearing of 17.27 hectares of Category B vegetation and the reliance on 40 individual on-site sewage systems feeding into a single local road network poses an unacceptable threat to the Wondai environment and public safety.
This application fails to comply with the core performance outcomes of the South Burnett Regional Council Planning Scheme v2.0 and contradicts the environmental objectives of the Wide Bay Burnett Regional Plan.

South East Queensland Koala Conservation Strategy 2020-2025
• Explicitly lists "habitat loss, disease, car strikes, [and] dog attacks" as the primary threats to koala survival, confirming that the introduction of 40 new households and their domestic pets poses a recognized, fatal threat to the species and local wildlife corridors.

Therefore on all these grounds, I respectfully request that Council formally REFUSE Development Application RAL25/0044.

Thank you for considering my submission.

Yours sincerely,

Paola Torti

[redacted]



**From:** [redacted]
**Sent:** Monday, 9 February 2026 4:39 PM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Lot59 on SP184725 Wondai Development objection

**Please be cautious**
This email originated outside of SBRC..

To Whom It May Concern,

I am writing to formally lodge an objection to the proposed subdivision of Lot59 on SP184725 of the neighbouring land located at as currently advertised.

When we purchased our property, we were advised that the land was protected and that the area would retain its rural character. This understanding was a significant factor in our decision to buy and invest in our home. The proposed subdivision, particularly the small lot sizes, is inconsistent with this expectation and would fundamentally change the established rural feel of the area, creating a higher-density, town-like environment that is not in keeping with the existing landscape.

The rural character of this area is one of its defining and most valued features. The proposed development would result in increased housing density, traffic, noise, and

infrastructure pressures, which would negatively impact the quiet, open, and semi-natural setting that currently exists.
Additionally, the land in question supports local wildlife. We regularly observe native animals including koalas, echidnas, and wallabies moving through and inhabiting the area. Subdividing the land into smaller lots would significantly reduce habitat, disrupt wildlife corridors, and increase risks to these animals from fencing, vehicles, domestic pets, and human activity. The cumulative impact on local biodiversity is a serious concern.

For these reasons, I respectfully request that Council reconsider the proposed subdivision and give due weight to:

- The loss of rural character and amenity
- The inconsistency with the existing low-density environment
- The impact on native wildlife and habitat
- The expectations set for land protection at the time of property purchase

I ask that Council prioritise the long-term environmental and community values of this area when making its determination.
Thank you for the opportunity to make this submission. I trust these concerns will be carefully considered.

Yours sincerely,

Scott Hensler
[redacted]



**From:** Shaun Heirdsfield [redacted]
**Sent:** Sunday, 22 February 2026 12:44 PM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Development Application Objection – RAL25/0044 Street Address: Lysdale Road, Wondai QLD 4606 Real Property Description: Lot 59 on SP184725 Proposed Development: Reconfiguration of a Lot (1 Lot into 40 Lots) plus New Road over 3 Stages

**Please be cautious**
This email originated outside of SBRC..

Dear Assessment Manager,

Date: 22 Feb 2026

I the undersigned, formally lodge this submission objecting to the above-referenced development application (RAL25/0044) for a 40-lot subdivision at Lysdale Road, Wondai.

A detailed review of the application materials reveals that while the proposal may mathematically meet the 4,000m$^2$ minimum lot size for the Rural Residential zone, it represents a severe over-intensification of a highly constrained site. The proposal fails to satisfy multiple assessment benchmarks within the South Burnett Regional Council Planning Scheme v2.0 and the Wide Bay Burnett Regional Plan 2023.

Our grounds for objection are detailed below.

**Ground 1: Procedural Flaws and Inadequate Public Notification (Section 53 of the Planning Act 2016)** We formally raise a procedural objection regarding the severe inadequacy of the public notification process for this application.

- Restricted Public Opportunity: Under Section 53(3)(b) of the Planning Act 2016, Council must consider whether any gaps in the notification process have "restricted the public's opportunity to make properly made submissions". The extensive suite of highly technical application materials was not made available to the public on the SBRC website until 19 February 2026—leaving only 6 business days for the community to review and respond before the 27 February deadline.
- Failure to Circulate in the Locality: Under Section 17.1(a) of the Development Assessment Rules, the applicant is required to publish a notice in a newspaper "circulating generally in the locality". The applicant's Notice of Intention states public notification was placed in the "South Burnett Times (online edition)". However, active research confirms this notice was only published on the national/state-wide Courier Mail webpage and was completely absent from the local South Burnett Times sub-page. Schedule 2 of the Planning Act defines a "relevant online newspaper" as one that "primarily publishes news or public notices in relation to the local government area". Burying a public notice on a national feed where it does not appear in local search engine results actively disenfranchises residents. Furthermore, the general public reasonably assumes Courier Mail links are paywalled, preventing clicks. Under Section 53(3)(a), this flaw has adversely affected the public's awareness of the application.

**Ground 2: Unacceptable Loss of Biodiversity and "Loophole" Clearing (AO18.3)** The applicant proposes the massive initial clearing of 17.27 hectares of Category B Regulated Vegetation to facilitate this subdivision and its necessary firebreaks.

- Destruction of MSES Habitat: The applicant's own Ecological Assessment Report confirms the site contains 2.14 hectares of mapped Matters of State Environmental Significance (MSES) Wildlife Habitat for the Short-beaked Echidna, and acknowledges the site provides habitat for vulnerable species including the Koala and Yellow-bellied Glider.
- Conflict with Biodiversity Code (AO18.3): Condition 2 of the State Assessment and Referral Agency (SARA) response strictly forbids clearing in "Area B" but explicitly notes this does not apply to "exempt clearing activity for essential management". By carving a heavily vegetated, bushfire-prone site into 40 separate lots, the proposal guarantees that 40 future landholders will be allowed to utilise statutory exemptions to clear deep into the "protected" Area B for boundary fences and asset protection zones. This directly conflicts with Acceptable Outcome AO18.3 of the SBRC Reconfiguring a Lot Code, which strictly mandates: "Proposed allotments do not create circumstances where additional accepted development clearing of protected vegetation may occur".

**Ground 3: Severing of Wildlife Corridors and Introduction of Fatal Threats** The proposed development acts as a hard barrier between key bushland areas, severely fragmenting the local wildlife corridor.

- Creation of Barriers (Conflict with AO18.2): Acceptable Outcome AO18.2 of the SBRC Reconfiguring a Lot Code strictly mandates that "Proposed boundaries do not create additional barriers to species movement". Subdividing this continuous habitat into 40 individual lots will introduce miles of restrictive boundary fencing, effectively severing the natural wildlife corridor.
- Introduction of Fatal Threats: The South East Queensland Koala Conservation Strategy and the Wide Bay Burnett Regional Plan explicitly identify domestic animals, car strikes, and urban infrastructure as primary threatening processes to vulnerable species. Transforming a quiet, heavily vegetated block into a high-traffic subdivision with 40 new households introduces a massive influx of domestic dogs, cats, and daily vehicle movements. The cumulative impact of high-density fencing, pets, and traffic will have a devastating impact on the local Koala population and confirmed MSES species attempting to navigate their natural habitat.

**Ground 4: Climate Change Impacts, Carbon Loss, and Urban Heat Island Effect** The massive clearing of 17.27 hectares of mature native vegetation represents a significant loss of an

established carbon sink, directly contradicting the climate resilience objectives of both local and state planning instruments.

- Conflict with the Planning Act 2016: Section 3(3)(c)(iv) of the Act requires that the planning system accounts for the "potential adverse impacts of development on climate change". The release of greenhouse gases associated with the mechanical clearing, mulching, and burning of over 17 hectares of timber, combined with the permanent loss of carbon sequestration, represents an unacceptable and avoidable climate impact.
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- Evacuation Risk: The proposed subdivision layout directs all 40 new lots (potentially 80+ vehicles) out through a single, newly created intersection ("New Street 1") merging into the Hustons Road and Hines Road junction. In the event of a rapid-moving bushfire, creating a single-point evacuation chokepoint for 40 households poses an unacceptable risk to life and public safety. This fails PO2 of the Bushfire Hazard Overlay Code, which requires site access to be designed to allow safe evacuation.

**Ground 6: Alteration of Flood Hazards and Loss of Natural Hydrological Buffers** The north-western portion of the site is constrained by the Flood Hazard Overlay, featuring a major retention basin dam, and the Ecological Assessment confirms the site contains two Stream Order 1 watercourses.

- Loss of Essential Vegetative Buffers: The massive clearing of 17.27 hectares of existing trees, shrubs, and groundcover strips the site of its natural capacity to intercept rainfall and physically slow overland flow. Without this essential habitat buffer, excess surface water will rush across the newly compacted land at a much higher velocity.
- Conflict with Flood Hazard Overlay: PO20 and AO20 mandate that development must "directly, indirectly and cumulatively" avoid any significant increase in water flow or velocity, and must not result in the "acceleration of flows". Accelerating water velocity through massive vegetation clearing manipulates natural overland flow paths, shifting accelerated flood and erosion risks to downstream rural properties.

**Ground 7: Cumulative Impacts of 40 On-Site Wastewater Systems** The application proposes that all 40 new lots will rely on individual on-site sewerage facilities (OSSFs).

- Conflict with Water Catchments Overlay: The introduction of 40 separate wastewater treatment systems in close proximity—on a site confirmed to contain two stream order 1 watercourses—poses an extreme risk of cumulative nutrient and pathogen loading into the site's natural drainage features. This fails to satisfy PO22 of the Reconfiguring a Lot Code, which requires "no significant adverse effects on water quality". The cumulative saturation of effluent across 40 lots during severe wet weather events poses an unacceptable contamination risk to the local catchment.

**Conclusion:** While the proposal may meet mathematical area minimums, it represents a severe over-intensification of a site constrained by bushfire hazards, flood hazards, MSES wildlife habitat, and high-value native vegetation. The clearing of 17.27 hectares of Category B vegetation and the reliance on 40 individual on-site sewage systems feeding into a single local road network poses an unacceptable threat to the Wondai environment and public safety.

This application fails to comply with the core performance outcomes of the South Burnett Regional Council Planning Scheme v2.0 and contradicts the environmental objectives of the Wide Bay Burnett Regional Plan.

On these grounds, we respectfully request that Council formally REFUSE Development Application RAL25/0044.

