

Pro-Pine Sawmill - 256 Old Esk Road | Taromeo

Stormwater Management Plan

Date 26 May 2025

Project Number 24E-0202

REPORT CONTROL SHEET

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Disclaimer:

This report is a professional opinion based on the information available at the time of writing. It is not intended as a quote, guarantee or warranty and does not cover any latent defects.

This report will comment on the Civil infrastructure to the project and may outline probable costs but the extent of the commission of RMA does not extend to detailed cost feasibility, as such the costs should not be relied on for financing arrangements.

The conclusions in this report should not be read in isolation. We recommend that its contents be reviewed in person with the author so that the assumptions and available information can be discussed in detail to enable the reader to make their own risk assessment in conjunction with information from other sources.

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1. Introduction

1.1 General

RMA Engineers Pty Ltd has been commissioned by Pro Pine Pty Ltd (the client) to prepare a Stormwater Management Plan in accordance with the Site Based Management Plan to support a development application. The site is located on Old Esk Road, Taromeo, and is formally referred to as Lots 228 and 229 on SP136942, within the South Burnett Regional Council (SBRC) local government area.

For stormwater overland flow modelling:

- Overland flow modelling of the existing 1% AEP flood extent.

For stormwater quantity, the report will calculate pre- and post-developed stormwater discharge rates, including:

- calculation of pre-development median peak discharge rates for all standard Annual Exceedance Probabilities (AEP's) up to and including 1% at the nominated assessment locations
- calculation of post-development median peak discharge rates for all standard AEP's up to and including 1% at the nominated assessment location

For stormwater quality, the report will:

- Identify the location of stormwater discharge for the site
- Calculate the sediment basin sizing for the 10% AEP 24 hour storm event.

1.2 Basis of report

This report has been compiled based on:

- Discussions between RMA Engineers Pty Ltd and the Client
- Survey by DSQ Land Surveyors – Received 02/04/2025
- LIDAR extracted from Elevation and Depth – Foundation Spatial Data
- Australian Rainfall & Runoff (ARR), 2016 – Accessed 15 February 2024
- Bureau of Meteorology – Design Rainfall Data System (2016) – Accessed 15 February 2024
- Queensland Urban Drainage Manual (QUDM), Volume 1, Fourth Edition 2016

This report has been prepared specifically for the aforementioned client, site, and project. It has been written solely for the purpose of providing engineering advice on the above issues for the Council and the Client for this development site. Please note that this report has been compiled based on the information that is current at the time of report printing, and that the recommendations supplied within this report are based solely on the above.

Any existing drainage issues upstream or downstream from the analysed area remain the responsibility of the Council to investigate and maintain.

2. Site Characteristics

2.1 Location and description

The site is located on Old Esk Road, Taromeo, and is formally referred to as Lots 228 and 229 on SP136942, within the South Burnett Regional Council (SBRC) local government area. The site is bounded by Old Esk Road to the west and Bernakin State Forest/National Park to the east.

The site is zoned as rural, as per SBRC mapping, and is surrounded by environmental management and conservation zoning as well as rural residential land use.

The site is illustrated on the locality plan in **Figure 2-1** below.

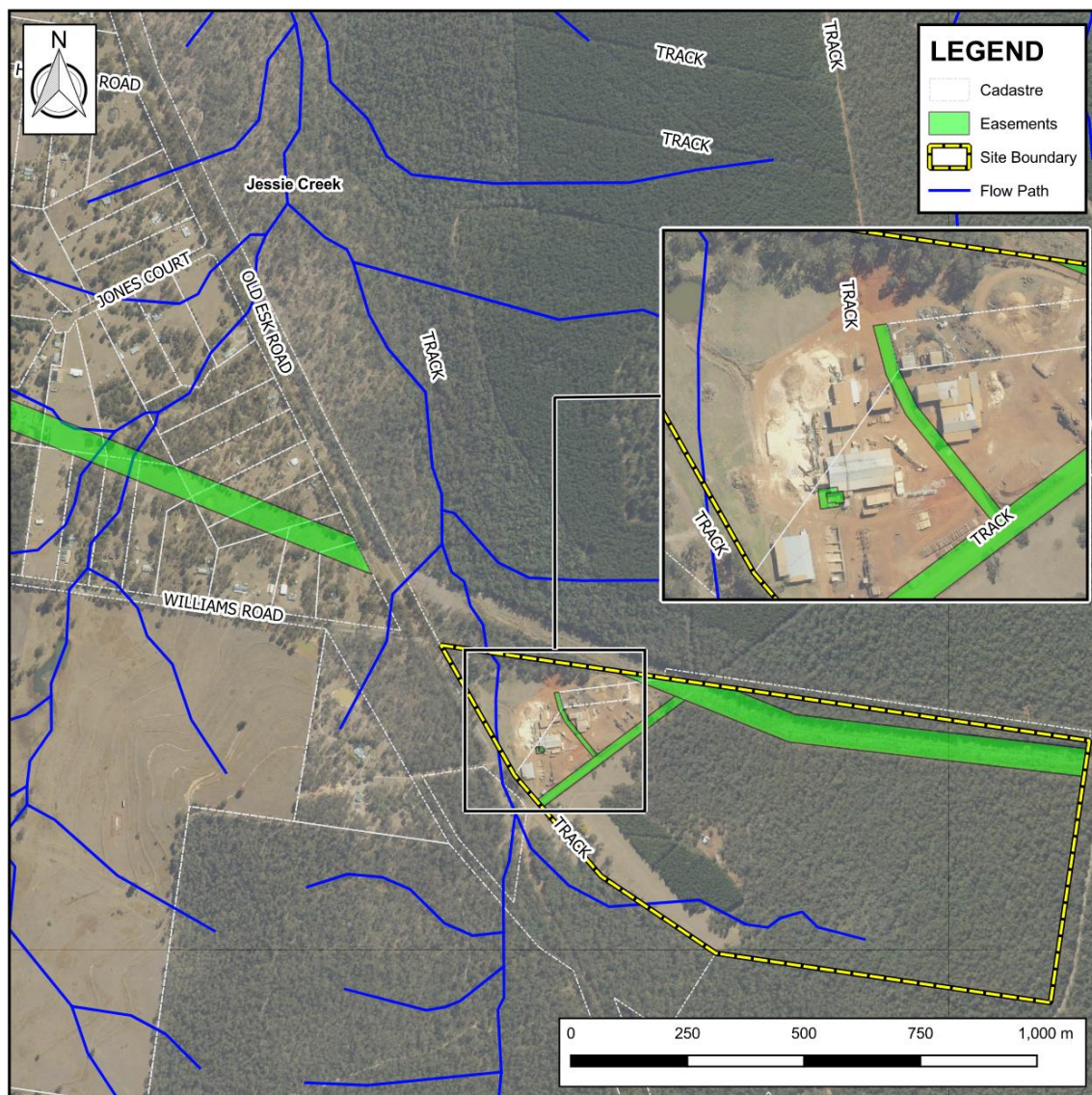


Figure 2-1: Locality plan

2.2 Topography and Assessment Location

2.2.1 General

Figure 2-3 illustrates the existing topography of the site. 1-second LiDAR data was available and was used to assess the external terrain, while a detailed site survey was used for internal analysis. The terrain generally slopes from approximately 476 m AHD in the upper regions to 230 m AHD at the lower extents, as shown in **Figure 2-3** below.

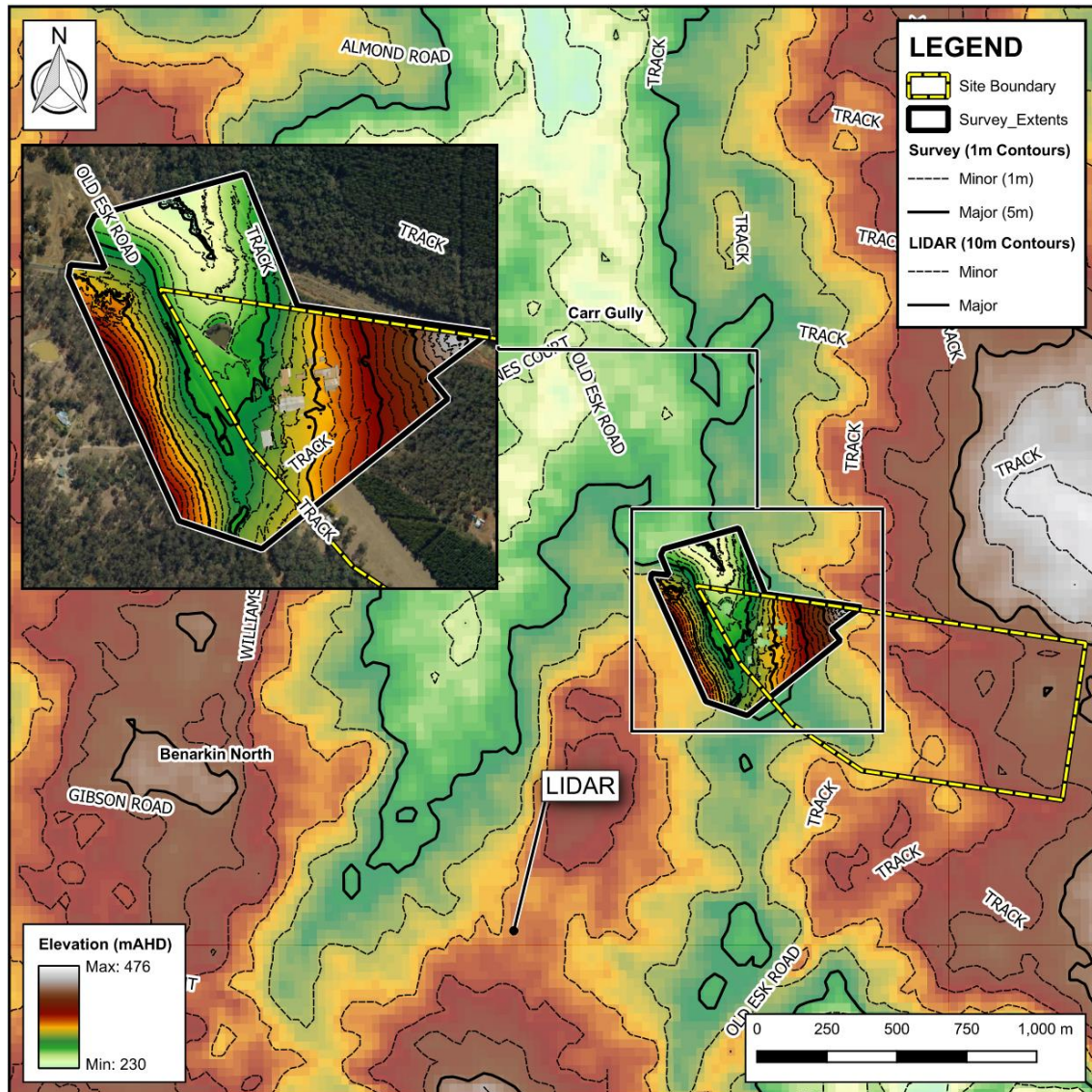


Figure 2-3: Site topography

2.2.2 Assessment Location

Flows are assessed roughly 180m downstream of the development site as shown in **Figure 2-1** below.

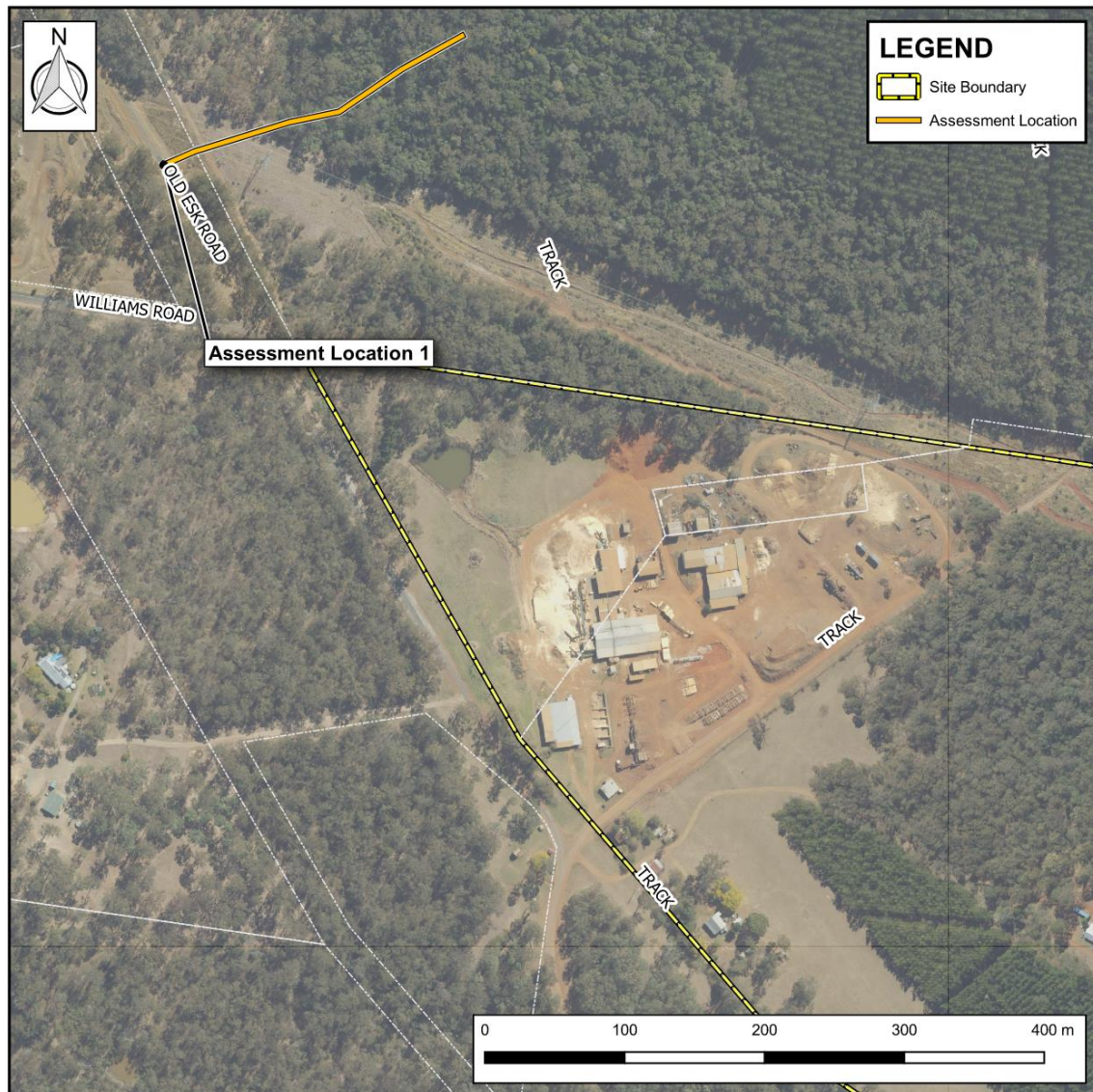


Figure 2-1: Assessment Location

Refer to **Appendix C** for pre- and post-development catchment plans.

3. Proposed development

3.1 Land Subject to this Application

The proposed development layout is shown in **Figure 3-1** and is included in **Appendix A**. Key areas of interest include:

- Two pine milling workshops
- Drying workshop
- Storage shed
- Storage for saw dust, pine chips, scrap timber
- Proposed channel upstream to redirect 1% AEP flows
- Sediment basin

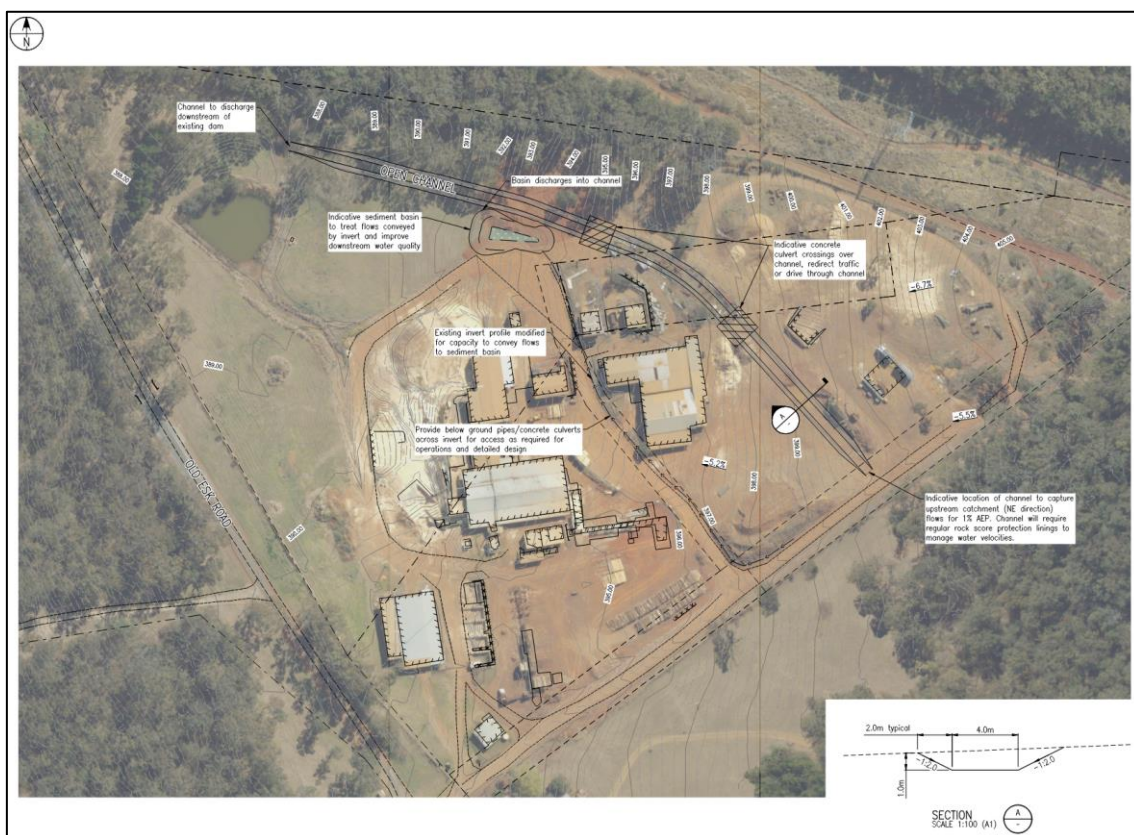


Figure 3-1: Extent of site area subject to the proposal

4. Overland Flow Analysis

4.1 General

The existing overland flow analysis has been assessed using a Two-dimensional Unsteady Flow (TUFLOW) hydraulic model. TUFLOW is specifically orientated towards establishing flow and inundation patterns in areas where the flow behaviour is essentially 2D in nature and would not be suitably represented using a 1D model.