Yours sincerely,

[redacted]



**From:** Sue Tonga [redacted]
**Sent:** Sunday, 22 February 2026 6:33 PM
**To:** Council Information General Email Account <info@sbrc.qld.gov.au>
**Subject:** [EXTERNAL] Development Application Objection – RAL25/0044

**Please be cautious**
This email originated outside of SBRC..

To: The Assessment Manager South Burnett Regional Council PO Box 336, Kingaroy QLD 4610 Email: info@sbrc.qld.gov.au
Date: 22nd February, 2026
Re: Development Application Objection – RAL25/0044 Street Address: Lysdale Road, Wondai QLD 4606 Real Property Description: Lot 59 on SP184725 Proposed Development: Reconfiguration of a Lot (1 Lot into 40 Lots) plus New Road over 3 Stages
Dear Assessment Manager,
I/We, the undersigned, formally lodge this submission objecting to the above-referenced development application (RAL25/0044) for a 40-lot subdivision at Lysdale Road, Wondai.
A detailed review of the application materials reveals that while the proposal may mathematically meet the 4,000m² minimum lot size for the Rural Residential zone, it represents a severe over-intensification of a highly constrained site. The proposal fails to satisfy multiple assessment benchmarks within the South Burnett Regional Council Planning Scheme v2.0 and the Wide Bay Burnett Regional Plan 2023.

Our grounds for objection are detailed below.
Ground 1: Procedural Flaws and Inadequate Public Notification (Section 53 of the Planning Act 2016) We formally raise a procedural objection regarding the severe inadequacy of the public notification process for this application.
• Restricted Public Opportunity: Under Section 53(3)(b) of the Planning Act 2016, Council must consider whether any gaps in the notification process have "restricted the public's opportunity to make properly made submissions". The extensive suite of highly technical application materials was not made available to the public on the SBRC website until 19 February 2026—leaving only 6 business days for the community to review and respond before the 27 February deadline.
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• Creation of Barriers (Conflict with AO18.2): Acceptable Outcome AO18.2 of the SBRC Reconfiguring a Lot Code strictly mandates that "Proposed boundaries do not create additional barriers to species movement". Subdividing this continuous habitat into 40 individual lots will introduce miles of restrictive boundary fencing, effectively severing the natural wildlife corridor.
• Introduction of Fatal Threats: The South East Queensland Koala Conservation Strategy and the Wide Bay Burnett Regional Plan explicitly identify domestic animals, car strikes, and urban infrastructure as primary threatening processes to vulnerable species. Transforming a quiet, heavily vegetated block into a high-traffic subdivision with 40 new households introduces a massive influx of domestic dogs, cats, and daily vehicle movements. The cumulative impact of high-density fencing, pets, and traffic will have a devastating impact on the local Koala population and confirmed MSES species

attempting to navigate their natural habitat.
Ground 4: Climate Change Impacts, Carbon Loss, and Urban Heat Island Effect The massive clearing of 17.27 hectares of mature native vegetation represents a significant loss of an established carbon sink, directly contradicting the climate resilience objectives of both local and state planning instruments.
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• Evacuation Risk: The proposed subdivision layout directs all 40 new lots (potentially 80+ vehicles) out through a single, newly created intersection ("New Street 1") merging into the Hustons Road and Hines Road junction. In the event of a rapid-moving bushfire, creating a single-point evacuation chokepoint for 40 households poses an unacceptable risk to life and public safety. This fails PO2 of the Bushfire Hazard Overlay Code, which requires site access to be designed to allow safe evacuation.
Ground 6: Alteration of Flood Hazards and Loss of Natural Hydrological Buffers The north-western portion of the site is constrained by the Flood Hazard Overlay, featuring a major retention basin dam, and the Ecological Assessment confirms the site contains two Stream Order 1 watercourses.
• Loss of Essential Vegetative Buffers: The massive clearing of 17.27 hectares of existing trees, shrubs, and groundcover strips the site of its natural capacity to intercept rainfall and physically slow overland flow. Without this essential habitat buffer, excess surface water will rush across the newly compacted land at a much higher velocity.
• Conflict with Flood Hazard Overlay: PO20 and AO20 mandate that development must "directly, indirectly and cumulatively" avoid any significant increase in water flow or velocity, and must not result in the "acceleration of flows". Accelerating water velocity through massive vegetation clearing manipulates natural overland flow paths, shifting accelerated flood and erosion risks to downstream rural properties.
Ground 7: Cumulative Impacts of 40 On-Site Wastewater Systems The application proposes that all 40 new lots will rely on individual on-site sewerage facilities (OSSFs).
• Conflict with Water Catchments Overlay: The introduction of 40 separate wastewater treatment systems in close proximity—on a site confirmed to contain two stream order 1 watercourses—poses an extreme risk of cumulative nutrient and pathogen loading into the site's natural drainage features. This fails to satisfy PO22 of the Reconfiguring a Lot Code, which requires "no significant adverse effects on water quality". The cumulative saturation of effluent across 40 lots during severe wet weather events poses an unacceptable contamination risk to the local catchment.
Conclusion: While the proposal may meet mathematical area minimums, it represents a severe over-intensification of a site constrained by bushfire hazards, flood hazards, MSES wildlife habitat, and high-value native vegetation. The clearing of 17.27 hectares of Category B vegetation and the reliance on 40 individual on-site sewage systems feeding into a single local road network poses an unacceptable threat to the Wondai

environment and public safety.
This application fails to comply with the core performance outcomes of the South Burnett Regional Council Planning Scheme v2.0 and contradicts the environmental objectives of the Wide Bay Burnett Regional Plan.
On these grounds, we respectfully request that Council formally REFUSE Development Application RAL25/0044.
Yours sincerely,
Name: [Suzanne Joy Tonga] [redacted]

SOUTH BURNETT REGIONAL COUNCIL

SOUTH BURNETT REGIONAL COUNCIL
20 FEB 2026
KINGAROY OFFICE
Int: ..

**CEO APPROVED FORM: 3047594**
**Version 2 – June 2023**
**Liveability – Environment & Planning**

# Public Submission

**PRIVACY COLLECTION NOTICE:** South Burnett Regional Council collects your personal information for the purpose of processing this form and for use in any Council matters. Your personal information is handled in accordance with the *Information Privacy Act 2009* and will only be disclosed to a third party as per the South Burnett Regional Council Information Privacy Policy. **A hard copy of the electronic document is considered uncontrolled when printed.**

This form has been provided to assist in lodging a submission with respect to a development application. The *Planning Act 2016* (Qld) states that only a 'properly made submission's will be considered. A 'properly made submission' **MUST: -**

- Be signed by each person (the submission makers) making the submission;
- Be received during the notification period;
- State the name and residential or business address;
- State clearly objections to, or support for the proposed development; and
- Be made to South Burnett Regional Council via mail or email to info@sbrc.qld.gov.au.

| **Section 1 – Application details** | |
|---|---|
| Proposal description | RECONFIGURATION OF A LOT (LAND SUBDIVISION) 1 LOT INTO 40 LOTS LOCATED AT LYSDALE RD WONDAI |
| Applicant/s full name | URBAN PLANET TOWN PLANNING CONSULTANTS |
| Application number | RAL 25/0044 |
| Address of application | LOT 59 SP 184725 LYSDALE RD, WONDAI. 4606 |

**Section 2 – Grounds for submission (Attach more pages if required)**

SEE THREE PAGE DOCUMENT ATTACHED

☒ More pages attached

| **Section 3 - Details of submitter/s** | |
|---|---|
| Submitter/s name/s | TRISTAN AND LYN ROBERTS |
| Postal address | [redacted] |
| Residential address | |
| Signature | |
| Date | 18/2/2026 18/2/2026 |

**Note: Submissions are not confidential and may be made available through the public scrutiny process**

**PUBLIC SUBMISSION FROM**

**TRISTAN AND LYN ROBERTS**

[redacted]

**Re**

**PROPOSED DEVELOPMENT**

**LYSDALE ROAD, WONDAI 4606**

**LOT 59 ON SP184725**

**PAGE 1 OF 3**

To Whom it May Concern

Please accept our submission expressing concern regarding the proposed development described above.

While we understand the national need for additional housing and the owners wish to capitalise on their investment, we believe the proposed development could be modified to address our concerns and improve the amenity for those living there and in adjacent areas.

Our concerns fall into two categories which are detailed below along with possible modifications to minimise those concerns.

**1 ENVIRONMENTAL CONCERNS**

The area proposed for redevelopment is a significant remnant of native bushland that provides habitat for, and sustains a wide range of plants and animals. It is sandwiched between farmland and residential land with no significant connection to similar habitat.

The proposal as described will destroy approximately 75% of this habitat with a proportionate impact of the wildlife, given the lack of connection to similar habitat all but the highly mobile wildlife will most likely perish.

We note that no environmental offsets are proposed to compensate for the habitat loss and climate change impacts

Many species of native animals inhabit this area and range out into the adjoining properties to feed, they are dependant on the tree hollows, native vegetation, fallen logs and leaf litter within this area for breeding, food sources and refuge.

Mammal species we have observed on this land are Red neck wallaby, Eastern grey kangaroo, Koala, Sugar glider and Echidna. A proper survey including trapping would undoubtably reveal a range of smaller more elusive mammals. The sugar gliders are regularly seen emerging from this area in the evening to feed in adjoining properties, they no doubt breed in the tree hollows on this property. Removal of their breeding sites would no doubt eliminate the population as no suitable habitat is available in the immediate vicinity

Bird species are numerous with many using the older trees with hollows for nesting.

[redacted]

[redacted]

**PUBLIC SUBMISSION FROM**

**TRISTAN AND LYN ROBERTS**

[redacted]

**Re**

**PROPOSED DEVELOPMENT**

**LYSDALE ROAD, WONDAI 4606**

**LOT 59 ON SP184725**



We note that the ecological assessment report Appendix *C Likelihood of Occurrence Assessment, Threatened and Migratory fauna, page 70,* stated that Brown Treecreepers were not sighted and unlikely to occur, this is **incorrect** as we have personally seen these birds on this land the last observation was only two weeks ago, this observation casts doubt on the voracity and accuracy of assessment.

We also note that we have heard powerful owls calling on this land

Lace monitors, red bellied black snakes, carpet pythons and various species of dragons have also been observed on this land.

While it is environmentally better that the entire redevelopment is rejected, we propose the following amendments that will provide a better environmental outcome for the wildlife and future residents. See A, B, C, D and E below

A. The three largest lots 21,29 and 30 should have their building envelopes removed and become non- residential land. Ideally, they should be converted to covenanted wildlife reserves, or similar. The developer should also rehabilitate the damage already done to these proposed lots by recent clearing and bulldozing of tracks

B. The developer should provide environmental offsets in close proximity to the development such as providing and installing nesting boxes and indigenous plants to adjacent properties willing to have them

C. Land clearing for each stage should only be performed when that stage is to be commenced, giving wildlife a more gradual chance to adapt.

D. Land clearing should not be "clear fell" in nature, a portion of large and dead trees should be spared to ease the impact on wildlife particularly koalas, sugar gliders and birds that require hollows for nesting.

E. Given the inaccuracy noted the ecological assessment, council should request that the developer perform a more extensive and accurate survey of species inhabiting the land.

[redacted]

[redacted]

**PUBLIC SUBMISSION FROM**

**TRISTAN AND LYN ROBERTS**

[redacted]

**Re**

**PROPOSED DEVELOPMENT**

**LYSDALE ROAD, WONDAI 4606**

**LOT 59 ON SP184725**



**2. INCREASED TRAFFIC FLOWS ALONG HUSTONS RD, HINES RD AND SLATERS RD .**

We note that while the address of this lot is Lysdale Road there is no egress from the proposed housing estate onto this road.

All of the traffic from the propose 40 lots will have to travel along the 3 roads listed above significantly increasing the number of vehicles on these residential roads. The associated noise and potential safety issues will impact existing residents.

There are no footpaths along these quiet residential roads and they are used by a significant number of locals for recreation such as walking, jogging, bicycle riding etc. Increased traffic flows will represent a safety hazard to pedestrians using the roads.

In the event of a bush or grassfire residents of all 40 lots will have to exit via a single road as there is no proposed egress onto Lysdale Rd

Should all or part of the development be approved we propose the following to preserve safety and amenity for existing residents and those in the redevelopment, see A, B, C and D below

A. The developer installs footpaths along the abovementioned roads to ensure safety of pedestrians exposed to increased traffic.

B. A speed limit of 40 kph be introduced on the abovementioned roads

C. Speed limiting devices be placed on the roads

D. An exit onto Lysdale Rd be included in the plan, this would reduce traffic on the above mentioned roads and would most likely alleviate the need for recommendations A, B and C above. It would also provide an additional egress road for residents of the development in the event of grass or bush fire

Tristan Roberts Lyn Roberts

[redacted]

# 14 INFRASTRUCTURE

## 14.1 RENAMING MILL STREET, BROOKLANDS

**File Number:** **15-04-2026**

**Author:** **Manager Works**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Requesting Council rename a portion of Mill Street, Brooklands to Old Station Road.

### SUMMARY

A request was received by Council to rename Mill Street to Old Station Road to reduce confusion to residents and visitors to the Brooklands area.

The matter was laid on the table at the Council General Meeting on 15 October 2025.

---

### OFFICER'S RECOMMENDATION

That the matter be lifted from the table.

That South Burnett Regional Council:

1. Rename the start of Mill Street to Old Station Road (Kingaroy Cooyar Road to the intersection of the Mill Street Road Reserve); and;
2. The unformed unmaintained reserve continues to be known as Mill Street.

### FINANCIAL AND RESOURCE IMPLICATIONS

Financial and resource implications are minimal. As a result of renaming Mill Street casement to Old Station Road property rural address numbers are to be updated at Council cost, estimated to be under $1000.

### LINK TO CORPORATE/OPERATIONAL PLAN

IN1 - Continue to provide sound asset management strategies to maintain and improve Council's Road network, bridges, drainage and street lighting.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Stakeholders within internal branches have been consulted. These include Council Infrastructure Works and Technical Services branches. Council also invited the residents of Mill Street and Old Station Road to provide feedback on the proposal. Since, Council officers have been successful in contacting all but one of property owners, who are supportive of the recommendation to rename the section to Old Station Road.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

N/A

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

Reference is made to Council's Infrastructure Asset Naming Policy.

### ASSET MANAGEMENT IMPLICATIONS

Asset register will need to be updated to reflect changes.

**REPORT**

Council received correspondence in August 2024 regarding the naming of Mill Street and Old Station Road, Brooklands.

Upon review of the current layout, Council officers proposed two options. These options were presented to the property owners on the impacted road segments via a letter dated 30th September 2024 with a survey form to provide their feedback.

Current Layout

Currently the name blade identifies this road as Old Station Road from Kingaroy Cooyar Road, however the road casement is formally named Mill Street for the first 86m. There are four properties that adjoin this portion of road that are addressed to Mill Street.

Option 1

The first option is to recognise Old Station Road as starting at the intersection with Kingaroy Cooyar Road. Mill Street will continue to be an unmaintained road reserve to the west from Old Station Road. Council will work with the State to have the road reserve name amended to Old Station Road and property addresses currently 1,2,4 and 6 Mill Street will change to Old Station Road.




Option 1: Old Station Road begins at Kingaroy Cooyar Road intersection

Option 2

The second option is to retain Mill Street for the first 86m from the intersection with Kingaroy Cooyar Road and along the unmaintained road reserve behind the properties. Council would move the signage so Old Station Road begins at the intersection with Mill Street and Mill Street signage would move to the Kingaroy Cooyar Road intersection.




Option 2: Mill Street begins at Kingaroy Cooyar Road intersection, Old Station Road begins at Mill Street intersection

Of the five property owners, two survey responses were received, both were in favour of Option 1 – extending the road name of Old Station Road to Kingaroy Cooyar Road. Direct consultation with each of the remaining residents has been sought in February 2026, owner of 2 Mill Street has not been able to be contacted, however all other are supportive of the change of name to the section.

It is recommended that Council proceed with Option 1 and rename the start of Mill Street to Old Station Road (Kingaroy Cooyar Road to the intersection of the Mill Street Road Reserve).

**ATTACHMENTS**

**Nil**

## 14.2 LOCAL RESILIENCE ACTION PLAN (LRAP)

**File Number:** **2026-04-15**

**Author:** **Disaster Management Officer**

**Authoriser:** **Chief Executive Officer**

### PRECIS

Local Resilience Action Plan (LRAP)

### SUMMARY

Local Resilience Action Plan (LRAP) – Initial adoption of prioritisation and submission to the Queensland Reconstruction Authority for future funding programme considerations.

---

### OFFICER'S RECOMMENDATION

That South Burnett Regional Council endorse the current Local Resilience Action Plan (LRAP) and adopt initial priorities for submission to the Queensland Reconstruction Authority.

### FINANCIAL AND RESOURCE IMPLICATIONS

Nil

### LINK TO CORPORATE/OPERATIONAL PLAN

EC15 Continue to provide pro-active support to the Local Disaster Management and Recovery Groups.

### COMMUNICATION/CONSULTATION (INTERNAL/EXTERNAL)

Internal workshops with Councillors regarding proposed projects and the prioritisation of them based on future financial programmes becoming available.

### LEGAL IMPLICATIONS (STATUTORY BASIS, LEGAL RISKS)

N/A

### POLICY/LOCAL LAW DELEGATION IMPLICATIONS

N/A

### ASSET MANAGEMENT IMPLICATIONS

N/A

### REPORT

The existing Local Resilience Action Plan was created with Queensland Reconstruction Authority as a result of the Burnett Regional Resilience Strategy in 2018 (Attachment 1).

A key part of our shared resilience work is the review and further development of South Burnett Regional Councils Local Resilience Action Plan (LRAP). This plan helps Council identify, prioritise and deliver targeted resilience projects, that reduce risk, support recovery and build long-term resilience that aligns with the *Queensland Strategy for Disaster Resilience (QSDR)* and other key frameworks.

Importantly, Council's LRAP also provides visibility to the Queensland Reconstruction Authority (QRA) of local priorities, helping us to shape targeted funding programs, and ensuring strong alignment with state and national investment strategies. LRAPs have been used to identify projects

for programs such as the $95 million Crucial Links program and will be used in this manner for future funding opportunities.

**ATTACHMENTS**

1. **Attachment 1 - Burnett River Catchment Flood Summary**
2. **2026 LRAP**



# A connected catchment

## Burnett Catchment Flood Resilience Strategy – an overview

***A pilot partnership to improve flood resilience across the Burnett River Catchment***

**May 2018**

WBBROC BUNDABERG REGIONAL COUNCIL SOUTH BURNETT REGIONAL COUNCIL NORTH BURNETT REGIONAL COUNCIL Queensland Government

**Document details:**

| | |
|---|---|
| Security classification | Approved |
| Date of review of security classification | May 2018 |
| Authority | Queensland Reconstruction Authority |
| Author | Executive Director, Resilience |
| Document status | Final |
| Version | 1.0 |

**Contact for Enquiries:**

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Queenslanders are disaster resilient when...



# Foreword

## A connected catchment is a resilient catchment.

**The Burnett region has endured several severe weather events in recent years, from the devastating floods of 2013, to local flooding from heavy rainfall and significant property damage from severe thunderstorms.**

These experiences have taught us to value the things that make us resilient - our networks, our sense of community, our connection to the landscape and our strong desire for a happy and healthy lifestyle.

It is by building on these strengths that our region will prosper into the future. A future where we are better able to cope with whatever nature throws our way, and where everyone works together across the catchment to create shared solutions to common problems.

*A Connected Catchment - the Burnett Catchment Flood Resilience Strategy* provides the blueprint to get us there. We are pleased to have the opportunity to work collaboratively across local governments and in partnership with the Queensland Government and other local stakeholders to deliver this state-first approach to flood resilience.

The pilot project was delivered in partnership with the Bundaberg Regional Council, Cherbourg Aboriginal Shire Council, North Burnett Regional Council, South Burnett Regional Council, Wide Bay Burnett Regional Organisation of Councils and the Queensland Reconstruction Authority.

We are proud that the Burnett Catchment has been the first pilot project for a catchment-scale flood resilience plan in Queensland, and hold high hopes that this Strategy sets a new course for how resilience to floods and multi-hazards is improved across Queensland.