A node inflow TUFLOW model was adopted to identify the existing 1% AEP flood extents near the operation site.

4.2 Hydraulic Model

4.2.1 Model extent and terrain

The following figure below shows the extent of the hydraulic model. The model extent adopted the survey surface data for the base surface terrain with a grid cell size of 2m.

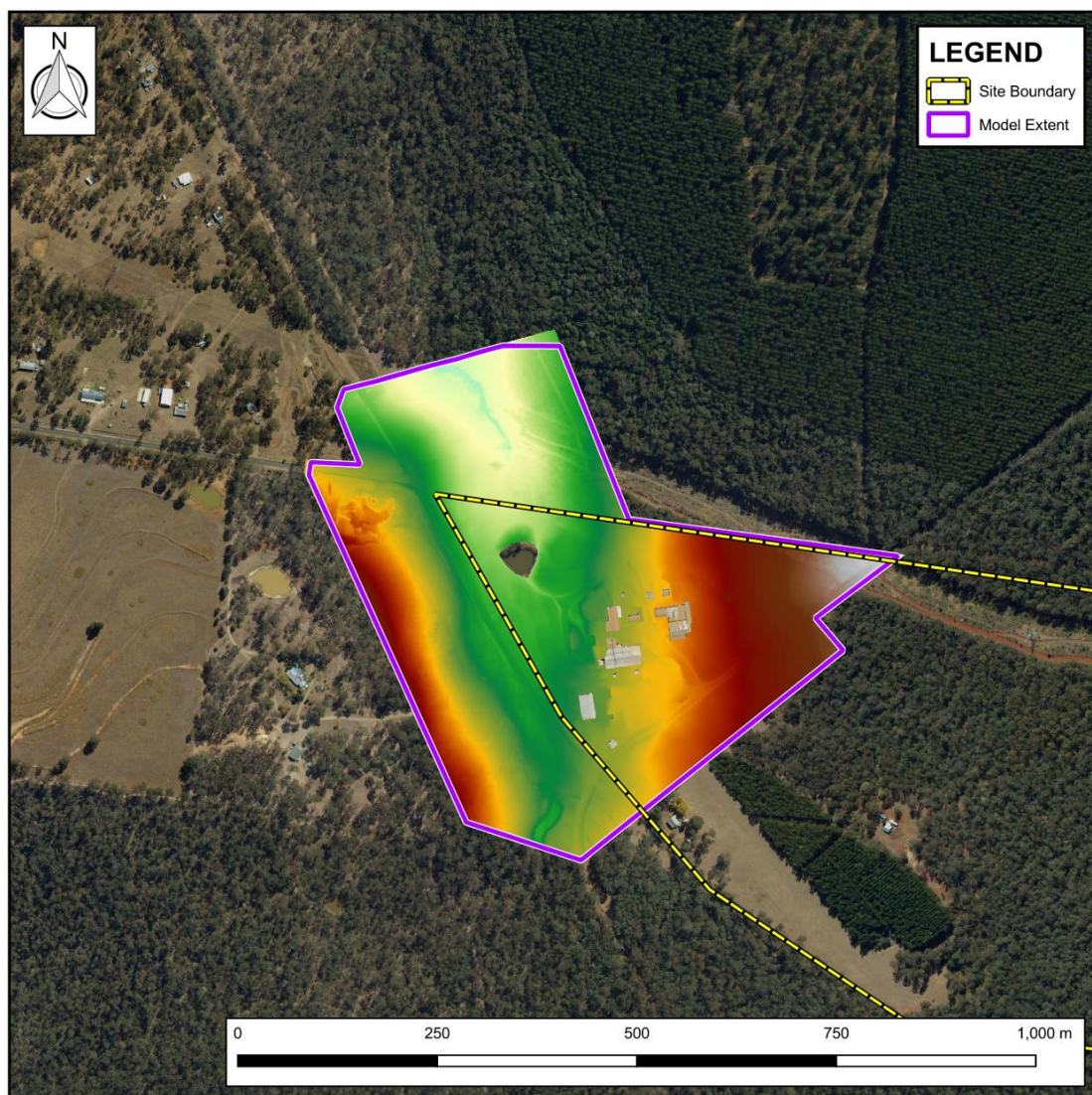


Figure 4-1: Hydraulic model extent

4.2.2 Hydrological model

The pre-developed hydrological analysis outlined in **Section 5** of this report was adopted as inflows to the TUFLOW model.

Standard storm durations ranging from 15 minutes up to, and including, 12 hours were assessed in the hydraulic model.

4.2.3 Model inflow locations and boundary conditions

Hydrographs generated in DRAINS were incorporated into the hydraulic model at the locations shown in the following figure. For the 2d_bc boundaries, an upstream inflow condition was applied to represent runoff from the upstream catchment, while a downstream boundary condition was included to allow water to exit the model domain appropriately.

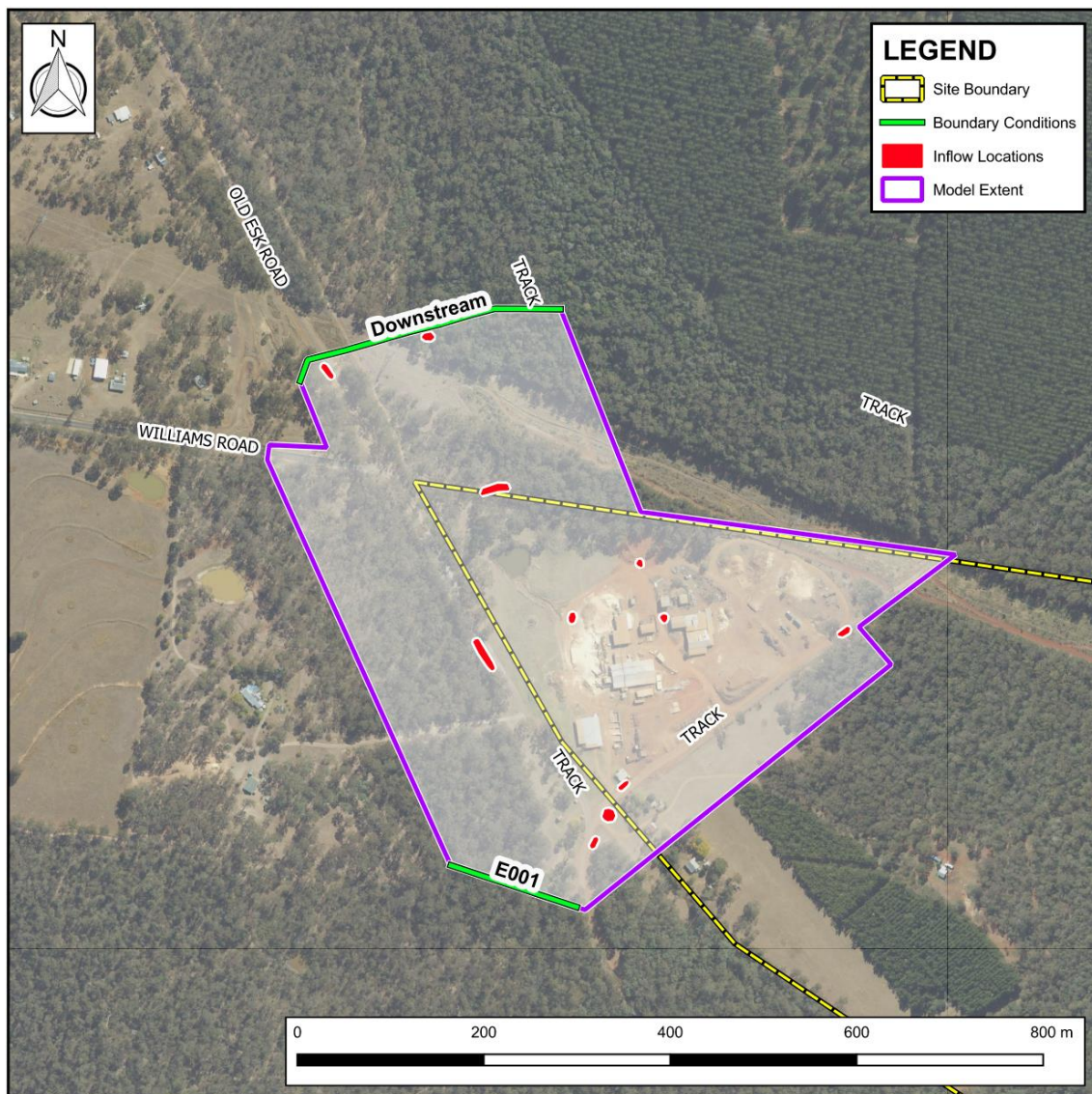


Figure 4-2: Hydrograph inflow locations

4.2.4 Materials/Land use

The surface roughness adopted for model is shown **Figure 4-3** below.

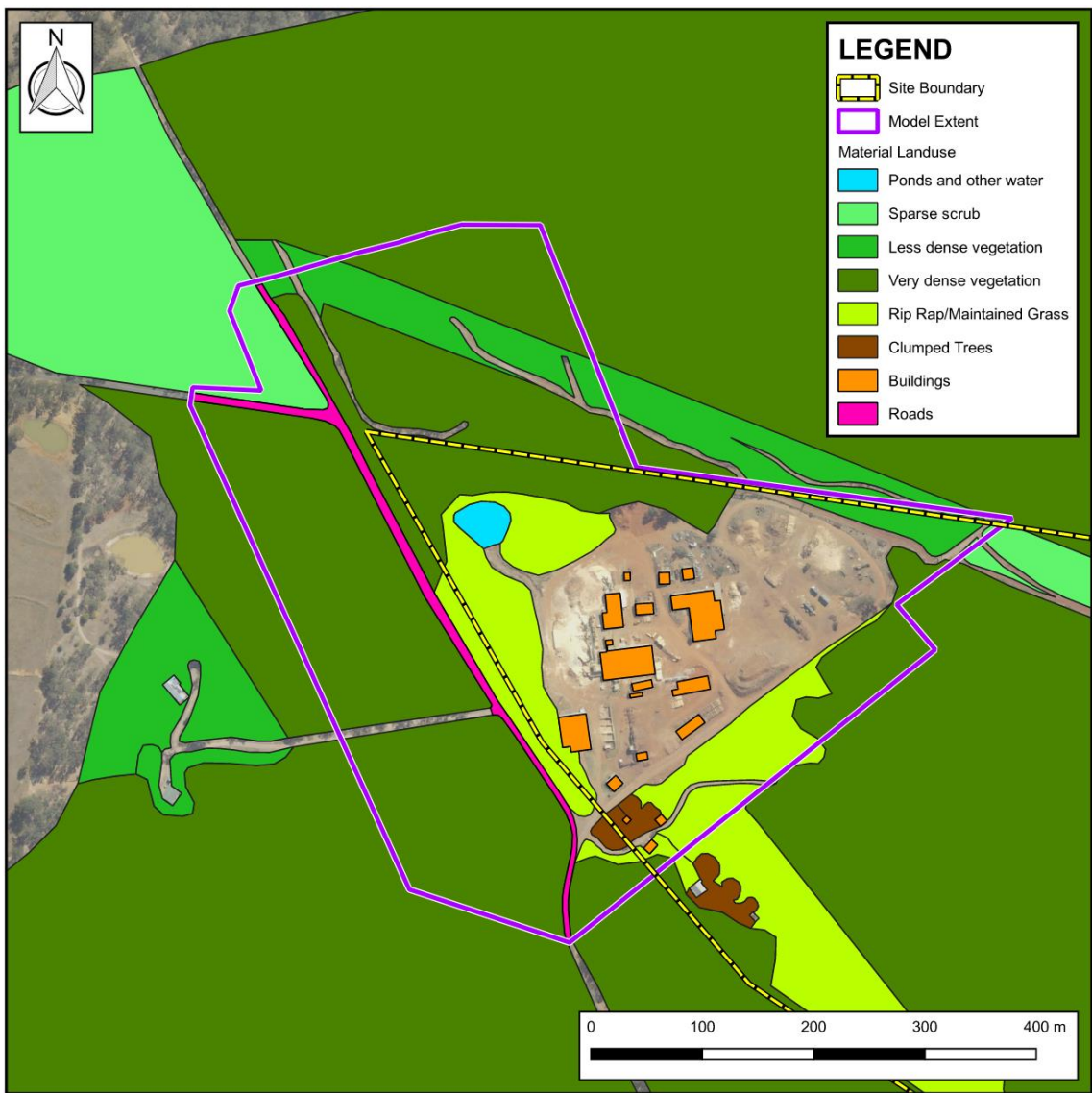


Figure 4-3: Land Use

4.2.5 Existing Culverts

Existing stormwater infrastructure has been provided in the survey. **Figure 4-4** below indicates the location and **Table 4-1** details for the existing culverts dimensions.

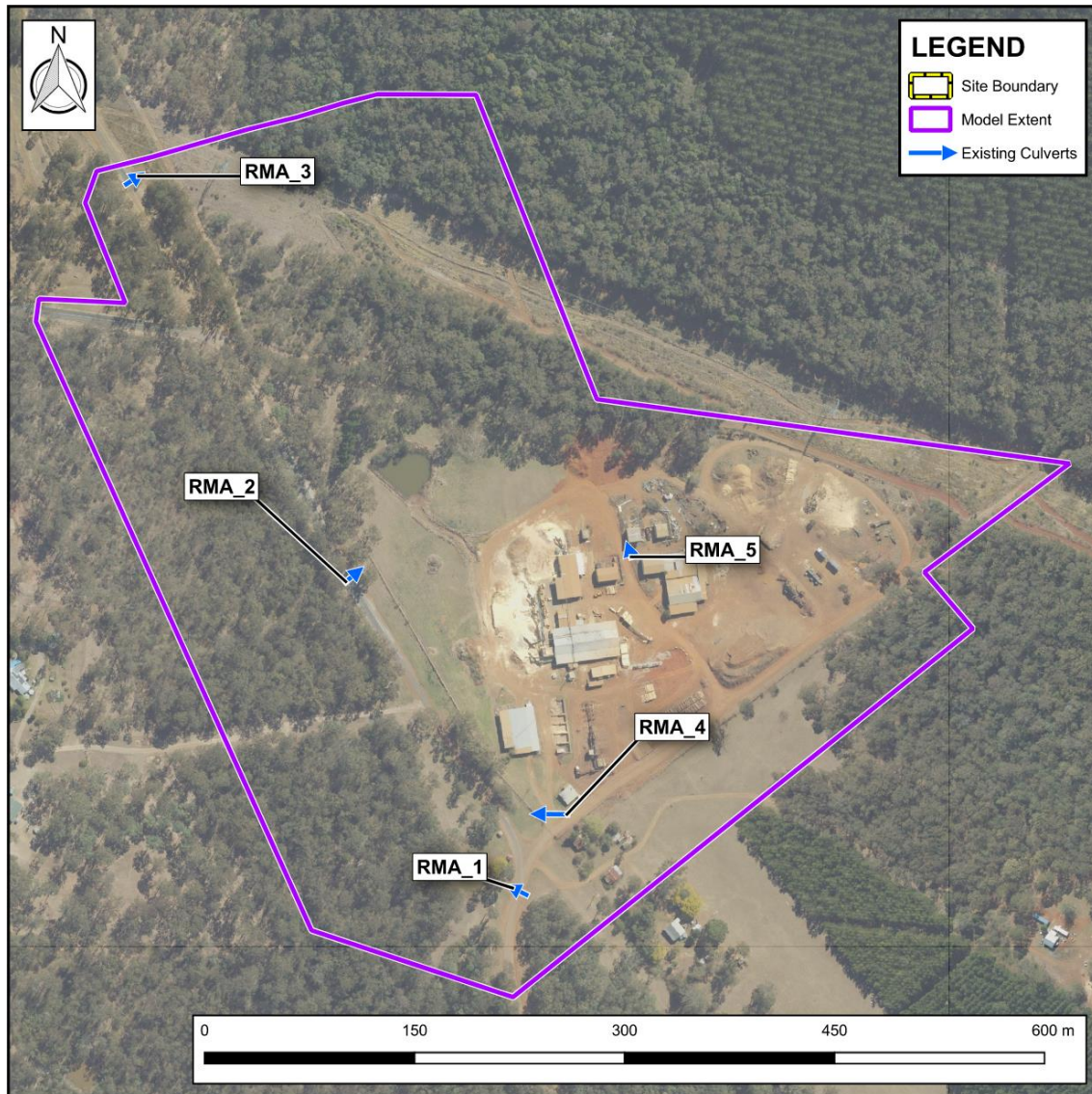


Figure 4-4: Culvert locations

Table 4-1: Existing Culvert Structures

Culvert ID	Length (m)	US Invert (mAHD)	DS Invert (mAHD)	Dimension (mm)
RMA_1	9.71	391.49	391.39	450 RCP
RMA_2	9.78	389.22	389.04	6/450 RCP
RMA_3	9.77	387.70	387.41	3/450 RCP
RMA_4	20.90	392.53	392.04	2/1200x450 RCBC
RMA_5	7.24	393.93	393.89	350 RCP

4.2.6 Initial Water Level

An initial water level (IWL) was applied in two locations as shown in **Figure 4-5** below.