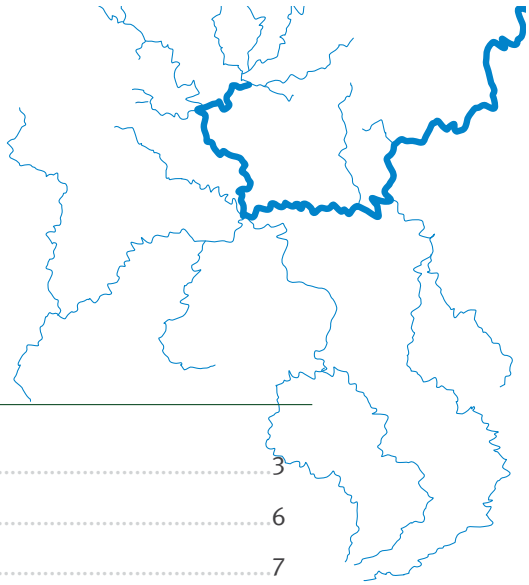


**Councillor Mick Curran**
Chairman of the Wide Bay Burnett Regional Organisation of Councils



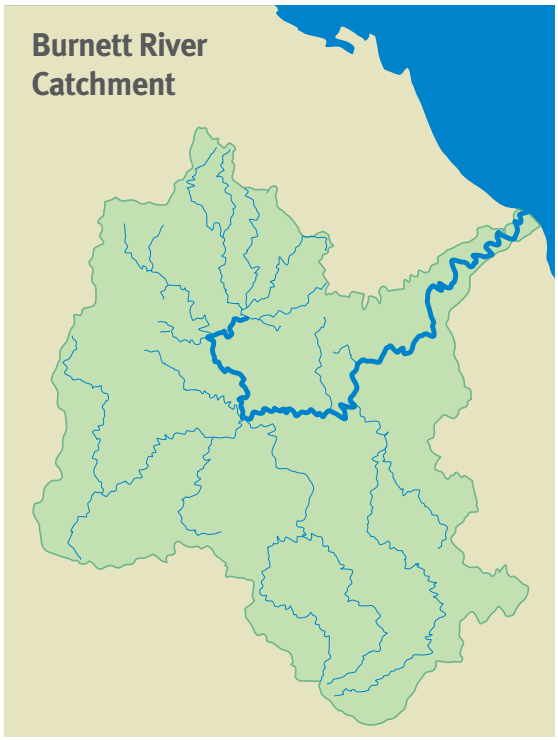

The following organisations were involved in the development of the *Burnett Catchment Flood Resilience Strategy*:

- Wide Bay Burnett Regional Organisation of Councils
- Bundaberg Regional Council
- Cherbourg Aboriginal Shire Council
- North Burnett Regional Council
- South Burnett Regional Council
- Queensland Reconstruction Authority
- Department of State Development, Manufacturing, Infrastructure, and Planning
- Department of Transport and Main Roads
- Queensland Fire and Emergency Services
- Department of Agriculture and Fisheries
- Department of Environment and Scienc
- Department of Premier and Cabinet



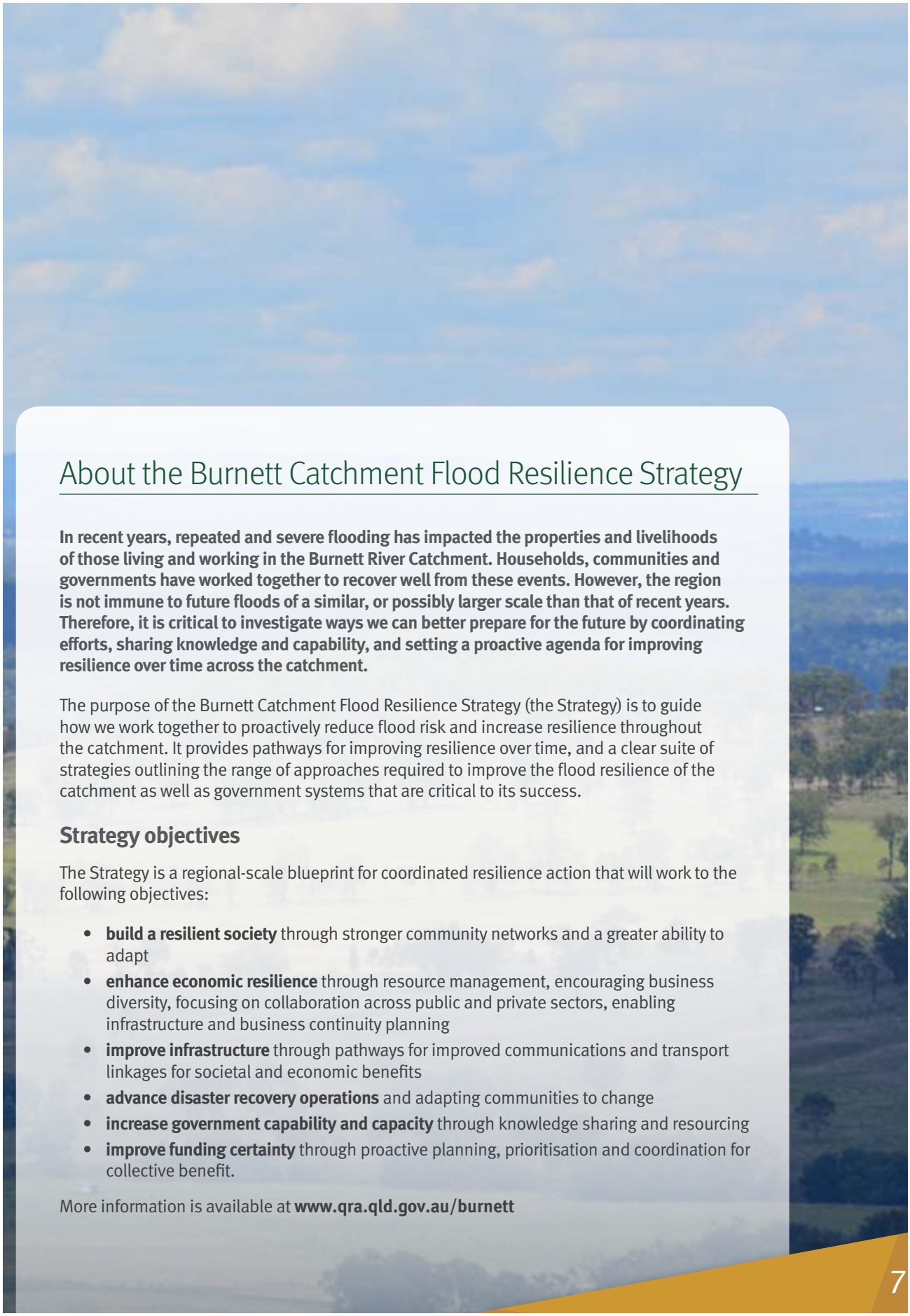
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This document outlines a consistent and coordinated approach to managing flood risk across the Burnett River Catchment. The catchment includes the four local government areas of Bundaberg Regional Council, Cherbourg Aboriginal Shire Council, North Burnett Regional Council and South Burnett Regional Council.


Our shared vision of flood resilience
We are well practiced in preparing for, dealing with and recovering from flood impacts.
We collaborate across boundaries, disciplines and industries to stand together 'as one'.
We value our local knowledge and eagerly share this with others for the benefit of our catchment-wide community.
We demonstrate grassroots leadership in flood risk management – built from a sense of community wellbeing and connectedness.
We harness the power and capability of our on-the-ground networks of people – formal and informal.
We take timely and committed action for collective benefit.
Our reliance on each other in the face of disasters is what makes us resilient.
We are a connected catchment.
6



# About the Burnett Catchment Flood Resilience Strategy

**In recent years, repeated and severe flooding has impacted the properties and livelihoods of those living and working in the Burnett River Catchment. Households, communities and governments have worked together to recover well from these events. However, the region is not immune to future floods of a similar, or possibly larger scale than that of recent years. Therefore, it is critical to investigate ways we can better prepare for the future by coordinating efforts, sharing knowledge and capability, and setting a proactive agenda for improving resilience over time across the catchment.**

The purpose of the Burnett Catchment Flood Resilience Strategy (the Strategy) is to guide how we work together to proactively reduce flood risk and increase resilience throughout the catchment. It provides pathways for improving resilience over time, and a clear suite of strategies outlining the range of approaches required to improve the flood resilience of the catchment as well as government systems that are critical to its success.

## Strategy objectives

The Strategy is a regional-scale blueprint for coordinated resilience action that will work to the following objectives:

- **build a resilient society** through stronger community networks and a greater ability to adapt
- **enhance economic resilience** through resource management, encouraging business diversity, focusing on collaboration across public and private sectors, enabling infrastructure and business continuity planning
- **improve infrastructure** through pathways for improved communications and transport linkages for societal and economic benefits
- **advance disaster recovery operations** and adapting communities to change
- **increase government capability and capacity** through knowledge sharing and resourcing
- **improve funding certainty** through proactive planning, prioritisation and coordination for collective benefit.

More information is available at **www.qra.qld.gov.au/burnett**

# Integrated catchment planning

## Resilience that is locally led, regionally coordinated and state facilitated

**The Strategy is built upon a new philosophy in disaster resilience practice. It ties together traditional aspects of the disaster management cycle and links them to broader social, economic, environmental, and settlement systems.**

In the past, reliance has been placed on hard infrastructure as a means of improving resilience. While mitigation infrastructure, and catalysing and connecting infrastructure remain critical for resilience, this new philosophy values the need to advance community, individual and resilience solutions just as much as hard infrastructure.

Combining national best practice flood risk management with integrated catchment planning is a new take on the traditional process of flood risk management.

Integrated catchment planning recognises that complex inter-relationships exist across the catchment. It offers a systematic approach to integrated, cross-discipline opportunities, which consider the entirety of the area contributing to our floodplain.

> *Strategic flood risk management is the process of data and information gathering, risk analysis and evaluation, appraisal of options, and making, implementing, and reviewing decisions to reduce, control, accept, or redistribute flood risks. It is a continuous process of analysis, adjustment and adaptation of policies and actions taken to reduce flood risk (including modifying the probability of flooding and its severity as well as the vulnerability and resilience of the receptors threatened). Strategic flood management takes place as part of a wider approach of integrated basin (or coastal) planning and focuses on reducing flood risks and promoting environmental, societal and economic opportunities (both now and in the longer term). It recognises that risks can never be removed entirely and that reducing risk is often at the expense of other societal goals.*
>
> *Paul Sayers (2017)*




*Components of the Integrated Catchment Planning Approach for the Burnett River Catchment*

# Burnett River Catchment at a glance

## Our catchment

- 88,500 residents
- $393M reconstruction costs 2011-17
- 33,000 km² in area
- 525 km flood affected state roads
- 40,600 properties
- 38% flood affected agricultural land
- $11.96B gross regional product

## Our community




**Other considerations include:**

- seasonal workers
- tourists
- vulnerable persons

Burnett River Catchment
Queensland

65 YEARS or over
24.9%
16%

14 YEARS & under
23.1%
25.8%

INDIGENOUS POPULATION
6.8%
4.3%

PERSONS WITH DISABILITY
16.1%
10.3%

LIMITED ACCESS
7.4%
6.5%

LOW INCOME
37.9%
23.3%

9



# Flood history and behaviour

## Location and history

The Burnett River is located on the southern Queensland coast with the mouth of the river located north of the City of Bundaberg. The total area of the catchment is about 33,000 square kilometres with a population of approximately 88,500 people. The Burnett River rises in the Dawes Range, north of Monto and flows south through Eidsvold and Mundubbera. Along the way it is joined by the Nogo and Auburn Rivers, which drain large areas in the west of the catchment. To the immediate west of Mundubbera, the main river is joined by the Boyne River, draining areas from the south before beginning its north-easterly journey to the coast. Between Gayndah and Mt Lawless, the Barker-Barambah Creeks system joins the Burnett River.

The Burnett River continues to flow in a north-easterly direction to Paradise Dam before moving through to Bundaberg and past Burnett Heads where it meets the Pacific Ocean, discharging into coastal waters at the southernmost extent of the Great Barrier Reef Marine Park.