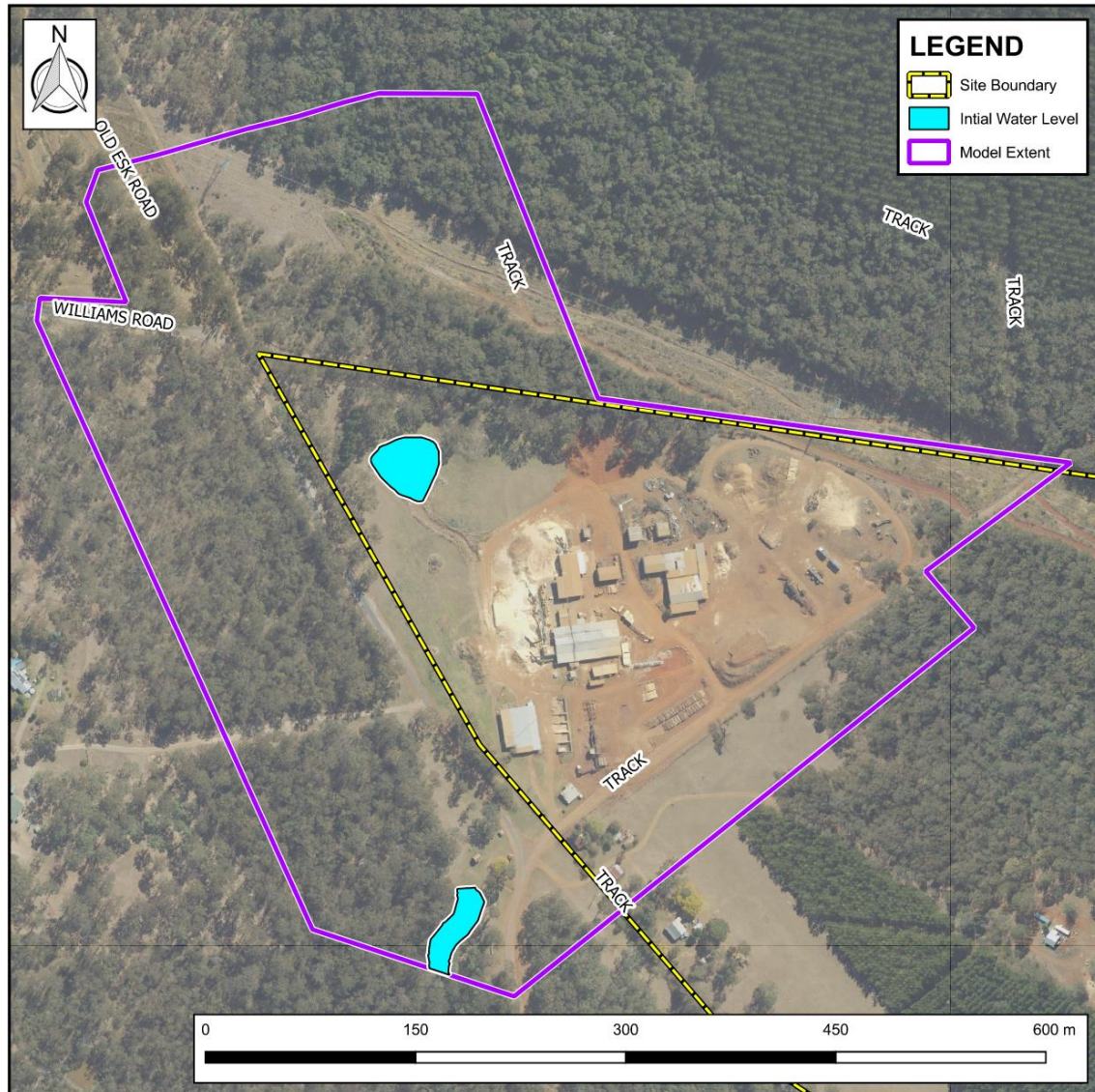


Figure 4-5: Initial Water Level

4.3 TUFLOW Modelling Results

4.3.1 General

Mapped results of the existing 1% AEP flood depth (m), velocity (m/s) and DV (m^2/s) are attached in **Appendix D**.

4.3.2 1% AEP Flood Extent Depth

The following figure shows the existing 1% AEP flood event depth extent within the vicinity of the site.

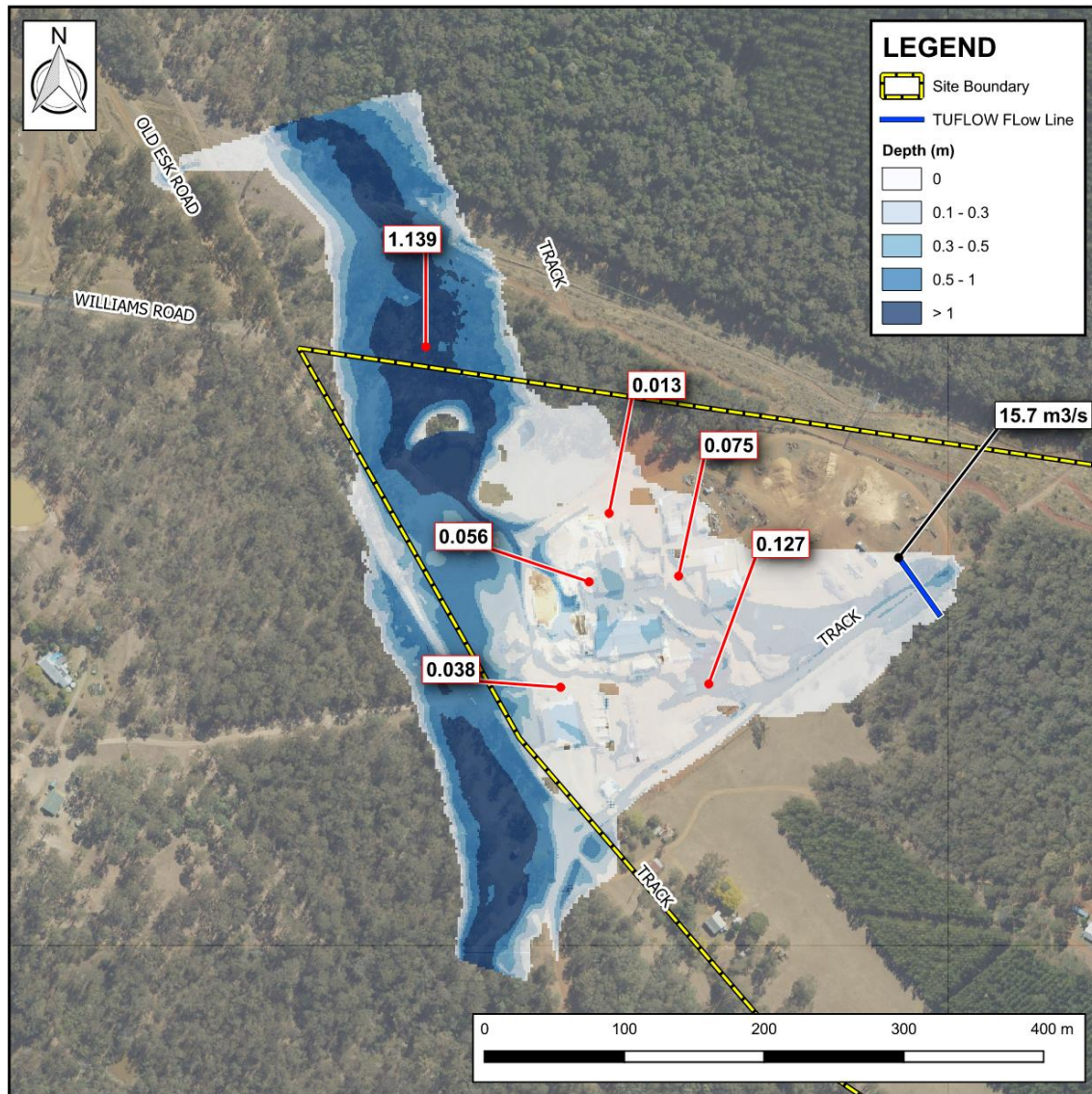


Figure 4-6: 1% AEP Pre-developed depth

The 1% AEP existing flood depth extent indicates that flows discharge through the site before continuing downstream to Jessie Creek. The site receives runoff from both an upstream catchment and a local catchment within the immediate area. Flood depths are relatively shallow as indicated in **Figure 4-6** and are not significantly influenced by Jessie Creek flood levels.

Flow lines were incorporated into the TUFLOW model to better understand flow paths and the volume of water flowing through the area. As shown in **Figure 4-6** above, generally 15.7 m³/s of flow is discharged onto the site under the modelled conditions.

5. Stormwater quantity management

5.1 General

The overall stormwater management strategy is as follows:

- Calculate the flows at the assessment location in the pre- and post-developed scenarios and show that the site does not result in an actionable nuisance with quantifiable loss.

Analysis has been based on comparing pre-development median peak flow rates to post-development median peak flow rates at the assessment locations outlined in **Section 2.2**.

Refer to **Appendix C** for pre-development and post-development stormwater catchment plans.

5.2 Stormwater quantity assessment

The QUDM lawful point of discharge test was used to assess the potential impact of the development on each discharge location.

The following figure shows the lawful point of discharge criteria as per QUDM 2016.

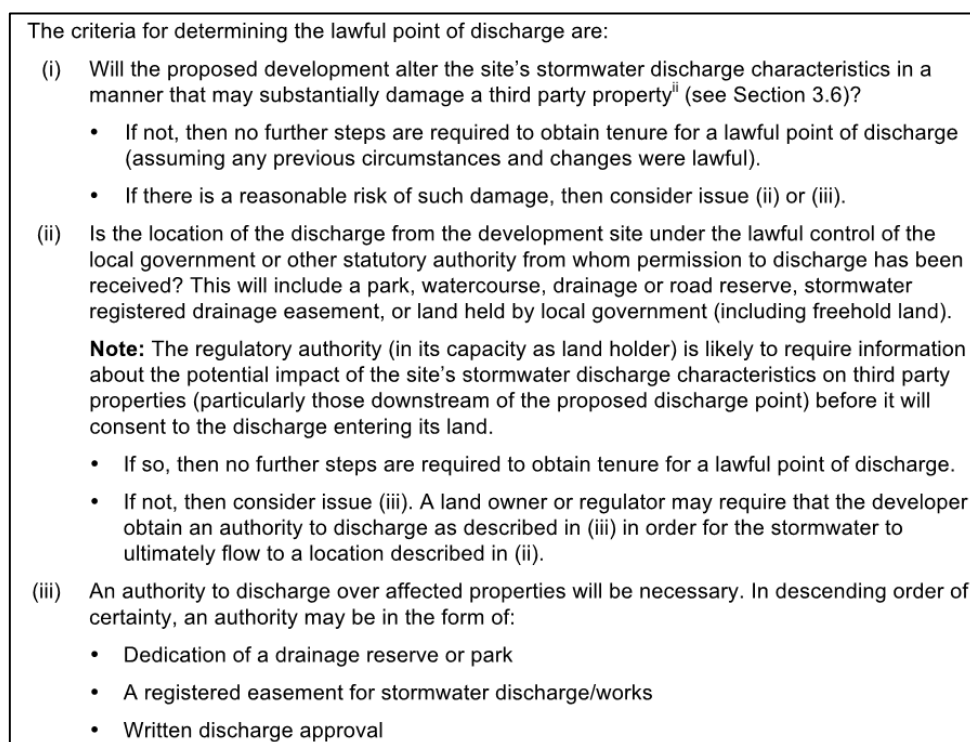


Figure 5-1: Lawful point of discharge test (QUDM 2016)

The QUDM lawful point of discharge test outlines in item (i) if the proposed development does not alter the site's stormwater discharge characteristics in a manner that does not **substantially** damage a third-party property, no further steps are required.

5.3 Hydrological modelling

5.3.1 General

A hydrological analysis has been undertaken using DRAINS. DRAINS is a modelling software package developed for the design and analysis of urban stormwater drainage systems. It utilises either the “Extended Rational Method” or the “Initial Loss / Continuing Loss” hydrology loss models to convert Australian Rainfall and Runoff temporal patterns and design rainfall data into runoff hydrographs.

The hydrological model used for this analysis is the Initial Loss / Continuing Loss model.

Rainfall is modelled for the catchment in equal time intervals under each storm event and the subsequent runoff is routed through a drainage system.

5.3.2 BOM and ARR Datahub info

The average centroid of the contributing catchment’s latitude and longitude were used as inputs to the Bureau of Meteorology and AR&R datahub websites to extract the relevant rainfall parameters adopted within the hydrological models. This data is summarised in **Appendix B**.

5.3.3 Initial loss and continuing loss

Key hydrological parameters adopted within the model are identified within **Table 5-1**.

Table 5-1: Hydrological parameters

Adopted Parameters	
Pervious Area Initial Loss (mm)	0
Pervious Area Continuing Loss (mm/hr)	0
Impervious Area Initial Loss (mm)	22
Impervious Area Continuing Loss (mm/hr)	2.9
Temporal Pattern Zone	East Coast North

5.3.4 Temporal Patterns

ARR 2016 temporal patterns have been adopted for the analysis.

The temporal patterns adopted within the hydrologic analysis were taken from Chapter 5 of Book 2 of ARR 2019 (extracted from ARR datahub)

The site is located in the Central Slopes region.

5.3.5 Calibration

Peak flow rates calculated with DRAINS for the 1% AEP were compared to peak flows in the TUFLOW model at the proposed flow comparison location (refer to **Figure 5-2** below). These flows were used to validate the DRAINS model.

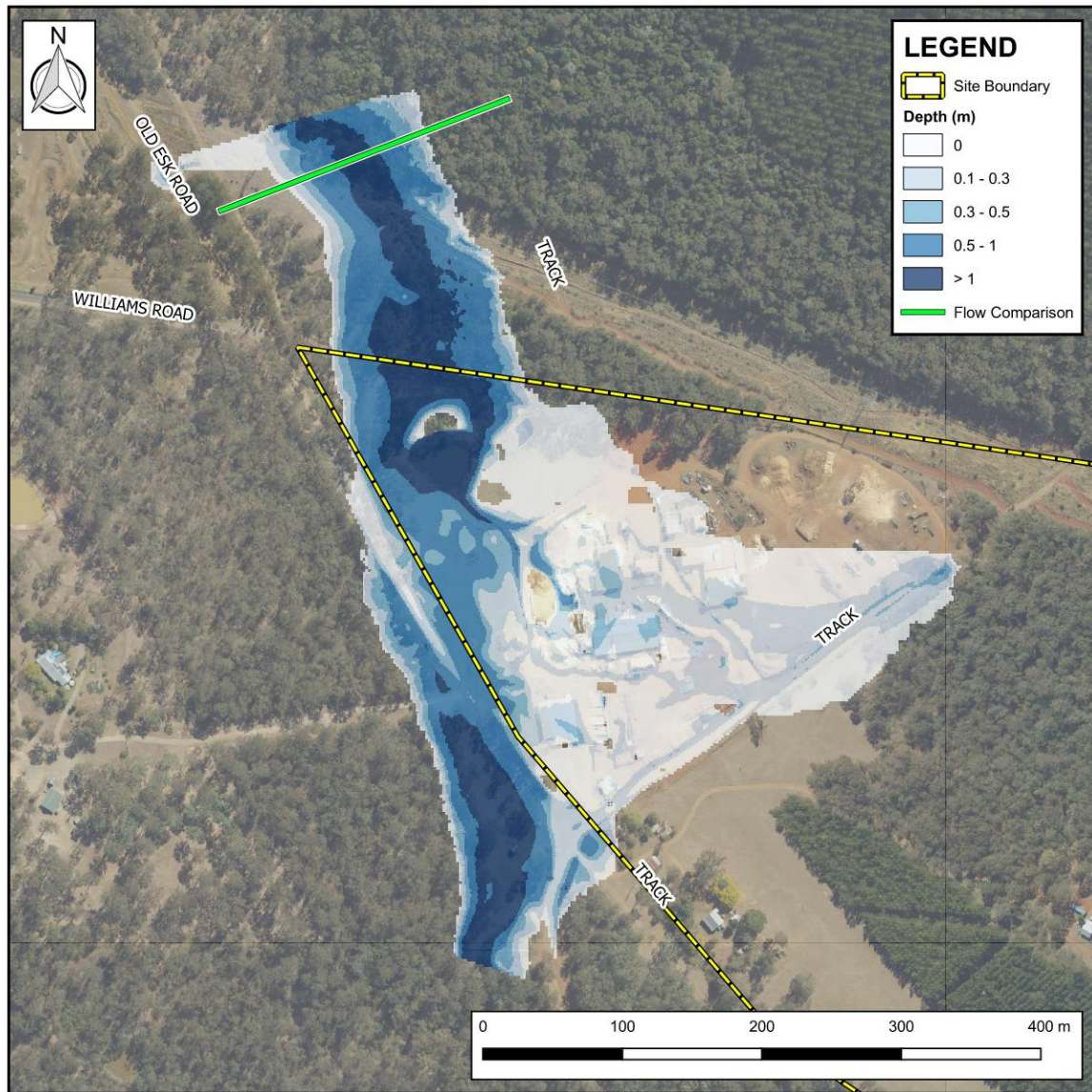


Figure 5-2:Flow Comparison Location

DRAINS 1% AEP peak flows at the comparison location (refer to **Figure 5-1**) show the hydrograph generally matches the TUFLOW model. Refer to **Figure 5-3** and **Table 5-2** below.

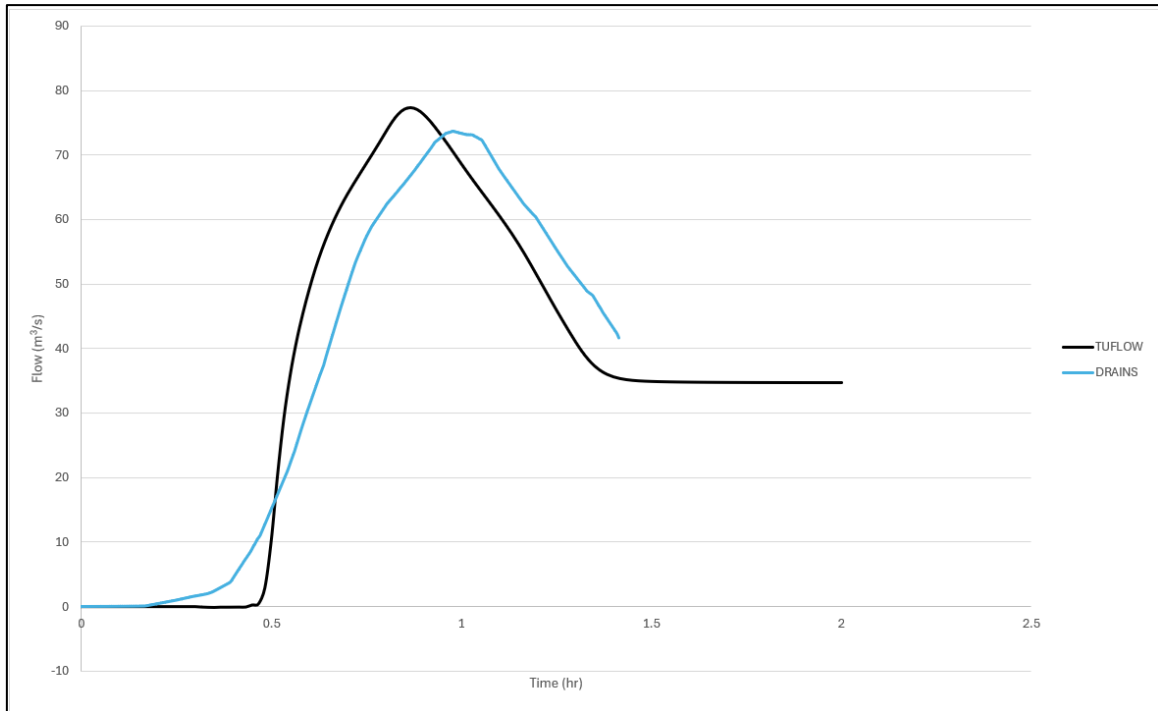


Figure 5-3: TUFLOW vs DRAINS 1% AEP Hydrograph Comparison

Table 5-2: TUFLOW vs DRAIN 1% AEP Median Peak Flow Comparison

Storm Event	TUFLOW		DRAINS		Difference %
	45min	TP 3	45min	TP 3	
1% AEP	77.38		73.70		4.8

The comparison indicates the 1% AEP peak flows calculated with DRAINS were generally similar to the TUFLOW hydraulic calculations, therefore the DRAINS model is considered fit for purpose.

5.3.6 Model Validation

The Rational Method peak flow rates were then compared to peak flow rates calculated using the DRAINS model.

Whilst different hydrologic analysis methods result can result in different peak flow rates, the comparison indicated the peak flows calculated by both methods were generally similar. See **Appendix F**.

From a secondary check, the runoff calculated using the DRAINS model is therefore considered fit for purpose.

5.4 Catchments

5.4.1 Pre-development catchment and modelling details

Fraction impervious values have been selected based on the existing site and in accordance with Table 4.5.1 of QUDM 2016.

Times of concentration have been calculated using the methodologies outlined in Section 4.6 of QUDM 2016.

The table below summarises the pre-development catchment parameters used within the DRAINS model.

Table 5-3: Pre-development catchment details

Catchment ID	Time of Concentration (minutes)	Catchment Area (ha)	Percent Impervious (%)
E001	52.5	213.9	0.0
E002	38.1	89.6	0.0
E003	23.3	47.2	0.0
E004	12.0	3.9	0.0
E005	17.0	1.1	20.0
E006	17.0	1.4	40.0
E007	16.0	2.3	0.0
E008	14.0	10.9	5.0
E009	20.0	4.7	5.0
E010	21.0	10.4	0.0
E011	7.5	1.7	5.0
E012	5.0	0.2	0.0

Refer to **Appendix C** for the pre-development catchment plan.

The DRAINS model schematic for the pre-developed scenario is presented in the figure below.

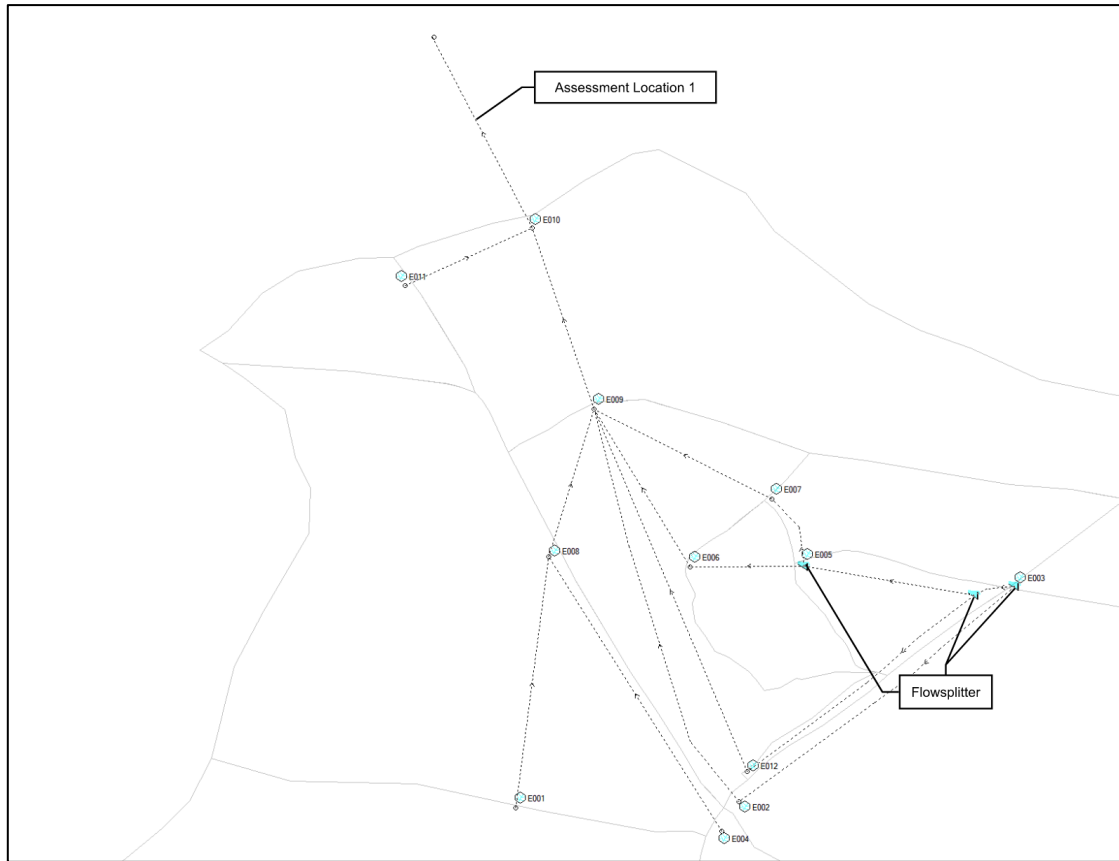


Figure 5-4: Pre-developed DRAINS model schematic

5.4.2 Post-development catchments

Fraction impervious values have been selected based on the proposed nature of the development and in accordance with Table 5.4.1 of QUDM 2016.

Times of concentration have been calculated using the methodologies outlined in Section 4.6 of QUDM 2016.

A post-development catchment plan is provided in **Appendix C**.

The following table outlines the post-development catchment characteristics adopted in DRAINS.

Table 5-4: Post-development catchment details

Catchment ID	Time of Concentration (minutes)	Catchment Area (ha)	Percent Impervious (%)
D001	52.5	213.85	0
D002	38.1	89.598	0
D003	23.3	47.226	0
D004	12	3.934	0
D005	17	1.119	20
D006	17	1.415	40
D007	16	2.296	0
D008	14	10.914	5
D009	20	4.7	5
D010	21	10.39	0
D011	7.5	1.684	5
D012	5	0.16	0

The DRAINS model schematic for the post-developed scenario is presented in the following figure.

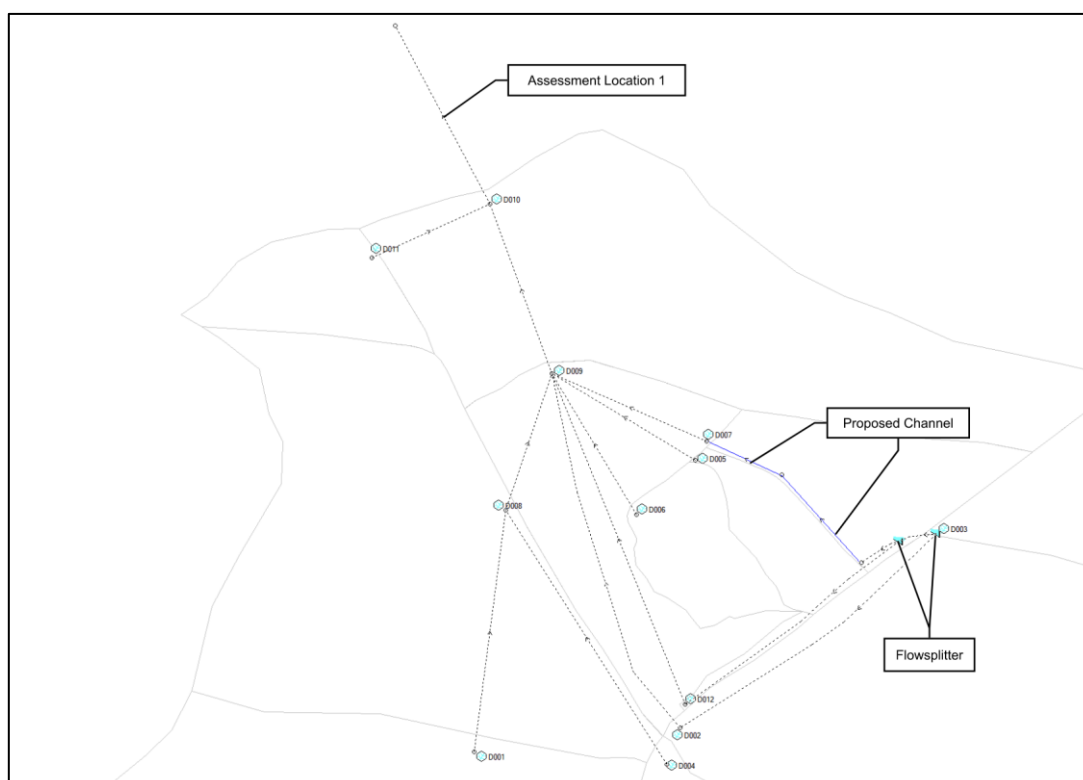


Figure 5-5: Post-developed DRAINS model schematic

The proposed channel that will capture and redirect upstream catchment flows (refer to Layout Plan in **Appendix A**) has been modelled in the post-development DRAINS model (see **Figure 5-5** above). Cross-section of the proposed channel is detailed in **Figure 5-5** below and in the proposed layout plan in **Appendix A**.

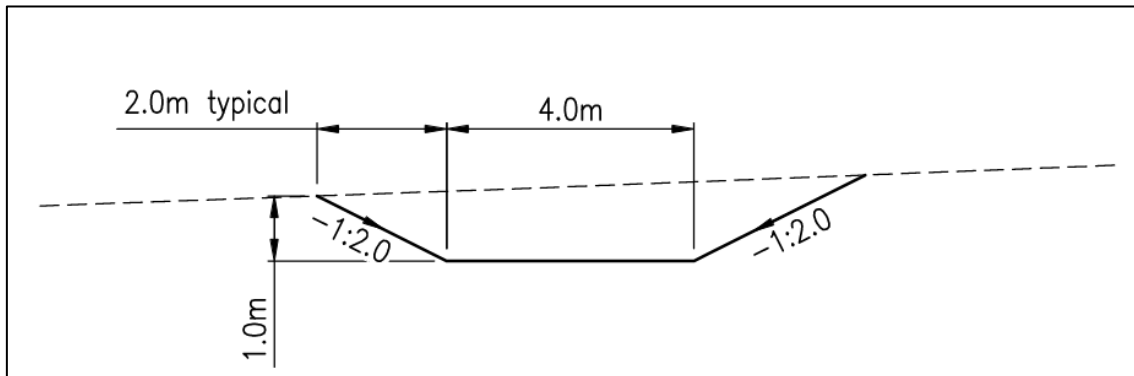


Figure 5-6: Proposed Channel Cross-section

5.4.3 Median peak flow rate comparison

A comparison of the median peak flow rates at the assessment location is provided in the following table below.

Table 4-4: Comparison of pre- and post-development median peak flow rates

Assessment location	Scenario	1EY	0.5EY	0.2EY	10% AEP	5% AEP	2% AEP	1% AEP
1	Pre-development (m ³ /s)	16.1	23.4	35.1	42.7	52.1	63.7	73.7
	Post-development (m ³ /s)	15.9	23.0	34.6	42.2	51.9	62.5	72.3
	Difference (m ³ /s)	-0.2	-0.3	-0.4	-0.6	-0.2	-1.3	-1.4
	Difference (%)	-1.0	-1.3	-1.2	-1.3	-0.5	-2.0	-1.8

The table above indicates post-development median peak flow rates are mitigated at Assessment Location 1 when compared to existing conditions with the incorporation of the proposed channel conveying external catchment flows around the development.

Based on DRAINS modelling and the management strategy outlined in this report, the proposed development will not result in an actionable nuisance with quantifiable loss to properties or road infrastructure, state-controlled or otherwise, downstream of the development.

6. Stormwater Quality

6.1 General

The State Planning Policy (SPP) released in July 2017 provides guidelines on the application of stormwater quality treatment.