Major flooding in the Burnett River is relatively infrequent. However, under certain meteorological conditions such as a tropical low pressure system, heavy rainfalls can occur throughout the catchment resulting in significant river level rises and floods. These floods can cause considerable damage to rural properties along the rivers and to the commercial and residential areas in some of the smaller towns in the area and in Bundaberg. They can also represent a significant risk to people.

Pre-dating current records, local indigenous history speaks to ‘the big floods’ occurring across the North Burnett, indicating that floods of higher magnitude have and can occur within the Burnett River Catchment.

Flooding in the northern part of the catchment is usually a function of how much rain has fallen in the Dawes Ranges north of Monto, and the hinterland areas that drain into the Boyne and Auburn Rivers.

Significant floods tend to result from large rainfall events that occur in the northern part of the catchment. Given the southerly track of tropical lows and ex-cyclones from the tropics, this is typically the first section of the catchment to receive rainfall. As rainfall patterns move further into the catchment in a south-westerly and/or south-easterly direction, the river starts rising from its headwaters north of Monto.

Rainfall over the western and southern parts of the catchment can result in the Boyne and Auburn Rivers beginning to flood, while Barambah Creek and the Stuart River will also run where rain falls in the southern and eastern areas of the catchment.

Flooding in the southern part of the catchment, drained by Barambah Creek and the Stuart River, tends to occur quickly with limited warning for residents. This is a function of how water flows down off the Bunya Ranges on its way to joining the main Burnett River waterway.

Flooding south of Paradise Dam can occur in multiple ways. Flooding from the upper catchment can make its way over the Dam and through to Bundaberg, while rain falling in the Mount Perry area and other locations south of the Dam can also lead to flooding of the Lower Burnett River into Bundaberg.

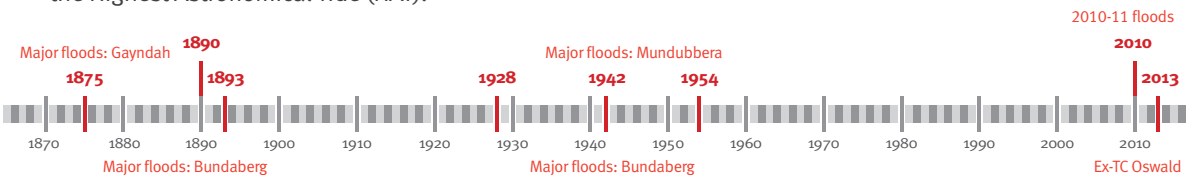
More localised flood events are possible throughout the myriad of creeks in the catchment caused from local rainfall. This is due to the susceptibility of the region to severe storms, which can be very intense. Creeks susceptible to such flooding include Reid Creek near Gayndah, Harkness Boundary Creek through Eidsvold, and overland flow locations around Proston and Hivesville.



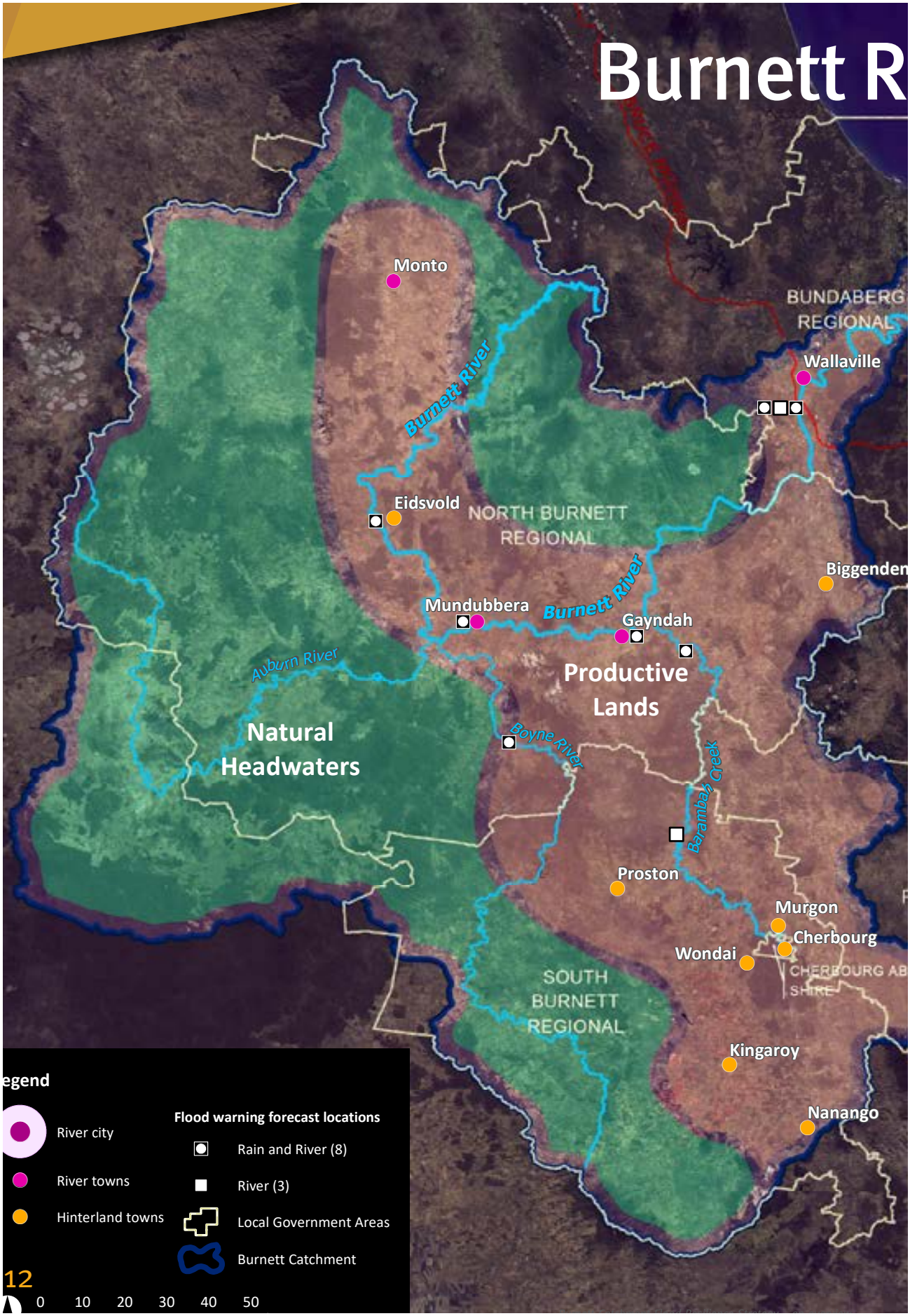
*Reid Creek near Gayndah*

## Timeline of flood events

Major floods have been recorded at Bundaberg since 1875, with the most significant event occurring in January 2013 when the river rose to 9.53 metres, approximately 7.34 metres above the Highest Astronomical Tide (HAT).

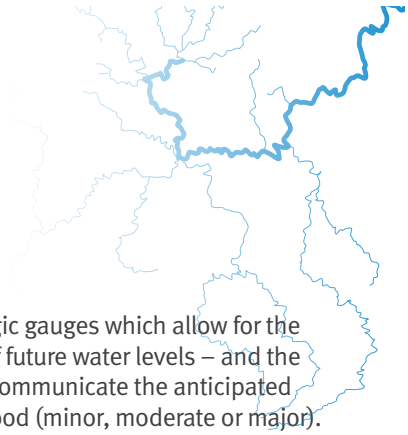



At Gayndah, flood records extend back to 1864 with more than 15 events recorded that exceeded the 10 metre level and seven events over 15 metres. In Mundubbera, the Bureau of Meteorology flood record commences from 1942 when the river peaked at 23.62 metres. Since then, floods have been well below this level.

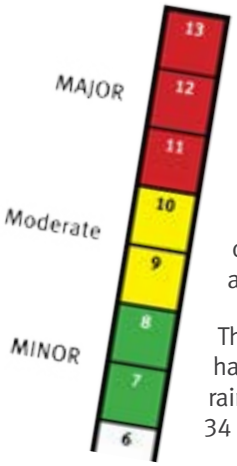

Burnett R
Monto
BUNDABERG REGIONAL
Wallaville
Burnett River
Eidsvold
NORTH BURNETT REGIONAL
Biggenden
Mundubbera
Burnett River
Gayndah
Auburn River
Productive Lands
Natural Headwaters
Boyne River
Barambah Creek
Proston
Murgon
Cherbourg
Wondai
SOUTH BURNETT REGIONAL
Kingaroy
Nanango
egend
River city
River towns
Hinterland towns
Flood warning forecast locations
Rain and River (8)
River (3)
Local Government Areas
Burnett Catchment
12
0 10 20 30 40 50




# Catchment



## The catchment flood warning network




Across Queensland, flood warnings are issued by the Bureau of Meteorology and relate to 'flood classifications' of minor, moderate and major. These flood classifications allow communities to understand the flood level which has been forecast. These forecasts are derived from the flood gauge network across the catchment.

The Burnett River Catchment currently has a total of 162 gauges comprising 57 rain stations, 71 rain/river stations and 34 river stations.

The Burnett River Catchment also has eight forecast locations. Forecast locations are strategic gauges which allow for the forecast of future water levels – and the ability to communicate the anticipated class of flood (minor, moderate or major). This allows the community to effectively manage and mitigate the flood risk in their given locations.

These forecast locations include Eidsvold Bridge, Dunollie, Mundubbera, Gayndah, Stonelands, Brian Pastures, Walla and Bundaberg. They are supported by numerous upstream gauges providing the necessary data and information for forecast flood heights to be developed by the Bureau of Meteorology across the catchment.

## Mid and lower catchment – flooding of the coastal plain

Downstream and where catchment creeks and tributaries enter the Burnett River, communities within *river towns* generally receive a period of warning that flood waters are on their way.

Whilst this area receives greater warning times, inundation levels tend to be higher. The impact on these towns is significant. In serious events, floodwaters can rise very quickly – catching people off-guard in potentially dangerous situations – and causing loss of, and disruption to, essential infrastructure.

Flooding of the *river city* floodplain can be extreme, both in depth and water velocity. In 2013, a number of homes in North Bundaberg were the subject of flood-induced scouring whereby floodwaters swirling around the pylon foundations of raised Queenslanders eventually lead to deep scour 'holes' beneath the dwellings. These dwellings were so substantially impacted they collapsed into the scour holes, several metres deep.

Flood impact throughout Bundaberg tends to be widespread, as it is the lowest point of the catchment before floodwaters discharge to the Pacific Ocean. Bundaberg has required evacuation of significant portions of the population due to flooding.

## Upper catchment – fast rate of rise and overland flow

The undulating terrain in many parts of the catchment creates mini-catchments that can result in fast flows of water (flash flooding) after significant deluges. Hinterland towns, natural headwaters and upper-catchment productive lands are particularly susceptible to this type of risk. This gives rise to higher levels of risk, as a combination of limited warning time (if any) and fast-flowing water can take people by surprise.

Overland flow events can disrupt agricultural production by eroding contour banks and causing significant damage or complete loss of crops, and cause the isolation of entire communities across the catchment.

# Catchment flood exposure

## Direct personal and property impact

**With more than 40,000 dwellings located across the catchment, residential areas represent one of the more common flood-affected land uses in terms of impact on property. Residential areas within Bundaberg, as the most urbanised centre within the Burnett River Catchment, are unsurprisingly more susceptible to flooding impacts.**

Areas including Bundaberg North, Avoca, Bundaberg South and Bundaberg East are amongst those areas most heavily affected, which is reflected by the *Bundaberg 10 Year Action Plan*. Outside of Bundaberg City, upstream locations are also significantly affected including Branyan, Sharon, South Kolan and Wallaville.

In South Burnett, locations such as Kingaroy, Nanango, Memerambi, Hivesville, Coolabunia, Wooroolin and Proston are particularly susceptible to flooding, in addition to Cherbourg. In North Burnett, residential areas within towns and surrounding areas of Gayndah, Mundubbera, Mount Perry and Eidsvold are also exposed, with 50 per cent of residential properties in North Burnett identified as subject to possible flood impact.

Across the catchment, a considerable proportion of rural dwellings are also exposed to flood risk and isolation.

## Roads

The day-to-day activities of the catchment are supported by a complex infrastructure network which becomes all the more essential before, during and after floods. The ability to move around the catchment as well as to maintain access to electricity, water supply, sewer and telecommunications are critical elements underpinning how our community functions in response to flood.

In terms of the road network, state controlled roads span some 1300 km across the catchment, with an estimated 525 km susceptible to potential flood impact. Due to their sheer size, both North Burnett and South Burnett comprise the highest percentages of potentially flood-affected state controlled roads.

Impacts on the catchment-wide road network can present challenges during and following major floods, where reliance upon this network is critical to restoring essential community services and supporting economic and employment activities which are the lifeblood of the catchment.



## Electricity and telecommunications networks

Substation infrastructure represents the most common element of the electricity network in the catchment. 11kV substations are the most prevalent – and the most susceptible to potential flood risk, with approximately 32 per cent of these located on land that is subject to potential flooding.

In North Burnett, approximately 52 per cent of all substations are located on land that is potentially susceptible to flood impact. In South Burnett approximately 23 per cent of substations could be impacted.

In terms of telecommunications networks, mobile blackspots remain a critical issue across the majority of the catchment, particularly within the Cherbourg, North Burnett and South Burnett local government areas. In addition, the recent switch across the catchment to the National Broadband Network has given rise to concerns relating to its need for power at both ends to operate (i.e. at home as well as at the node itself) thus requiring uninterruptible power supplies and/or solar or battery back-up.

## Schools and hospitals

Schools and hospitals are often the essence of local communities. In many cases, schools double as evacuation centres in times of need. This being the case, only a small number of school facilities are identified as susceptible to potential flooding, mainly to sporting fields rather than buildings.

15 hospital facilities are located across the Burnett River Catchment, with approximately eight hospitals subject to possible flood-related impacts. This does not necessarily mean buildings are inundated, but that major flood events may cause cascading impacts in terms of access to electricity, challenges for evacuation and continuity of care.

## Isolation

Many individual properties, localities and towns in the catchment can become isolated due to flooding for extended periods. Locations such as Stanmore in the North Burnett, and Wondai and Proston in the South Burnett can be isolated for several days, while communities such as Cherbourg, Murgon, and the larger towns of Eidsvold and Biggenden can be cut off from other towns for some time.

From an economic perspective, significant impacts upon supply chains can arise as a result of isolation and loss of road connectivity.

## Cascading risks to people

Floods often bring with them other 'cascading' risks. For example, in situations where evacuation is required or isolation occurs, access to essential medication can become an issue, in particular for people requiring daily treatment. This can also extend to lack of access to other essential needs such a food and water.

In instances where such situations are prolonged, public health issues may emerge, particularly during periods of high temperatures where there is no access to electricity, air conditioning and refrigeration. These conditions impact vulnerable people, especially the very young, elderly and the ill.

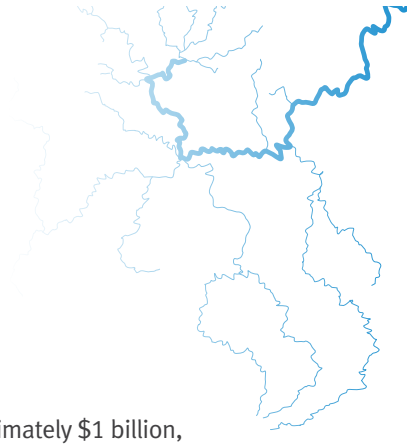
## Cascading risks to environment

In addition to flood induced scour, other cascading risks often emerge from flood events across the catchment. These often include the loss of vegetation in riparian zones, biosecurity issues and spread of weed species. In addition to environmental impacts along the Burnett floodplain, additional risks are felt as floodwaters discharge to the immediate south of the Great Barrier Reef Marine Park. These include potential threats to protected loggerhead, flatback and green turtle habitat and nesting sites at Mon Repos, as well as water quality and sediment-laden floodwaters entering the ocean to the south of the Great Barrier Reef Marine Park, located close to the mouth of the Burnett River Catchment.

## Long term recovery and emotional wellbeing

Major floods, along with the cumulative effects of repeated flood and other weather events, can take a toll. Sometimes, it can be years before communities recover – and some people may never fully recover depending upon the extent of trauma experienced. Each individual will experience floods and recovery in different ways. Recovery can sometimes be compounded by other social and economic impacts such as impact on family, friends and neighbours, and the financial burden of loss, damage and clean-up activities. In some cases, people may be unable to return to work or return to day-to-day activities previously enjoyed.

Flood recovery is often a very personal experience and can be particularly challenging for our most vulnerable members of the community. However, it can be supported through strong social connections within the community and careful pre-planning and preparedness.



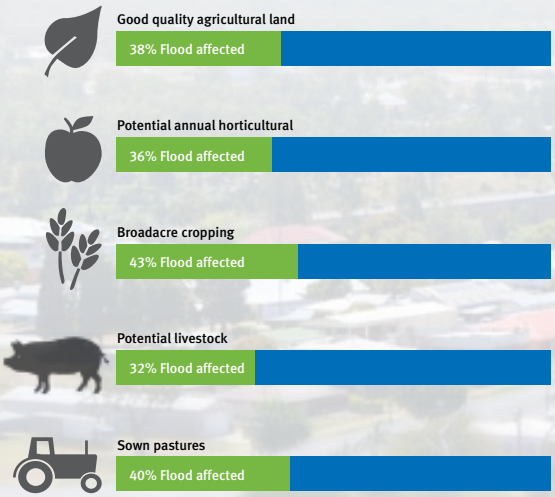
## Risks to primary production

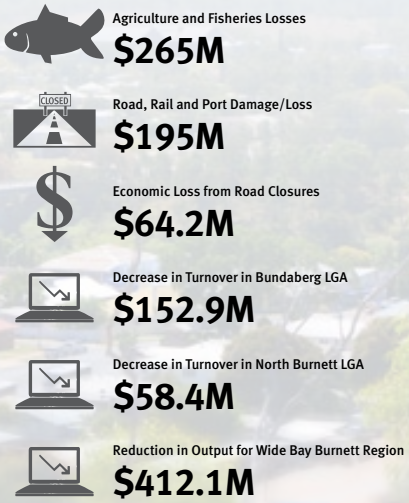
During 2010-11 the total value of agricultural output in the region was approximately $1 billion, with the largest commodity being vegetables which accounted for more than 29 per cent of the region's total agricultural output in value terms. The fertile floodplains upon which much of the catchment's agricultural activity occurs is also prone to flood risk. Recent events, particularly around Monto in the catchment's north, have led to cumulative crop losses over recent seasons – frustrating growers' attempts to diversify cropping and farming methods to recover from these impacts and reduce the impact of future events.

Approximately 38 per cent of good quality agricultural land throughout the catchment is susceptible to flooding. Whilst other industries may be able to recover relatively quickly following a flood event, the impact on agricultural activity can be long-lasting. Impacts include degraded soils as well as damaged and destroyed buildings, equipment, contour banks and fencing. This is in addition to the devastation of stock and crop losses that impacts not only the duration of recovery but the overall ability for business recovery.

Economic impact assessments conducted after Ex Tropical Cyclone Oswald in 2013 indicated agricultural and fisheries losses totalled approximately $265 million across Bundaberg and North Burnett alone, along with a number of other economic impact indicators, demonstrating the profound economic impacts generated by flood events.

### Economic impact of flood



# Aspirations for a resilient Burnett River Catchment

**Effective floodplain management requires an integrated and whole-of-catchment approach.**

This Strategy has been developed as a partnership between the Queensland Government, Bundaberg Regional Council, Cherbourg Aboriginal Shire Council, North Burnett Regional Council and South Burnett Regional Council. Collaboration and integrated engagement across this partnership has been critical to the successful development of this Strategy and has involved a multi-disciplinary approach involving professionals engaging in mental health, engineering, planning, community and economic development, disaster management, transport, environmental management and communications.

This multi-disciplinary approach has informed the development of four key resilience aspirations under the themes of a resilient society, resilient economy, resilient environment and resilient settlements. Holistically, these aspirations support the delivery of our shared vision and guide a regionally integrated approach to floodplain management across the Burnett River Catchment.

## A resilient society

We recognise and live comfortably with the prospect of flood as a part of life.

We anticipate flooding and we understand local flood behaviour and what it means for us. We know what to do when action is needed. We have the ability to bounce back quickly and with minimal impact – both physically and emotionally. We understand the risk that flooding presents in how we go about our day-to-day lives and we share responsibility for our own resilience and that of our families and community. We work together to look out for and help those who need it. We care for and respect one another and the environment in which we live, work and play, especially during times of flood.

We work hard to maintain and build strong relationships, we know these networks are the lifeblood of our communities and stand us in good stead during times of recovery. We participate in the decisions which affect us.

We value being prepared.

## A resilient economy

We strengthen our local economy against flood impact.

Our experience of past flood, drought and storm events across our catchment has provided us with the ability to explore and identify opportunities to constantly enhance economic resilience to floods. We know the primary elements to enduring flood resilience includes a diverse economy, ensuring continuation of employment as well as the provision of goods and services to those in need. We take action to develop business continuity across industries and build strong supply chains to ensure our communities can bounce back as quickly as possible, with limited impact.