The site is located within the Western Queensland climatic region. The SPP states that the pollutant reduction design objectives for the Western Queensland climatic region are applicable for:

- A Material Change of Use for an urban purpose that involves premises 2,500 m² or greater in size and:
 - › will result in six or more dwellings; or
 - › an impervious area greater than 25 percent of the net developable area
- Reconfiguring a lot for urban purposes that involves premises 2,500 m² or greater in size and will result in six or more lots.
- Operational works for an urban purpose that involves disturbing a land area 2,500m² or greater in size

The SPP water quality pollutant load reductions do not apply to the development given the location of the site.

Design standards outlined within this report refer to the specification of materials, processes, and performance requirements for a sediment basin. The sediment basin has been designed in accordance with the Best Practice Erosion and Sediment Control (IECA 2008) guideline.

A Type D sediment basin has been designed for the development. The design Type D sediment basin intends to capture runoff from rainfall depths up to the 24 hour storm duration for the 10% AEP design storm event.

6.2 Erosion control design standard

Erosion control measures will be implemented to either prevent or minimise soil erosion, particularly due to raindrop impact. Common examples of erosion control for similar developments include revegetation, mulching, gravel, soil binding, soil roughening, geotextiles and compost blankets.

The default erosion control standard refers to erosion risk, which is preferentially based on monthly erosivity (R-factor).

6.3 Sediment control design standard

Sediment control measures are implemented to trap sediment that has been displaced by upslope soil erosion. Common examples of sediment control for similar developments include sediment fencing, sediment basin, buffer zones and mulch filter bunds.

The default sediment control standard makes reference to the estimated monthly (or annual) soil loss rate using the RUSLE. The soil loss rate limit defines the maximum allowable soil loss rate from a given catchment draining area to a sediment trap at any instance during the operations. Refer to **Table 6-1**.

Table 6-1: Sediment control standard (default) based on soil loss rate

Area limit (m ²) ^[1]	Soil loss rate limit (t/ha/yr) ^[2]			Soil loss rate limit (t/ha/month) ^[3]		
	Type 1	Type 2	Type 3	Type 1	Type 2	Type 3
250	N/A	N/A	[4]	N/A	N/A	[4]
1000	N/A	N/A	All cases	N/A	N/A	All cases
2500	N/A	> 75	75	N/A	> 6.25	6.25
>2500	> 150	150	75	> 12.5	12.5	6.25

⁴ Refer to relevant regulatory authority for assessment procedures. The default standard is a Type 3 sediment trap.

Alternatively, the monthly rainfall erosivity (R-factor) may be used as an initial check to determine what type of sediment control may be required. Refer to **Table 6-2**.

Table 6-2: Alternative sediment control standards based on monthly erosivity and average monthly rainfall

Area limit (m ²) ^[1]	Monthly erosivity (R-factor) ^[2]		
	Type 1	Type 2	Type 3
250	N/A	N/A	[3]
1000	N/A	N/A	All cases
2500	N/A	> 60	60
>2500	> 100	100	60

Outlined by the IECA (Appendix B Figure B7), the settling zone for a Type D Sediment Basin has two distinct zones; the upper settling zone (minimum 600mm in depth) and the lower sediment storage zone. The sediment storage zone is typically designed to be 50% of the settling zone or a minimum of 2 months of estimated soil loss. Refer to **Figure 6-1** below.

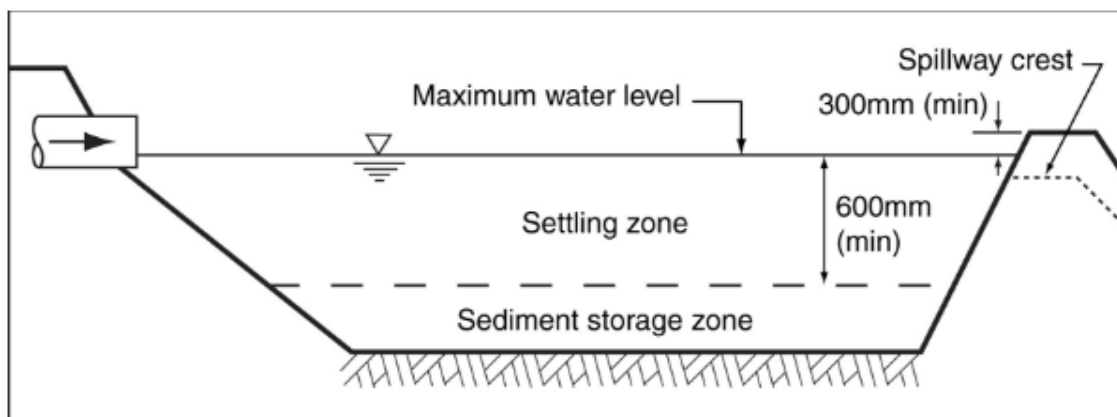


Figure 6-1: Settling zone and sediment storage zone for Type D basin

Within the analysis, a clean out frequency of 6 months was adopted to size the sediment storage zone. The size of the sediment storage zone is a function of the frequency of how often the sediment basin needs to be maintained (de-silted). Whilst the de-silting has been assumed to occur at a 6 month interval, the sediment basin will be monitored on-site and de-silting will be undertaken as required. Should the soil loss assumptions in the analysis differ to the on-site requirements, the sediment storage volume can be increased accordingly to accommodate the additional soil loss without a detrimental change to the performance of the settling zone.

The sediment basin requires the following dimensions:

- A minimum depth of 0.7m (0.6m settling zone, 0.1m sediment storage zone)
- 1V in 3H side slopes
- Specifications of the required sediment basin is detailed in the following table.

Table 6-3: Sediment Basin and Weir dimensions

Basin ID	Catchment ID	Dimensions (m)	Weir Length (m)
Basin 1	D005	27 x 9	5

With the addition of a new sediment basin treating a portion of the development, the historical existing on-site treatment devices will result in improved treatment outcomes as the runoff load entering the historical devices will be reduced. The historical existing treatment devices have therefore not been modelled.

6.4 Flocculants and coagulants

There are numerous different chemical reagent options available for treating sediment in stormwater. When selecting an appropriate reagent, it is important to have consideration for any negative environmental impacts or potential harm to persons.

Common factors that influence the effectiveness of the flocculation process include:

- Homogeneity of the source water i.e. Waters with little turbidity or of variable quality make good flocculation difficult. It is important to note that the composition of organic material also impacts the process.
- Dose control which when left unregulated can lead to poor floc formation.
- Contact between chemicals and water when ensuring that there is enough time to allow flocs to form.

The chemical treatment must be added with even mixing and slowed during flocculation to ensure breaking up of flocculated sediments.

Benchtop and site trials involving soil from the site would need to be undertaken to determine the appropriate chemical reagents for treating water. Examples of some chemical products recommended dosages are shown below in **Table 6-4**.

Table 6-4: Recommended dosage rates for some chemical treatment products

Product	RDR per ML	Chemical group
Gypsum	300-600 kg	Calcium sulphate
Hydr-Gyp	125 L	Calcium sulphate dihydrate
Triple Strike	100 L	Calcium sulphate aluminium sulphate
Turbi-Clear	8.3 L	Aluminium chloralhydrate, polyaluminium
Alchlor Gold	50 L	Aluminium chlorhydrate, polyaluminium chloride Hydroxide, dialuminium chloride pentahydroxide
Multifloc	30 L	Aluminium hydroxychloride (aluminium salt) and organic cationic polyelectrolyte

6.5 Channel design

6.5.1 External catchment conveyance

A Manning's open channel equation has been used to size a channel to divert runoff from an upstream catchment around the majority of the site. Flows were taken from the TUFLOW model (refer to Overland Flow Analysis **Section 4.3.2**) to size the channel. The proposed channel is assigned to divert and redirect D007 and D003 catchment runoff around the site and discharge downstream of the existing dam (refer to **Figure 6-2** below and in the layout drawings in **Appendix A**).

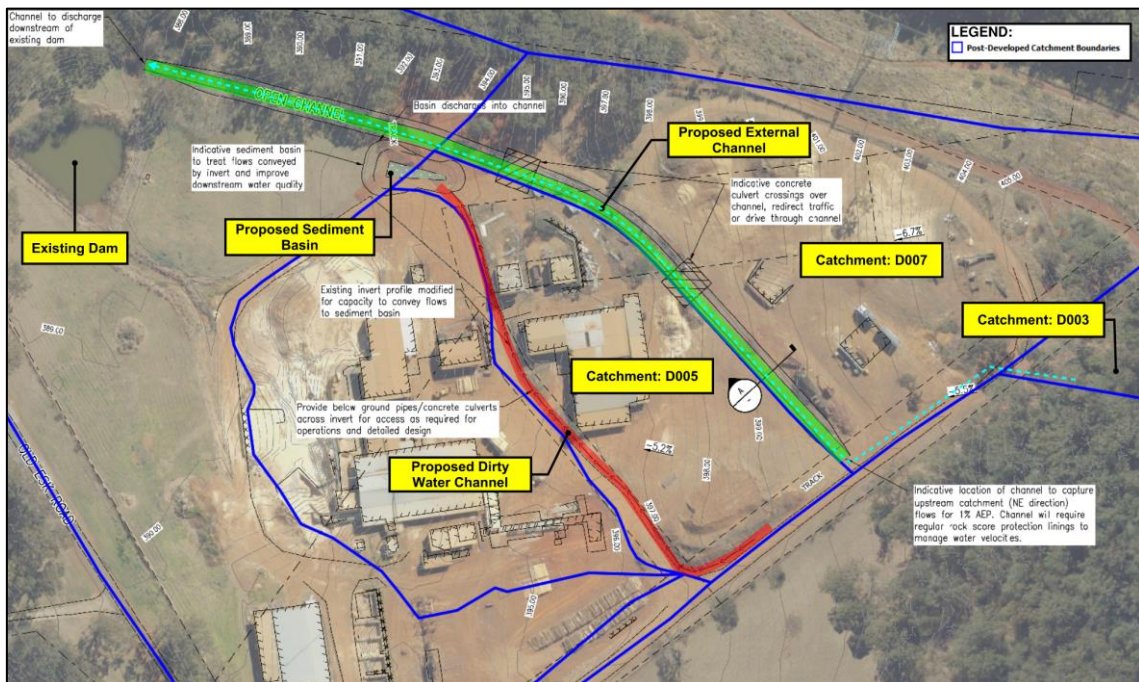


Figure 6-2: Location of proposed channels

The proposed channel has been sized based on the following dimensions and characteristics:

- A Manning's 'n' value of 0.06
- 4m base width
- 1V in 2H batters
- Minimum depth of 1.0m
- Minimum longitudinal grade of 1.0%

A cross section of a proposed channel is shown in the **Figure 5-6** in **Section 5.4.2** and layout plan in **Appendix A**.

Appendix D details the velocity, depth, width, and resulting freeboard expected for the specified channel configuration.

It is noted scour protection will be incorporated during further detail design to manage velocities.

6.5.2 Dirty water channel

To convey runoff from a portion of the site to a sediment basin, a dirty water channel is proposed along the southern boundary of catchment D005 to capture runoff from disturbed and operational areas and convey it to the proposed sediment basin, as illustrated in **Figure 6-2** above.

This channel follows the alignment of an existing drainage path, which will be modified during detailed design to improve flow capacity and convey runoff to the proposed sediment basin.

6.6 Training and competencies

All personnel on site including workers, supervisors, and engineers require a working understanding of the erosion and sediment control measures that are implemented.

It is recommended that all workers should receive basic training. However, senior supervisors should have advanced training and also be involved in the planning and management of the site's erosion and sediment control as they will have a higher level of skill, understanding, and appreciation of the site's constraints.

A basic training induction program should be undertaken by all working personnel before commencing work on site. The induction will cover general erosion and sediment control matters including the relevant legislation, individual responsibilities, specific measures, and water quality objectives. Additional meetings will be used by contractors to address issues related to erosion and sediment control matters.

Advanced training is adopted to target supervisors and relevant staff who will be involved in the planning and management associated with erosion and sediment control. This will involve an overview of the main features of the Primary ESC plan and expand on areas that would benefit from more explanation.

Key items to cover include but are not limited to:

- Regulatory requirements: review the relevant EA conditions and portions of the EP Act and EP Regulation
- Project constraints – topography, soils, climate, catchments
- Design standards
- Suitable controls and design factsheets. A review of the main controls that are expected to be used on site including how they are supposed to function

- Developing progressive ESCP's
- Site ESC inspections and audits
- Maintenance and monitoring requirements.

7. Conclusion

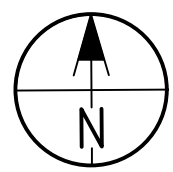
The overall stormwater management strategy outlines that the proposed development will reduce the size of the contributing catchments discharging external to the site. The reduced catchments will therefore not increase the median post-developed peak flow discharging from the site.

The proposed development will not result in an actionable nuisance with quantifiable loss to properties or road infrastructure, state-controlled or otherwise, downstream of the development.

A sediment basin has been designed for the 24 hour 10% AEP storm event to mitigate sediment loads leaving a portion of the development site.

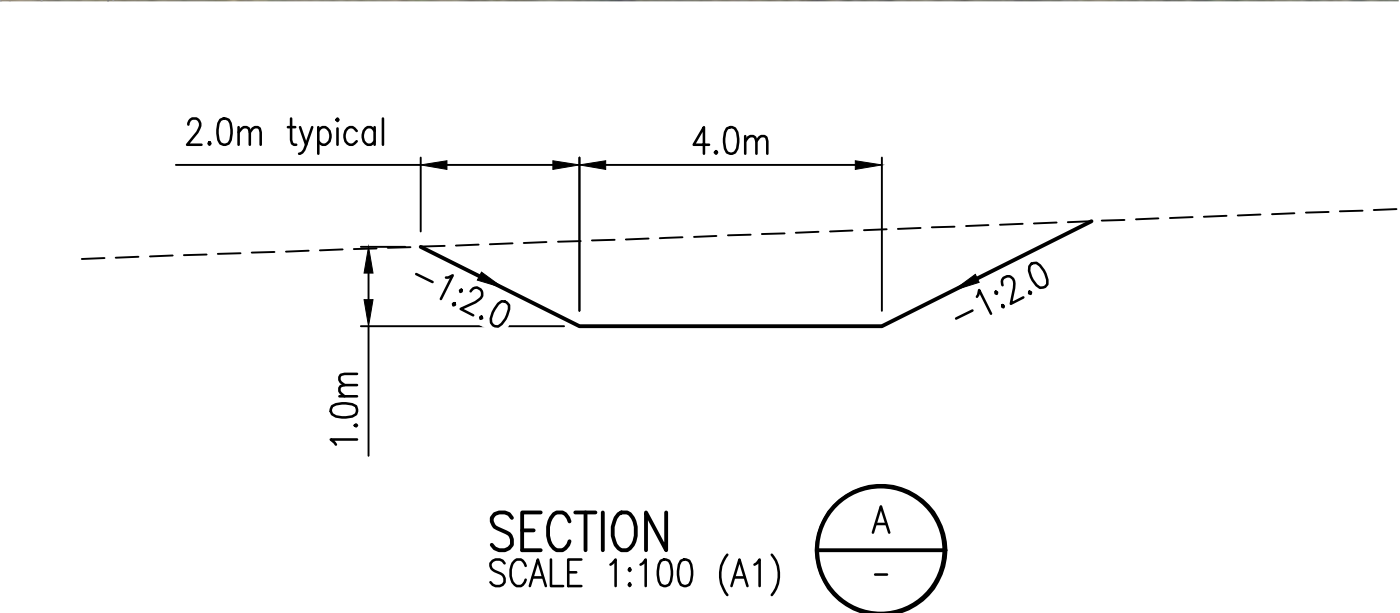
Channels have been designed to convey runoff internal to the development to the sediment basins and around the site operations.

Appendix A Layout plan



- LEGEND:**
- Design Surface
 - Natural Surface
- EXISTING**
- Property Boundary
 - Easement Boundary
 - Extent of Existing Dwelling
 - Retaining Wall
- PROPOSED**
- Stormwater Invert
 - Indicative Filter Media Area
 - Minor Contours
 - Major Contours

- PLAN NOTES:**
- P.1. Plan is intended to be viewed in colour.
P.2. Intervals between contours - 0.2m.
Contours are design surface levels.
- DISCLAIMER NOTES:**
- D.1. This is a sketch plan only and is conceptual only.
D.2. This sketch plan represents design intent and concepts only.
D.3. Information shown on these plans has been compiled from varying sources and may not be accurate and will need verifying. This includes imagery, existing infrastructure, property boundaries and natural surface data.
D.4. No reliance should be placed on the information on this plan for detailed design or any financial dealings involving this land.
D.5. This plan shall not be used for tendering, financing, ordering of materials, construction or any other unintended purpose.