We know our rich primary production and agricultural industries are amongst our largest economic assets, but can remain vulnerable to the impact of flood.

We value collaboration across industries, and across government and private sectors. We value the depth and diversity of our small business offering, and the important role it plays in underpinning the wellbeing of our families, our towns and our communities. Combined with our major economic and employment activities, we are invested in leveraging our economic network – as part of an economic 'ecosystem' across the catchment.

We contribute to our individual and collective economic resilience.

## A resilient environment

We help our environment to recover quickly from flooding – naturally and sustainably.

We take action to protect our catchment from flood impacts. We know the importance of responding to issues such as soil erosion, loss of riparian vegetation, invasive weeds, the uncontrolled release of chemicals, and waste and land use management practices which can intensify flood impacts and reduce water quality.

We know a healthy and productive catchment is one which underpins and supports all other activity – from social, to physical, and economic activity. Our day-to-day lives are enhanced by the wellbeing of the rich environment in which we live. We know and value how much a resilient environment contributes to a resilient economy in our region – the livelihoods of nearly everyone in the region are connected in some way to the land.

We understand that flooding is a natural process that shapes and forms the landscape, that it can produce changes in riverine morphology and sedimentation, and can contribute to the overall condition of the Great Barrier Reef. We also know some changes caused by flood are of benefit to the environment, and we leverage these opportunities as they occur.

We focus on improving environmental catchment resilience by identifying and addressing key knowledge gaps and prioritising collaboration. We are informed contributors to the health and wellbeing of our catchment. We respect and value the ecology, biodiversity and cultural history of the catchment and take steps to protect and enhance these assets. We are environmentally responsible.

We care for country.

## Resilient settlements

Our built environment – our settlements and infrastructure – is the foundation upon which our communities thrive and prosper.

They are the hub for local access to employment, goods and services, and they support the strength of our rich primary production and agricultural industries. Our settlements underpin the social and economic activity of the catchment, connected by reliable infrastructure networks which support our community before, during and after flooding. We know the importance of system redundancy, particularly for critical items of infrastructure (water, sewer, electricity, telecommunications and roads) relied upon by our community.

Our community is well-versed in how flooding impacts our built environment. We know how important it is for emergency services and others to move around our towns and landscapes to help those who need it most, when they need it. Transport networks allow people to move about immediately after flood waters, recede enabling rapid access to resources and helping the community to respond and recover – socially, physically and economically.

We take action to concentrate settlement and infrastructure expansion in low risk areas. We value the many ways in which our built environment and its systems and networks help us to get back on our feet quickly, with the least amount of effort necessary. When we endure loss, we make sure to build back better.

We recognise the individual character and identity of the settlements which form our catchment. Each is different in its own way and we recognise that different communities have different expectations about how our built environment and its systems and networks perform during times of flood.

We understand that our own resilience and that of our families, community and visitors can reduce the pressure placed on these systems and networks at the time when they are most needed. We forward-plan our own redundancy and put measures in place to keep us going when we need it.

We support the essential services and built environment networks upon which we rely.

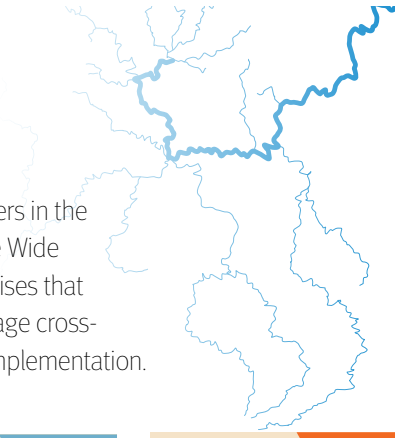

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# Strategic pathways t

A range of strategies to inform collaborative approaches to flood resilience activities in the catchment are identified, forming a regional 'blueprint' for coordinated action across the Burnett River Catchment.

| | | |
|---|---|---|
| **Resilient Society** | Change the conversation<br>**Severe weather is a fact of life in the catchment, not an aberration** | Understand and share the way the catchment and its systems work<br>**Improved data intelligence, monitoring and reporting** |
| **Resilient Economy** | Develop pathways for infrastructure resilience over time<br>**Make sustained improvements over time to support economic growth and community mobility** | Evolve land management and agricultural processes<br>**Increase capacity/capability to manage land more sustainably** |
| **Resilient Environment** | Develop a strategic environmental management approach, based on risk<br>**Deliver region-wide programs that address regional risks such as waste, weeds and riparian vegetation** | Increase focus on post-event environmental recovery<br>**Clarify pathways for recovery/ resilience funding for environmental purposes** |
| **Resilient Settlements** | Connect disaster management into land use planning<br>**Develop in a risk-responsive way, accounting for evacuation, isolation and inundation** | Build redundancy into infrastructure<br>**Focus on improving gaps in power and telecommunications over time** |

# trengthen flood resilience



Implementation of the Strategy will be delivered as a partnership amongst all stakeholders in the catchment, driven by local leadership and regional resourcing, under the auspices of the Wide Bay Burnett Regional Organisation of Councils. This approach to implementation recognises that while actions are best delivered locally, regional level support is also required to encourage cross-jurisdictional collaboration, provide technical assistance, and proactively assist project implementation.

Enhance contextualisation of data and warnings

**Speak in a language people understand**

Focus community awareness on risk, not just hazard

**Empower the community to make better, risk informed decisions**

Connect people to each other

**To improve health and wellbeing**

Enhance resource stewardship for economic and social sustainability

**A sustainable environment means a sustainable economy**

Business continuity planning as business as usual

**Lead awareness and action by small and medium enterprises to anticipate shocks**

Climate adaptation as business as usual

**Expand existing efforts across agriculture, business and government sectors to adapt to our changing environment**

Resilience in asset management and renewal

**Take opportunities to improve asset resilience in upgrade and renewal processes**

## Queensland Strategy for Disaster Resilience

*As Queenslanders, we are disaster resilient when:*

1. **we understand the potential disaster risks we face**
2. **we work together to better manage disaster risk**
3. **we seek new opportunities to reduce disaster risk**
4. **we continually improve how we prepare for, respond to and recover from disasters**

# Strategy outputs

As part of the Strategy, the following information has been produced for councils in the Burnett River Catchment:

- Technical Evidence Report
- Strategic action plan for further prioritisation and delivery overseen by Wide Bay Burnett Regional Organisation of Councils
- Governance strategy for enduring integrated catchment planning approaches
- Comprehensive list of existing resilience-related funding streams
- GIS mapping and data for local governments that can be further developed over time
- Education video about flood behaviour in the catchment.

## Pilot project for Resilient Queensland

The *Burnett Catchment Flood Resilience Strategy* has been delivered as a pilot project for *Resilient Queensland*, which is the implementation plan for the *Queensland Strategy for Disaster Resilience*. The success of this pilot project is informing the delivery of further pilot projects to deliver resilience strategies across a range of urban, rural, remote and coastal communities in Queensland. This Strategy along with further pilot projects will be evaluated in 2019, before plans are further implemented across Queensland. By 2021, all communities across Queensland will have a resilience strategy to support the goal of the *Queensland Strategy of Disaster Resilience*, which is to be the most disaster resilient state in Australia.

## Monitoring and evaluation

A key aspect of delivering the Strategy is the establishment of a clear standards-based implementation framework for integrated catchment planning. The identification and establishment of a 'resilience maturity' model-based approach to benchmarking will be developed in a collaborative effort as part of the implementation of the Strategy, with the support of the Queensland Reconstruction Authority (QRA).



## More information

Visit **www.qra.qld.gov.au/burnett** for further information about the *Burnett River Catchment Flood Resilience Strategy* and proposed actions

Visit **www.qra.qld.gov.au/qsdr** for further information about how this pilot project is delivering on *Resilient Queensland 2018-2021 – delivering the Queensland Strategy for Disaster Resilience*

Contact the QRA on **07 3740 1700**

Wide Bay Burnett Regional Organisation of Councils
**www.wbbroc.org.au**

Bundaberg Regional Council
**www.bundaberg.qld.gov.au**

North Burnett Regional Council
**www.northburnett.qld.gov.au**

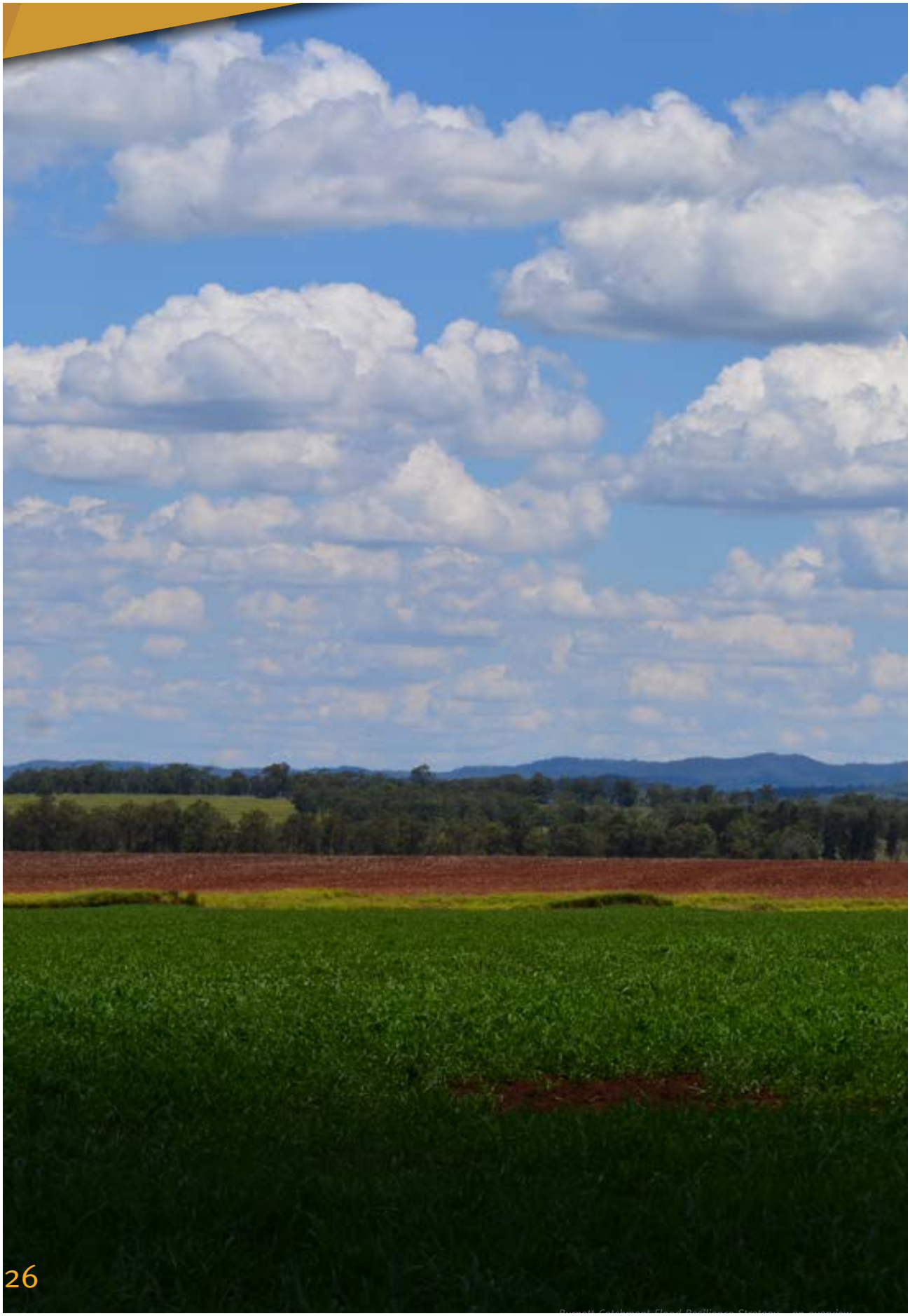
South Burnett Regional Council
**www.southburnett.qld.gov.au**

Cherbourg Aboriginal Shire Council
**www.cherbourg.qld.gov.au**

Queensland Reconstruction Authority
**www.qra.qld.gov.au**

## Queenslanders are disaster resilient when...




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Integrated catchment planning
a new take on the traditional process of flood risk management
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OFFICIAL

| Action ID | Line of Resilience | Resilience Project Funding Status | Resilience Project Funding Source | Resilience Project Title | Resilience Project Description/Scope | Resilience Project Outcomes | Current Project Phase | Project Focus Area | Hazard Addressed | Primary QSDR Objective linkage | Estimated Project Cost | Priority | Project Responsibility | Project Origin | Accountable Officer (Internal) | Additional Information |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unique Identifier | Select from the five lines, Must be a single selection. | Current status of the project. | Funding source of project if funded. | Title of project | High level description and outline of the proposed project and scope (1-2 paragraphs for each project) | List potential resilience outcomes and benefits if the project was supported | Select from the options, Must be a single selection. | Select most relevant option. Must be a single selection. | Select from the options, Must be a single selection - if project would address multiple hazards, select hazard that most closely aligns with the project. | Select from the five lines, Must be a single selection. | Round Cost estimate - whole number only (inclusive of project management and contingency costs) | Number Council priorities from 1 (highest) onwards | Responsibility for delivering the project | How was this project orginally identified? | Name and position of the internal project owner should the project be funded. | Free text field to add any additional comments or context for each line item as required. |
| | Roads and Transport | Proposed | | Improve regional Culverts and floodways | Improve/reconstruct floodways and culverts, enhance aprochesto increase resiliance against flood impacts. | Increased resilience to avoid closures and repetitive damage costs | Delivery Ready | Culverts | Severe thunderstorm | 3 - We seek new opportunities to reduce disaster risk | $ 4,000,000 | 1 | Council | Council-identified Priority | Kevin Searle | |
| | Human and Social | Proposed | | Community Messaging Boards | Misinformation and communication in community during disasters. Advertising community events, shows, reminders for community engagement activites | Strengtethening community engagement | Pre-concept/Feasibility Study | Community Members | | 2 - We work together to better manage disaster risk | $ 500,000 | 2 | Council | Council-identified Priority | Rebecca Bayntun | |
| | Environment | Proposed | | Fire Management and Weed Mapping Project | Identify locations at risk and ensure active fire management plans and seasonal preparedness are in place, while also developing maintenance plans for each location and mapping and recording weed infestations across floodplain catchments. | High risk areas have active fire management plans. Prioiritised high fuel load areas for prioirty maintenance programs i.e firebreak slashing and grading, clearing of fire trails. Implementation of fuel reduction burns to maintain community safety. Mapping information will assist in design and implmenetation of a floodplain weed control program. Reduce risk to industry and downstream landholders. | Design | Other - Environment | Bushfire | 2 - We work together to better manage disaster risk | $ 30,000 | 3 | Council | Other | Leanne Petersen | |
| | Roads and Transport | Proposed | | Edenvale South Road | Access along the road is blocked during flood events due to the floodway. The proposed works include raising and upgrading the existing culvert and improving the approach sections. | Maintain emergency service access to Kingaroy Airport by reducing road closures and improving resilience and recurring repair costs. | Delivery Ready | Culverts | Severe thunderstorm | 3 - We seek new opportunities to reduce disaster risk | $ 550,000 | 4 | Council | Council-identified Priority | Kevin Searle | |
| | Human and Social | Proposed | | Recovery Officer | Particularly smaller/regional LGAs don't have full time resources to carry out disaster management functions (prepareness, prevention, resilience and recovery activities. These positions are filled from event funding (2-3 year programs). We are seeking a 3 year Recovery Officer to assist with community liaison events, delivery of grant funded programs, coordinating recovery and sub groups, coordinating local community support sector. | Increased Disater Management and Rescoures and personnel | Delivery Ready | Other - Human and Social | | 4 - We continually improve how we prepare for, respond to and recover from disasters | $ 450,000 | 5 | Council | Original LRAP | Mark Pitt | |
| | Environment | Proposed | | Weed Seed Spread | Design and construct a weed wash down facility | Reduce weed seed spread | Pre-concept/Feasibility Study | Other - Environment | Biosecurity emergency | 1 - We understand the potential disaster risks we face | $ 80,000 | 6 | Council | Other | Leanne Petersen | |

# 15 QUESTIONS ON NOTICE

## 15.1 QUESTION ON NOTICE - UNDISCLOSED AMOUNT - CONTRACTUAL ARRANGEMENTS

**File Number:** **15.04.2026**

**Author:** **General Manager Finance & Liveability**

**Authoriser:** **Chief Executive Officer**

The following question on notice was received from Councillor Danita Potter.

### Question

What is the reason for the undisclosed amount listed in the contractural arrangements entered into over $200,000

### Response

*The below line item from the quarterly contracts over $200,000 report had an amount which stated 'undisclosed'.*

| | | | |
|---|---|---|---|
| 19-November-2025 | RPQ SPRAY SEAL PTY LTD | Undisclosed | SBRC 2425_21 Preferred Supplier Road Maintenance and Re-Seal Works |

*This contract relates to a preferred supplier arrangement which came to Council in November 2025 with RPQ Spray Seal Pty Ltd being approved as a preferred supplier for a 24 month period. As a preferred supplier arrangement isn't for a specific value, the contract has been included in the listing as the total value will end up being over the $200,000. However amount has been provided specifically in the list as it will depend on the work contracted out during the 2 year period.*

### RECOMMENDATION

That the response to the question regarding the undisclosed amount on the contractual arrangements report raised by Councillor Danita Potter be received and noted.

### ATTACHMENTS

**Nil**

## 15.2 QUESTION ON NOTICE - WASHDOWN BAYS

**File Number:** **15.04.2026**

**Author:** **General Manager Finance & Liveability**

**Authoriser:** **Chief Executive Officer**

The following question on notice was received from Councillor Heath Sander.

### Question

Is all of the material pumped out of the Kingaroy Depot wash down bay classed as contaminated? And do we have the contractor pump out all of the wash down bay material from the other depots at the same time?

### Response

*The material pumped out of the Kingaroy Depot wash down bay is all classed as contaminated. The Kingaroy Depot workshop design has the material ending up in the general wash down bay along with any general waste from machinery washed at the site which is why it is all classed as contaminated waste.*

*Nanango workshop waste goes to the new wash bay holding tank along with the emulsion and is treated through a series of filters to remove oily water. This tank should be pumped/cleaned out every 3-5 years and can be more expensive due to the emulsion factor.*

*Generally, we will have a contractor come and pump out each different site when required/are getting full. This means we don't usually have contractors come and pump out more than one site at a time.*

### RECOMMENDATION

That the response to the question regarding washdown bays raised by Councillor Heath Sander be received and noted.

### ATTACHMENTS

**Nil**

## 15.3 MURGON FREE CAMP

**File Number:** **15-04-2026**

**Author:** **Coordinator Infrastructure Services**

**Authoriser:** **Chief Executive Officer**

The following question on notice was received from Councillor Heath Sander.

### Question

What was the outcome of the legal review for the Deborah Ross deputation regarding Murgon free camp?

### Response

*The final legal review has been completed on signs and rules. Signs are undergoing final amendment and will be ordered, and rules will be updated online.*

### RECOMMENDATION

That the response to the question regarding the legal review for the Deborah Ross deputation regarding Murgon free camp raised by Councillor Heath Sander be received and noted.

### ATTACHMENTS

**Nil**

## 16 INFORMATION SECTION

Nil

# 17 CONFIDENTIAL SECTION

**OFFICER'S RECOMMENDATION**

That Council considers the confidential report(s) listed below in a meeting closed to the public in accordance with Section 254J of the *Local Government Regulation 2012*:

**17.1 South Burnett Community Hospital Foundation Limited Board Meeting Minutes - 3 February 2026**

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

**17.2 Wakka Wakka People #3 (Part C) and South Burnett Regional Council - Draft ILUA**

This matter is considered to be confidential under Section 254J - e and i of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with legal advice obtained by the local government or legal proceedings involving the local government including, for example, legal proceedings that may be taken by or against the local government and a matter the local government is required to keep confidential under a law of, or formal arrangement with, the Commonwealth or a State..

**17.3 BIEDO Partnership Agreement**

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

**17.4 Landfill threshold and diversion options**

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

**17.5 Request for waiver of fees - Generation Funerals**

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

**17.6 Sale of Land for Overdue Rates and Charges Report April 2026**

This matter is considered to be confidential under Section 254J - i of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with a matter the local government is required to keep confidential under a law of, or formal arrangement with, the Commonwealth or a State..

**17.7 Undetected Water Leak - Assessment 12627-00000-000**

This matter is considered to be confidential under Section 254J - d of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with rating concessions.

### 17.8 Transfer of land Jellicoe Street, Proston

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

### 17.9 Trustee Permit to Occupy for Grazing Purposes - Lot 313 on CP FY509

This matter is considered to be confidential under Section 254J - g of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government.

### 17.10 Question on Notice - Length of Time Contractor Has Been in Place

This matter is considered to be confidential under Section 254J - b of the Local Government Regulation, and the Council is satisfied that discussion of this matter in an open meeting would, on balance, be contrary to the public interest as it deals with industrial matters affecting employees.

## 18 CLOSURE OF MEETING