NOT FOR CONSTRUCTION
16 May 2025

CONCEPT SITE GRADING PLAN

Scale 1:750 (A1)



A	FOR APPROVAL	16/05/25	EJT	AJN	AJN	AJN
ISSUE	DESCRIPTION	DATE	DWN	DES	CHK	APP

R.P.E.Q.
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PROJECT
PRO-PINE SAWMILL
256 OLD ESK ROAD
TAROMEQ QLD 4314

TITLE
CONCEPT SITE GRADING PLAN

HEIGHT DATUM AHD	MAP GRID MGA-56	SIZE A1
COUNCIL RAL/MCU NO.		
COUNCIL OW NO.		
PROJECT NO. 24E-0202	DRAWING NO. P-SK0001	ISSUE A

Appendix B BOM and AR&R data

Rainfall & Hydrological Data

Project Number:	24E-0202
Latitude:	-26.8512
Longitude:	152.1700

AR&R 2019

Access Date: 26/05/2025
Source: <http://www.bom.gov.au/water/designRainfalls/revise-ifd/>

Coefficients - Very Frequent

	Annual Exceedance Probability (AEP)							
	12EY	6EY	4EY	3EY	2EY	1EY	0.5EY#	0.2EY*
C0	-0.13508171	0.043224391	0.28969246	0.43366551	0.60738868	0.85216653	1.0849495	1.3139281
C1	0.80045581	0.79143322	0.73984265	0.70908797	0.67195833	0.61846781	0.60644048	0.61149341
C2	0.054119777	0.080243967	0.15421298	0.19168454	0.23138389	0.2766605	0.28867787	0.27558607
C3	-0.050672948	-0.063548036	-0.096198544	-0.11133646	-0.12604716	-0.13962077	-0.14348358	-0.13415629
C4	0.008634249	0.011191218	0.017617464	0.020419333	0.022957265	0.024814388	0.025273331	0.022616403
C5	-0.000570663	-0.000802426	-0.00139548	-0.001642071	-0.001851891	-0.001967738	-0.001981868	-0.001661225
C6	1.1675E-05	1.96836E-05	4.06586E-05	4.90677E-05	5.58466E-05	5.84869E-05	5.80594E-05	4.43936E-05

IFD Design Rainfall Depth (mm) - Very Frequent

Duration	Annual Exceedance Probability (AEP)							
	12EY	6EY	4EY	3EY	2EY	1EY	0.5EY#	0.2EY*
1 min	0.87	1.04	1.34	1.54	1.84	2.34	2.96	3.72
2 min	1.54	1.84	2.34	2.68	3.15	3.95	4.96	6.24
3 min	2.13	2.56	3.27	3.76	4.43	5.55	6.98	8.77
4 min	2.64	3.20	4.11	4.74	5.60	7.04	8.86	11.12
5 min	3.11	3.77	4.87	5.63	6.67	8.40	10.59	13.29
10 min	4.87	5.93	7.75	9.01	10.77	13.70	17.31	21.76
15 min	6.10	7.43	9.72	11.32	13.57	17.36	21.94	27.62
20 min	7.05	8.57	11.19	13.05	15.65	20.09	25.38	31.98
25 min	7.81	9.48	12.37	14.41	17.30	22.24	28.10	35.40
30 min	8.44	10.24	13.34	15.54	18.65	24.01	30.31	38.19
45 min	9.91	11.96	15.52	18.06	21.66	27.92	35.21	44.31
1 hour	10.98	13.22	17.08	19.86	23.80	30.69	38.65	48.56
1.5 hour	12.55	15.04	19.35	22.45	26.87	34.63	43.52	54.52
2 hour	13.71	16.38	21.02	24.36	29.13	37.51	47.08	58.83
3 hour	15.45	18.39	23.52	27.22	32.51	41.83	52.41	65.25
4.5 hour	17.35	20.60	26.28	30.39	36.27	46.62	58.35	72.43
6 hour	18.83	22.31	28.45	32.88	39.23	50.42	63.07	78.21
9 hour	21.13	24.99	31.83	36.78	43.89	56.45	70.63	87.63
12 hour	22.94	27.10	34.50	39.86	47.58	61.27	76.71	95.39
18 hour	25.74	30.37	38.62	44.63	53.33	68.85	86.36	108.02
24 hour	27.89	32.89	41.78	48.29	57.75	74.77	93.94	118.22
30 hour	29.63	34.93	44.34	51.25	61.35	79.63	100.19	126.78
36 hour	31.08	36.62	46.46	53.73	64.36	83.74	105.48	134.12
48 hour	33.34	39.29	49.84	57.67	69.21	90.41	114.07	146.16
72 hour	36.28	42.82	54.46	63.16	76.05	99.96	126.32	163.23
96 hour	37.96	44.92	57.49	66.88	80.82	106.69	134.80	174.54
120 hour	38.89	46.18	59.61	69.62	84.44	111.84	141.14	182.28
144 hour	39.33	46.88	61.17	71.75	87.36	116.00	146.12	187.62
168 hour	39.42	47.21	62.34	73.49	89.84	119.52	150.19	191.27

IFD Design Rainfall Intensity (mm/h)

Duration	Annual Exceedance Probability (AEP)							
	12EY	6EY	4EY	3EY	2EY	1EY	0.5EY#	0.2EY*
1 min	52.42	62.65	80.16	92.57	110.14	140.68	177.56	223.25
2 min	46.15	55.30	70.08	80.31	94.50	118.38	148.85	187.10
3 min	42.51	51.22	65.39	75.14	88.59	110.97	139.61	175.31
4 min	39.67	47.98	61.66	71.08	84.06	105.56	132.93	166.87
5 min	37.30	45.22	58.42	67.51	80.05	100.81	127.06	159.51
10 min	29.24	35.61	46.49	54.07	64.60	82.20	103.83	130.57
15 min	24.42	29.72	38.87	45.30	54.27	69.44	87.75	110.48
20 min	21.14	25.70	33.58	39.15	46.96	60.27	76.15	95.93
25 min	18.74	22.74	29.68	34.59	41.52	53.38	67.43	84.95
30 min	16.89	20.47	26.67	31.08	37.30	48.01	60.62	76.37
45 min	13.21	15.95	20.69	24.08	28.88	37.23	46.94	59.07
1 hour	10.98	13.22	17.08	19.86	23.80	30.69	38.65	48.56
1.5 hour	8.37	10.03	12.90	14.96	17.91	23.09	29.02	36.35
2 hour	6.86	8.19	10.51	12.18	14.56	18.76	23.54	29.41
3 hour	5.15	6.13	7.84	9.07	10.84	13.94	17.47	21.75
4.5 hour	3.86	4.58	5.84	6.75	8.06	10.36	12.97	16.10
6 hour	3.14	3.72	4.74	5.48	6.54	8.40	10.51	13.03
9 hour	2.35	2.78	3.54	4.09	4.88	6.27	7.85	9.74
12 hour	1.91	2.26	2.87	3.32	3.97	5.11	6.39	7.95
18 hour	1.43	1.69	2.15	2.48	2.96	3.83	4.80	6.00
24 hour	1.16	1.37	1.74	2.01	2.41	3.12	3.91	4.93
30 hour	0.99	1.16	1.48	1.71	2.04	2.65	3.34	4.23
36 hour	0.86	1.02	1.29	1.49	1.79	2.33	2.93	3.73
48 hour	0.69	0.82	1.04	1.20	1.44	1.88	2.38	3.04
72 hour	0.50	0.59	0.76	0.88	1.06	1.39	1.75	2.27
96 hour	0.40	0.47	0.60	0.70	0.84	1.11	1.40	1.82
120 hour	0.32	0.38	0.50	0.58	0.70	0.93	1.18	1.52
144 hour	0.27	0.33	0.42	0.50	0.61	0.81	1.01	1.30
168 hour	0.23	0.28	0.37	0.44	0.53	0.71	0.89	1.14

Note:
The 0.5 EY design rainfall corresponds to the 2 year Average Recurrence Interval (ARI) IFD **not** the 50% AEP IFD.
* The 0.2 EY design rainfall corresponds to the 5 year Average Recurrence Interval (ARI) IFD **not** the 20% AEP IFD.

Coefficients - Frequent and Infrequent

	Annual Exceedance Probability (AEP)						
	63.2% AEP	50% AEP	20% AEP	10% AEP	5% AEP	2% AEP	1% AEP
C0	0.85216653	0.98058957	1.2941256	1.4569393	1.5908145	1.7403483	1.8389108
C1	0.61846781	0.60644066	0.61149323	0.63513011	0.66667789	0.68233466	0.66802812
C2	0.2766605	0.28867757	0.27558625	0.24269973	0.20052496	0.17704867	0.1922401
C3	-0.13962077	-0.14348345	-0.13415638	-0.11768021	-0.097332478	-0.08496768	-0.090796888
C4	0.024814388	0.025273306	0.022616426	0.018871455	0.014397697	0.011485972	0.012518986
C5	-0.001967738	-0.001981865	-0.001661228	-0.001270287	-0.00081546	-0.000501063	-0.00058544
C6	5.84869E-05	5.80594E-05	4.43936E-05	2.92551E-05	1.1995E-05	-5.63193E-07	2.04941E-06

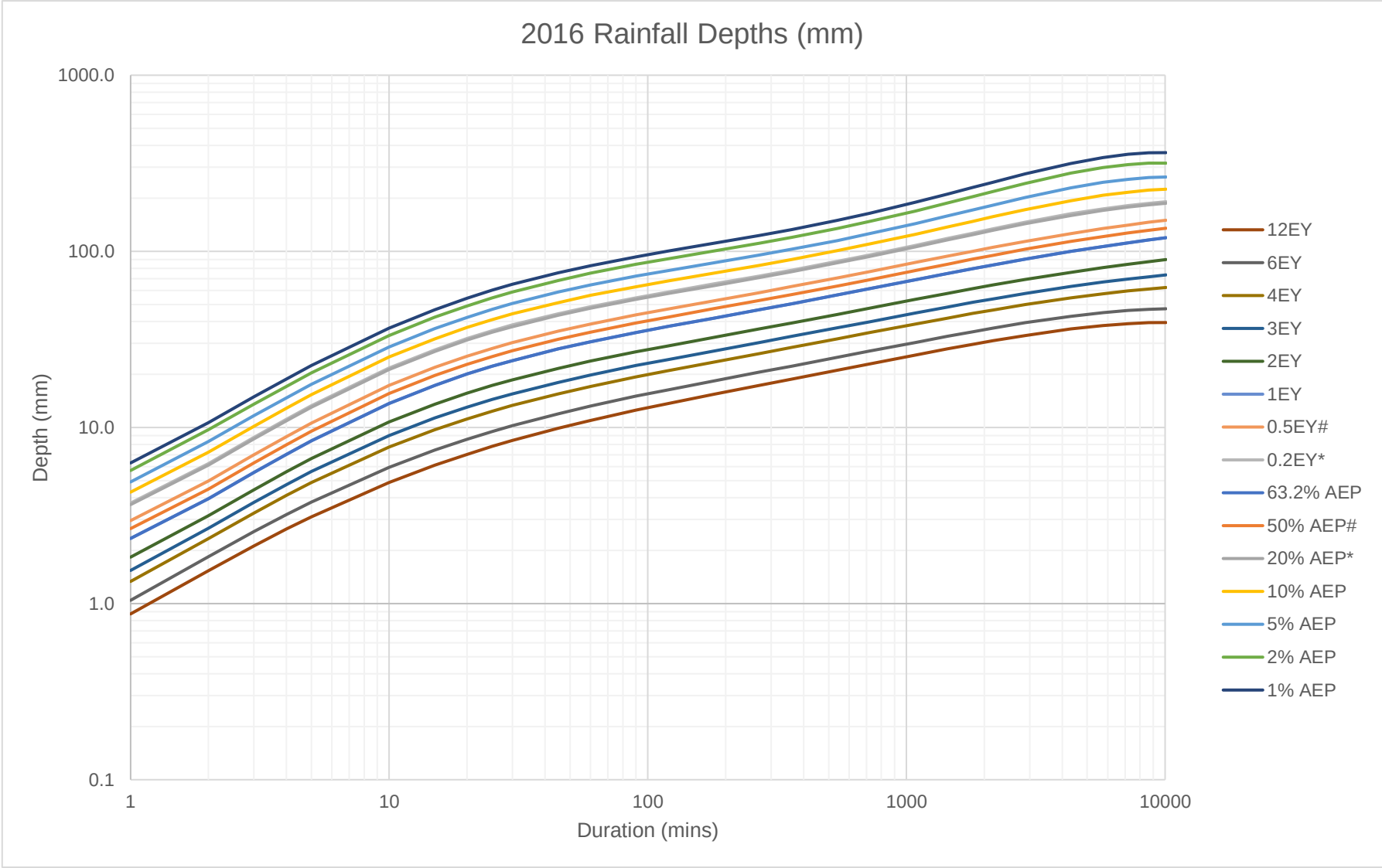
IFD Design Rainfall Depth (mm) - Frequent and Infrequent

Duration	Annual Exceedance Probability (AEP)						
	63.2% AEP	50% AEP#	20% AEP*	10% AEP	5% AEP	2% AEP	1% AEP
1 min	2.34	2.67	3.65	4.29	4.91	5.70	6.29
2 min	3.95	4.47	6.11	7.23	8.33	9.71	10.66
3 min	5.55	6.29	8.59	10.15	11.66	13.56	14.91
4 min	7.04	7.98	10.91	12.85	14.73	17.12	18.84
5 min	8.40	9.54	13.03	15.34	17.56	20.38	22.45
10 min	13.70	15.59	21.33	25.08	28.63	33.22	36.68
15 min	17.36	19.76	27.08	31.85	36.38	42.25	46.68
20 min	20.09	22.87	31.35	36.91	42.20	49.05	54.21
25 min	22.24	25.31	34.70	40.88	46.78	54.41	60.15
30 min	24.01	27.31	37.44	44.13	50.53	58.81	65.00
45 min	27.92	31.72	43.44	51.24	58.75	68.44	75.65
1 hour	30.69	34.82	47.61	56.16	64.44	75.10	83.00
1.5 hour	34.63	39.21	53.45	63.02	72.30	84.27	93.16
2 hour	37.51	42.42	57.67	67.93	77.90	90.78	100.39
3 hour	41.83	47.22	63.97	75.22	86.15	100.38	111.09
4.5 hour	46.62	52.56	71.01	83.37	95.34	111.12	123.16
6 hour	50.42	56.82	76.67	89.96	102.82	119.92	133.11
9 hour	56.45	63.63	85.91	100.83	115.26	134.76	149.98
12 hour	61.27	69.11	93.52	109.92	125.83	147.54	164.57
18 hour	68.85	77.80	105.91	125.00	143.70	169.51	189.74
24 hour	74.77	84.63	115.90	137.42	158.70	188.24	211.29
30 hour	79.63	90.26	124.29	148.00	171.67	204.60	230.17
36 hour	83.74	95.03	131.49	157.18	183.04	219.06	246.90
48 hour	90.41	102.77	143.29	172.36	202.06	243.36	275.13
72 hour	99.96	113.80	160.03	193.96	229.26	278.06	315.76
96 hour	106.69	121.44	171.12	207.93	246.50	299.45	341.17
120 hour	111.84	127.15	178.71	216.90	256.91	311.45	355.77
144 hour	116.00	131.64	183.94	222.39	262.42	316.63	362.52
168 hour	119.52	135.31	187.52	225.37	264.34	316.81	363.46

IFD Design Rainfall Intensity (mm/h) - Frequent and Infrequent

Duration	Annual Exceedance Probability (AEP)						
	63.2% AEP	50% AEP#	20% AEP*	10% AEP	5% AEP	2% AEP	1% AEP
1 min	140.68	159.96	218.87	257.57	294.46	341.96	377.38
2 min	118.38	134.10	183.44	217.01	249.94	291.15	319.92
3 min	110.97	125.77	171.87	202.92	233.14	271.15	298.12
4 min	105.56	119.76	163.60	192.82	221.01	256.74	282.55
5 min	100.81	114.47	156.39	184.11	210.68	244.56	269.38
10 min	82.20	93.54	128.01	150.49	171.80	199.34	220.07
15 min	69.44	79.05	108.31	127.41	145.53	169.01	186.74
20 min	60.27	68.61	94.05	110.73	126.59	147.14	162.62
25 min	53.38	60.75	83.29	98.12	112.27	130.60	144.35
30 min	48.01	54.62	74.88	88.25	101.06	117.62	130.01
45 min	37.23	42.29	57.92	68.32	78.34	91.26	100.87
1 hour	30.69	34.82	47.61	56.16	64.44	75.10	83.00
1.5 hour	23.09	26.14	35.63	42.01	48.20	56.18	62.10
2 hour	18.76	21.21	28.84	33.97	38.95	45.39	50.19
3 hour	13.94	15.74	21.32	25.07	28.72	33.46	37.03
4.5 hour	10.36	11.68	15.78	18.53	21.19	24.69	27.37
6 hour	8.40	9.47	12.78	14.99	17.14	19.99	22.19
9 hour	6.27	7.07	9.55	11.20	12.81	14.97	16.66
12 hour	5.11	5.76	7.79	9.16	10.49	12.30	13.71
18 hour	3.83	4.32	5.88	6.94	7.98	9.42	10.54
24 hour	3.12	3.53	4.83	5.73	6.61	7.84	8.80
30 hour	2.65	3.01	4.14	4.93	5.72	6.82	7.67
36 hour	2.33	2.64	3.65	4.37	5.08	6.08	6.86
48 hour	1.88	2.14	2.99	3.59	4.21	5.07	5.73
72 hour	1.39	1.58	2.22	2.69	3.18	3.86	4.39
96 hour	1.11	1.27	1.78	2.17	2.57	3.12	3.55
120 hour	0.93	1.06	1.49	1.81	2.14	2.60	2.96
144 hour	0.81	0.91	1.28	1.54	1.82	2.20	2.52
168 hour	0.71	0.81	1.12	1.34	1.57	1.89	2.16

Note:
The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.
* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.



AR&R Datahub Information

Adopted Temporal Pattern	East Coast North
--------------------------	------------------

Median Preburst Depths and Ratios (mm)

Duration (hours)	AEP (%)					
	50	20	10	5	2	1
1	0.9	1.5	1.9	2.2	3.6	4.6
1.5	0.0	0.2	0.3	0.4	4.9	8.2
2	0.0	0.7	1.1	1.5	6.8	10.8
3	0.2	0.4	0.6	0.8	3.8	6.0
6	0.0	1.2	2.0	2.8	10.0	15.3
12	0.0	5.2	8.7	12.0	15.3	17.9
18	0.0	6.4	10.6	14.7	14.9	15.0
24	0.0	5.4	9.0	12.5	12.5	12.6
36	0.0	0.7	1.2	1.7	4.5	6.6
48	0.0	0.1	0.1	0.1	2.4	4.2
72	0.0	0.0	0.0	0.0	0.0	0.0

Storm Losses

ID	10676
Storm Initial Losses (mm)	22
Storm Continuing Losses (mm/h)	2.9
Time Accessed	31 March 2025 02:20PM
Version	2016_v1

Adopted Pervious Losses

(Validated to Rational Method)	
Initial Loss (mm)	22
Continuing Loss (mm/hr)	2

Interim Climate Change Factors

Year	RCP 4.5	RCP 6	RCP 8.5
2030	<1 hour	1.5 Hours	2 Hours
2040	1.18	1.17	1.16
2050	1.21	1.19	1.17
2060	1.22	1.2	1.18
2070	1.23	1.21	1.2
2080	1.24	1.22	1.2
2090	1.23	1.21	1.2

River Region

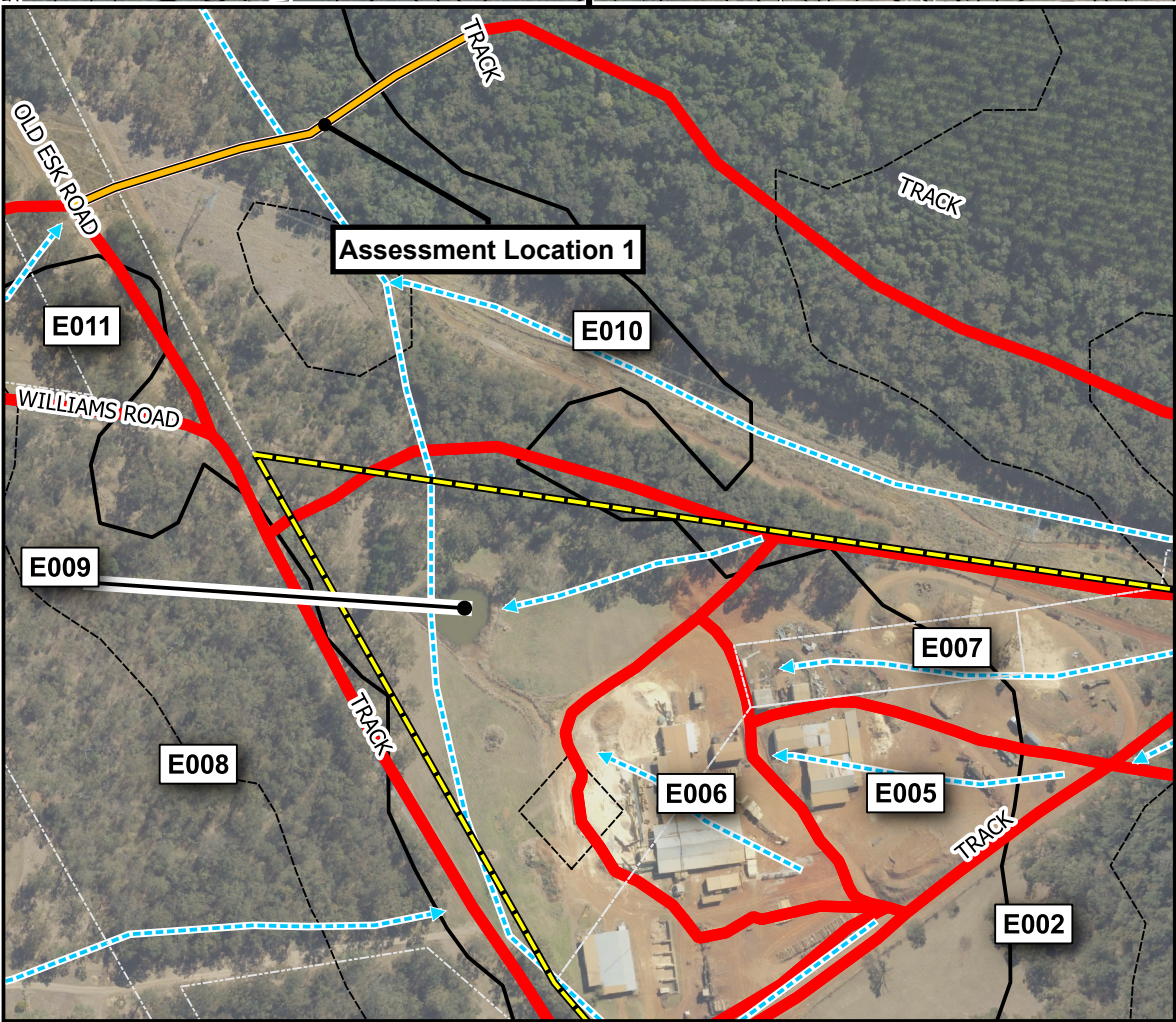
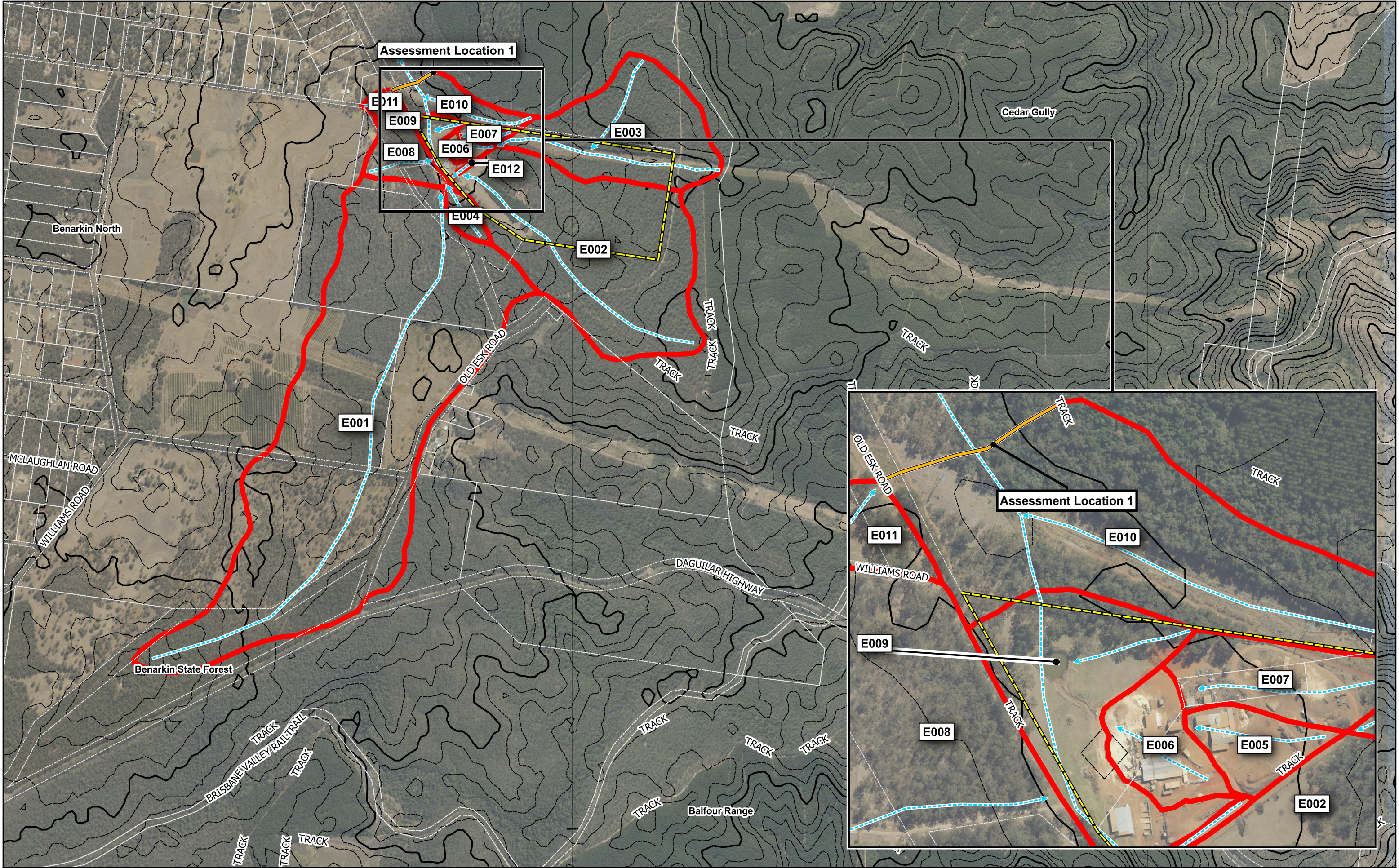
Division	North East Coast
River Number	43
River Name	Brisbane River

ARF Parameters

Zone	East Coast North
------	------------------

a	b	c	d	e	f	g	h	i
0.327	0.241	0.448	0.36	0.00096	0.48	-0.21	0.012	-0.0013

Appendix C Catchment plans



Scale (at A3)
1:18,000
0 100 200 300 400
Metres
Geocentric Datum of Australia 1994
Map Grid of Australia Zone 56



Legend:

- Cadastre
- Site Boundary
- Pre-Developed Catchment Boundaries

- Pre-Developed Flow Path
- Assessment Location

Title:

**Pre-Development Catchment Plan
Pro-Pine Sawmill - 256 Old Esk Road
Taromeo, QLD, 4314**

Project Number:

24E-0202

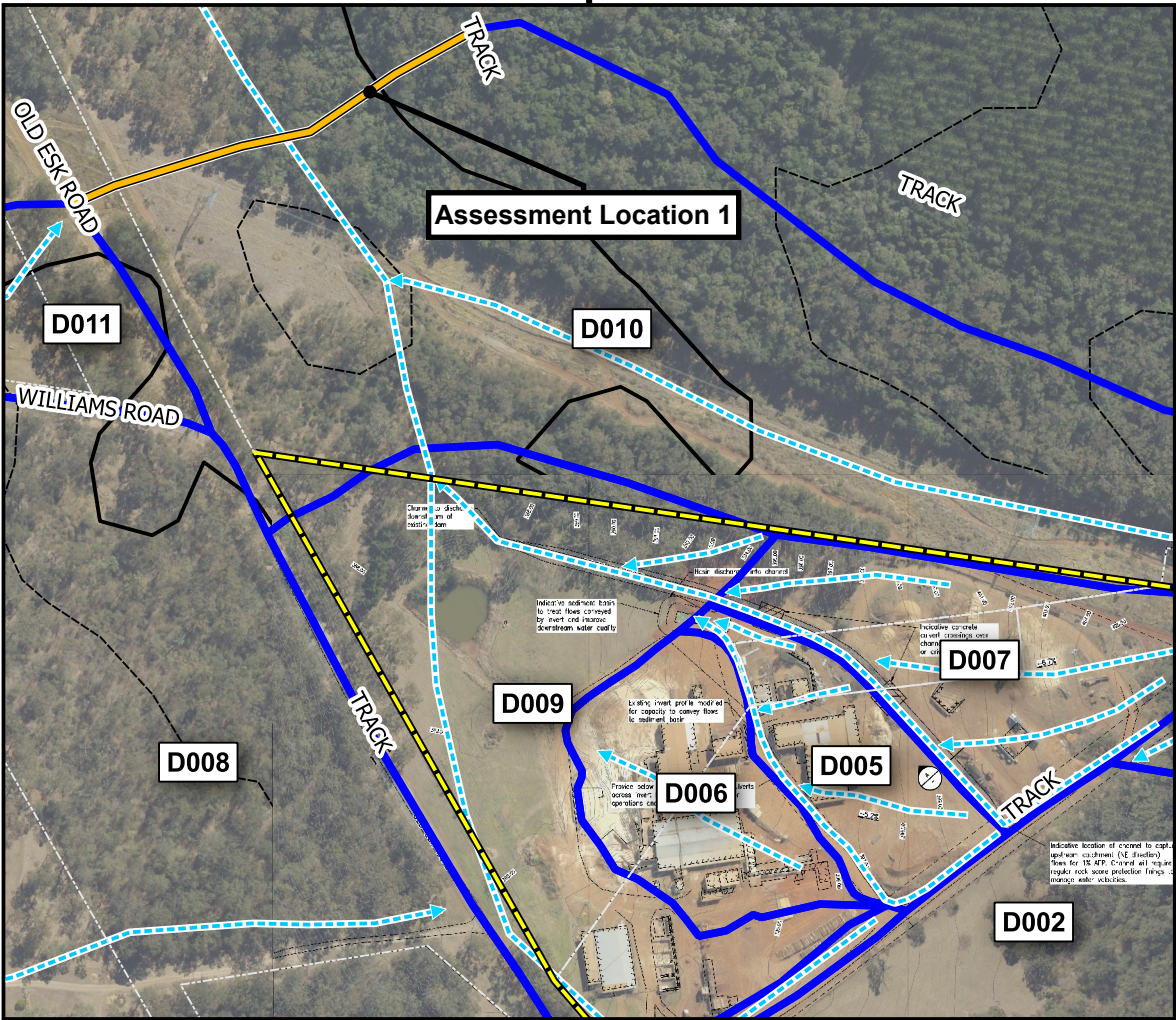
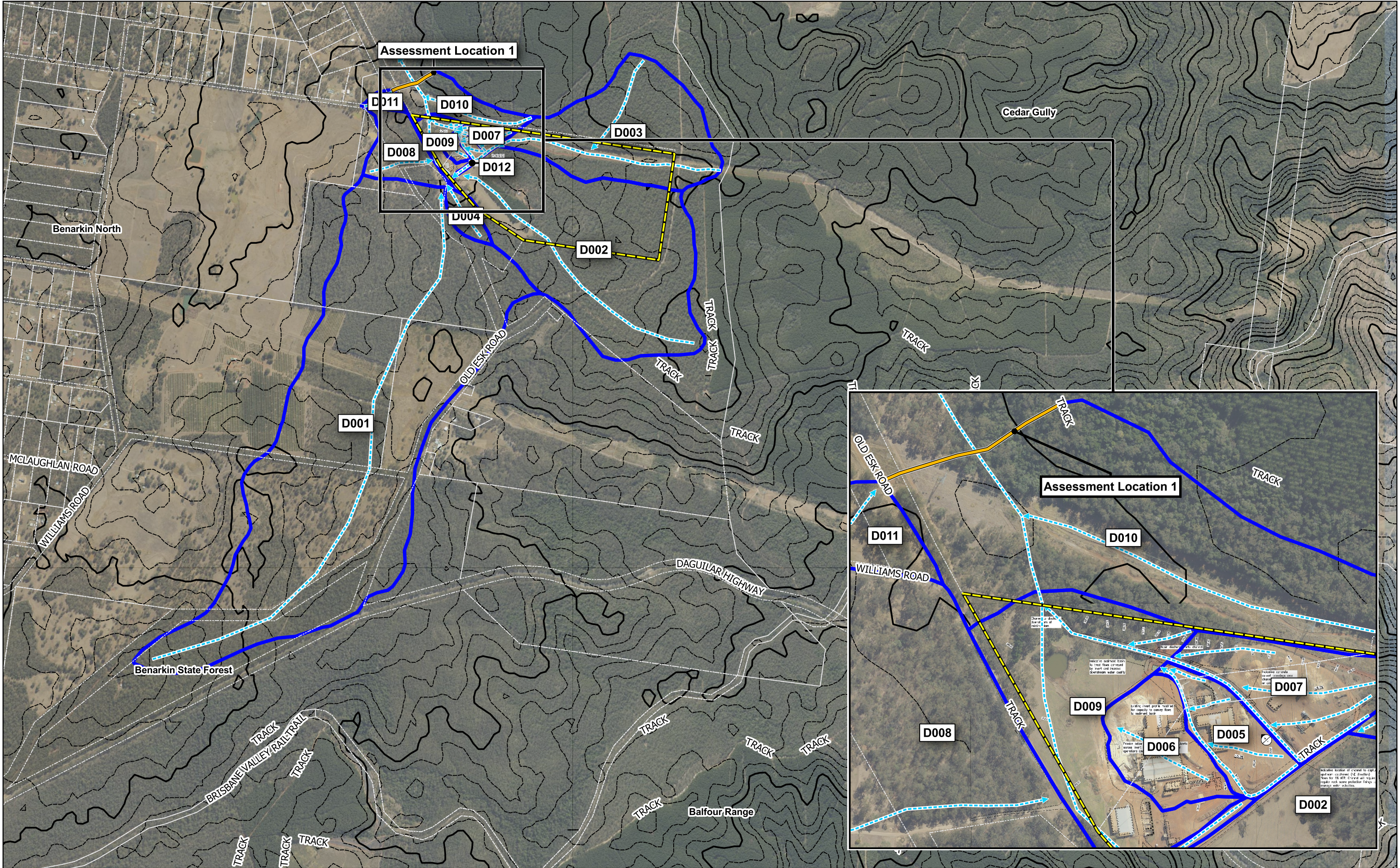
Rev:

A

Appendix E.1

Date:

23/05/2025



 Scale (at A3) 1:18,000 0 100 200 300 400 Metres Geocentric Datum of Australia 1994 Map Grid of Australia Zone 56 	Legend:  Cadastral  Site Boundary  Post-Developed Catchment Boundaries  Post-Developed Flow Path  Assessment Location	Title: Post-Development Catchment Plan Pro-Pine Sawmill - 256 Old Esk Road Taromeo, QLD, 4314		Project Number: 24E-0202	Rev: A
				Appendix E.2	
				Date: 26/05/2025	

Appendix D Channel Calculations

CHANNEL CALCULATIONS

Project:	24E-0202
Site address:	Pro Pine Taromeo
Channel Name:	MD01
Comments:	Concept design

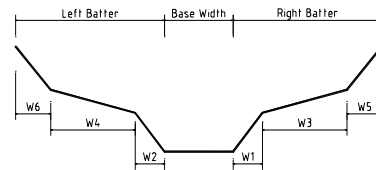
Profile Template
Custom

Scenario
Post Development

Channel Data Input

Left Batter

	W6	W4	W2
Width (m)	0.000	0.000	3.000
Slope (1V in _)	28.000	0.300	2.000
Manning's n	0.030	0.030	0.030
Base Width (m)	4.000		
Manning's n	0.060		
Longitudinal Grade (%)	1.00		
Allowable D*V (m ² /s)	0.60		



Right Batter

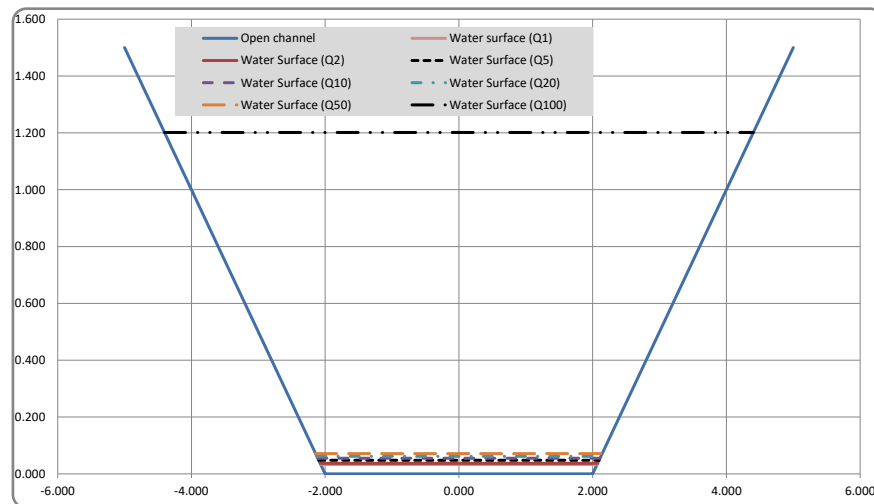
	W1	W3	W5
Width (m)	3.000	0.000	0.000
Slope (1V in _)	2.000	20.000	4.000
Manning's n	0.030	0.030	0.030

OVERLAND FLOW LESS PIPE FLOW OF

m³/s

AEP (%)	Total Flow (m ³ /s)	Less Pipe Flow (m ³ /s)	Residual Channel Flow (m ³ /s)
12EY	0.01	0.00	0.01
6EY	0.01	0.00	0.01
4EY	0.01	0.00	0.01
3EY	0.01	0.00	0.01
2EY	0.02	0.00	0.02
63.2%	0.02	0.00	0.02
50%	0.03	0.00	0.03
20%	0.04	0.00	0.04
10%	0.05	0.00	0.05
5%	0.07	0.00	0.07
2%	0.09	0.00	0.09
1%	15.30	0.00	15.30

PROFILES - standard AEP events



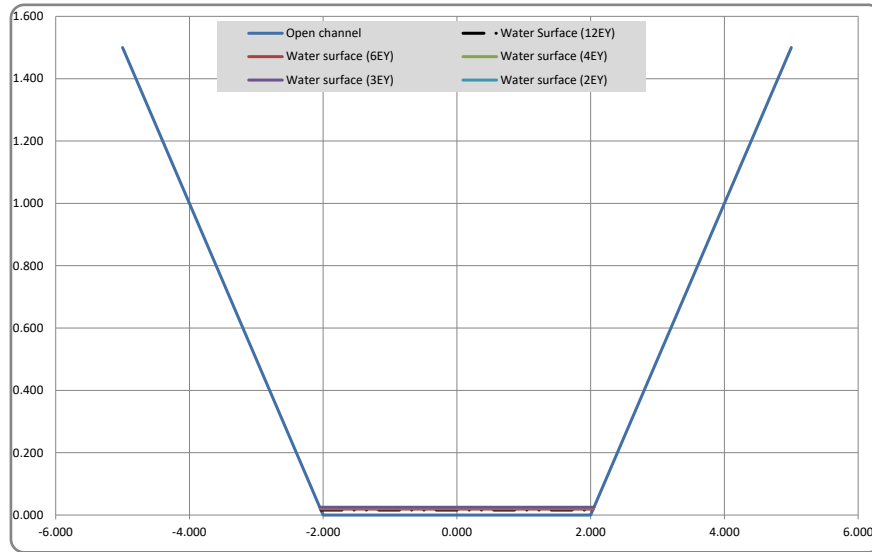
RESULTS - Standard AEP events

AEP (%)	Flow (m ³ /s)	Flow Depth (m)	Flow Width (m)	Hydraulic Radius (m)	Velocity (m/s)	Calculated D*V (m ² /s)	Freeboard (m)	Calculated Effective Manning's n
63.2%	0.023	0.033	4.132	0.032	0.172	0.006	1.467	0.059
50%	0.028	0.037	4.149	0.036	0.186	0.007	1.463	0.059
20%	0.043	0.048	4.192	0.047	0.221	0.011	1.452	0.059
10%	0.055	0.055	4.220	0.053	0.242	0.013	1.445	0.058
5%	0.067	0.062	4.247	0.060	0.261	0.016	1.438	0.058
2%	0.085	0.071	4.285	0.068	0.288	0.021	1.429	0.058
1%	15.300	1.201	8.805	0.821	1.989	2.390	0.299	0.044

CHANNEL CAPACITY

Total Flow Capacity	24.415
Total Top Width	10.000
Total Depth	1.500
Hydraulic Radius	0.981
Velocity at Capacity	2.325
D*V (m ² /s)	3.488
Effective Manning's n	0.042

PROFILES - Very frequent events



RESULTS - Very frequent events

AEP	Flow (m ³ /s)	Flow Depth (m)	Flow Width (m)	Hydraulic Radius (m)	Velocity (m/s)	Calculated D*V (m ² /s)	Freeboard (m)	Calculated Effective Manning's n
12EY	0.007	0.016	4.065	0.016	0.107	0.002	1.484	0.060
6EY	0.009	0.019	4.077	0.019	0.120	0.002	1.481	0.059
4EY	0.012	0.023	4.091	0.022	0.134	0.003	1.477	0.059
3EY	0.014	0.025	4.100	0.025	0.143	0.004	1.475	0.059
2EY	0.018	0.028	4.112	0.028	0.154	0.004	1.472	0.059

CHANNEL CAPACITY

Total Flow Capacity	24.415
Total Top Width	10.000
Total Depth	1.500
Hydraulic Radius	0.981
Velocity at Capacity	2.325
D*V (m ² /s)	3.488
Effective Manning's n	0.042

Appendix E Flood maps



Pre-Developed 1% AEP Depth (m)

0
0.1 - 0.3
0.3 - 0.5
0.5 - 1
> 1



Scale (at A3)
1:3,000
0 25 50 75 100
Metres
Geocentric Datum of Australia 1994
Map Grid of Australia Zone 56



Legend: Cadastre Site Boundary

Title:

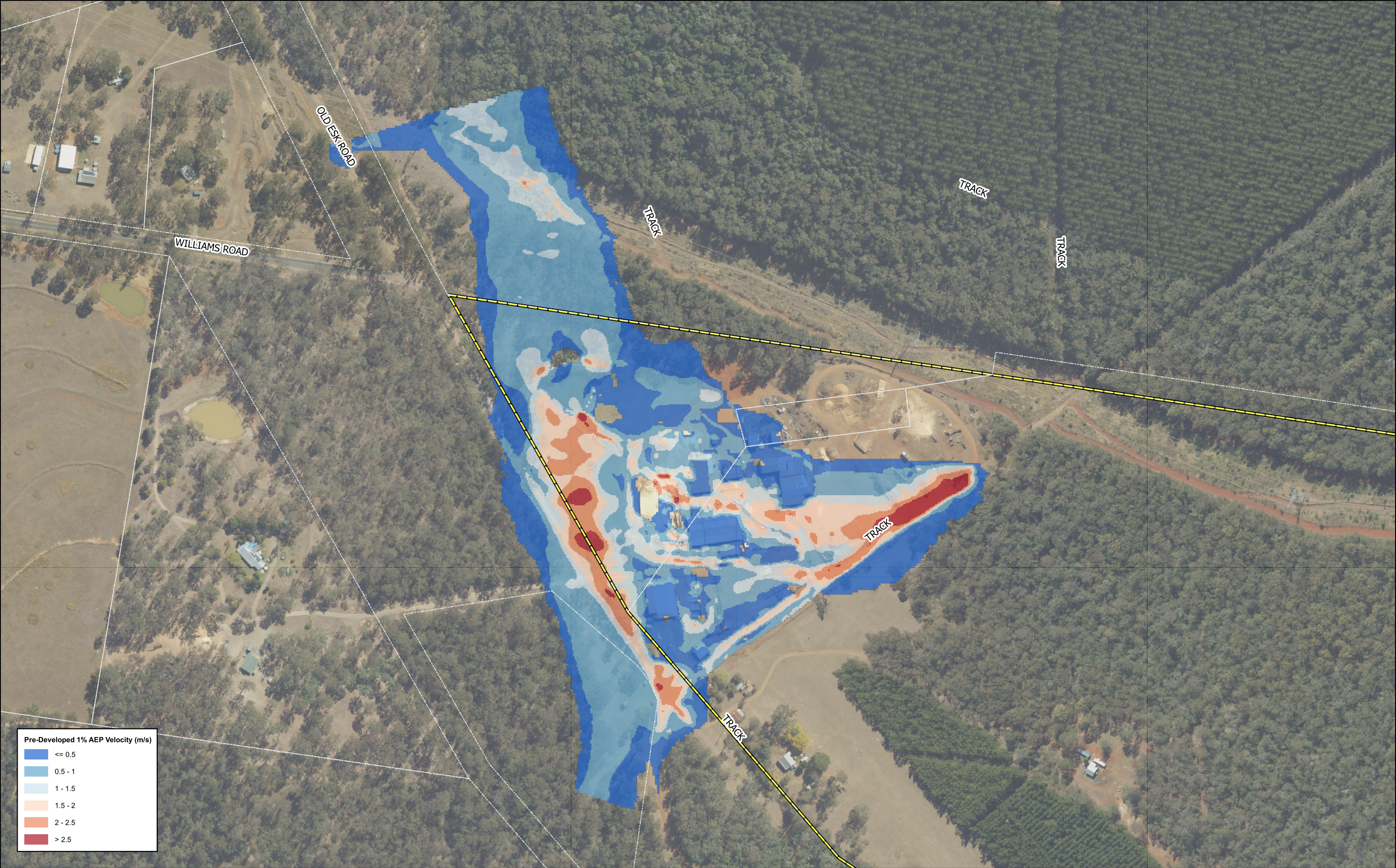
**Pre-Developed
1% AEP Depth
Pro-Pine Sawmill,
256 Old Esk Road | Taromeo**

Project Number:
24E-0202

Rev:
A

Appendix E.1

Date: 19/05/2025



Pre-Developed 1% AEP Velocity (m/s)

Dark Blue	<= 0.5
Medium Blue	0.5 - 1
Light Blue	1 - 1.5
Light Orange	1.5 - 2
Orange	2 - 2.5
Dark Red	> 2.5

N

Scale (at A3)
1:3,000

0 25 50 75 100

Metres

Geocentric Datum of Australia 1994
Map Grid of Australia Zone 56

RMA
Engineers

Legend:

	Cadastral		Site Boundary
--	-----------	--	---------------

Title:

**Pre-Developed
1% AEP Velocity
Pro-Pine Sawmill,
256 Old Esk Road | Taromeo**

Project Number: 24E-0202	Rev: A
Appendix E.2	
Date:	19/05/2025



Depth x Velocity (m2/s)

<= 0.4
0.4 - 0.6
> 0.6

N

Scale (at A3)
1:3,000

0 25 50 75 100

Metres

Geocentric Datum of Australia 1994
Map Grid of Australia Zone 56

Legend:

	Cadastral		Site Boundary
--	-----------	--	---------------

Title:

**Pre-Developed
1% AEP Depth x Velocity
Pro-Pine Sawmill,
256 Old Esk Road | Taromeo**

Project Number: 24E-0202	Rev: A
Appendix E.3	
Date:	19/05/2025

Appendix F Rational Method Check

Table F1: Rational Method Check

Stormwater Event	Rational Method	DRAINS	Difference (m ³ /s)	Difference %
1EY	9.7	9.0	-0.7	-8%
0.5EY	13.0	12.9	-0.1	-1%
0.2EY	16.3	18.9	2.6	14%
10%	22.2	24.9	2.7	11%
5%	26.7	29.6	2.9	10%
2%	34.1	37.0	2.9	8%
1%	39.4	43.0	3.6	8%

Appendix G Survey

Pro Pine

DETAIL SURVEY
Old Esk Road,
Taromeo

GENERAL NOTES:

1. VISIBLE SERVICES ONLY HAVE BEEN LOCATED. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON THE SITE, THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR POSSIBLE LOCATION OF FURTHER UNDERGROUND SERVICES AND DETAILED LOCATION OF ALL SERVICES.
2. MGA2020 ZONE 56 COORDINATES & AHD ELEVATIONS DERIVED FROM :GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) PSM; 9117, E 414 182.249, N 7 025 669.659, RL 434.782
3. BOUNDARIES HAVE NOT BEEN SURVEYED OR REINSTATED
4. BOUNDARIES SHOWN ARE COMPILED FROM DCDB DATA.
5. CONTOUR INTERVAL SHOWN IS 1.0 METRE.

LEGEND

- //—//— FENCE
- ===== EDGE OF BITUMEN
- EDGE OF ROAD
- CROWN OF ROAD
- SW—SW— STORMWATER LINE
- E—E— ELECTRICITY O/H
- POWER POLE
- ⊕ STREET SIGN
- ⊙ SURVEY CONTROL POINT



Revisions	Surveyed	Drawn	Checked	Passed	Date
A ORIGINAL PLAN	JGI	DTK	AJP	AJP	02.04.25



TOOWOOMBA
25/489-491 South St, Harristown Ph: (07) 5437 8555
mail@dsqsurvey.com ABN: 91 615 043 251
www.dsqsurvey.com ACN: 615 043 251
SUNSHINE COAST - DALBY - CHINCHILLA

Horiz. Datum MGA2020-56	Vert. Datum AHD
Origin PSM 9117	Origin PSM 9117
	RL 434.782

Locality: TAROMEO
Local Government: SOUTH BURNETT R. C.

SHEET 1 OF 1	Scale A3 1:2500
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DRAWING NUMBER	REV.
15704-DTM-01	A

COORDINATE TABLE

Point #	Easting	Northing	Elevation	Description
9000	417447.45	7029587.45	392.48	TBM STRPKT
9001	417196.77	7029934.36	392.21	TBM NIB
9002	417605.92	7029668.42	398.38	TBM STRPKT
9117	414182.25	7025669.66	434.76	OPSM



Scale 1:2500 - Lengths are in Metres.

