Longreach Regional Council
Ilfracombe Isisford Longreach Yaraka

Address all correspondence to:
Chief Executive Officer
PO Box 472, Longreach QLD 4730
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Email: council@longreach.qld.gov.au
ABN: 16 834 804 112

15 December 2025

Darren Brewer
Manager – Appeals and Regional Interests
PO Box 15009
City East QLD 4002

Via email: Darren.Brewer@dsdip.qld.gov.au

Dear Mr Brewer,

Re: Amendment to Regional Interests Development Approval RPI24/030

Council refers to the Regional Interests Development Approval granted for RPI24/030 under section 53 of the *Regional Planning Interests Act 2014*. Further planning for construction has identified the need for minor amendments to accommodate temporary coffer dams and an updated construction methodology, with the intention of delivering the works safely and efficiently.

Council is seeking approval for the following proposed changes to the existing approval:

- An increase in the total disturbance area from 3.47 hectares to 3.93 hectares.
- An increase in the construction disturbance footprint from 1.64 hectares to 1.81 hectares, and in temporary laydown areas from 1.83 hectares to 2.12 hectares.
- Updates to approved plans to include temporary coffer dams and a revised project layout (including replacement of Figure 1-1).
- Amendments to Conditions 1 and 2 to reflect the revised disturbance areas.
- Removal of Condition 7 (fish passage), consistent with the exemption granted under the Ministerial Infrastructure Designation.

These changes are proposed as minor amendments and, if approved, will not result in widespread or irreversible impacts on the environmental attributes of the Channel Country Strategic Environmental Area. All works will continue to be carried out in accordance with approved environmental management plans.

Accordingly, pursuant to section 55 of the *Regional Planning Interests Act 2014*, Council requests the Chief Executive's consideration and approval of the proposed amendment to the existing RIDA, and further requests consideration of waiving additional public notification under section 55(2).

Should you require any further information, please do not hesitate to contact André Pretorius, Director of Works, on (07) 4658 4115.

Yours sincerely,

Brett Walsh
Chief Executive Officer

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15 December 2025

RPI Act, Development Assessment Team

PO Box 15009, City East QLD 4002

Attention: RPI Act, Development Assessment Team

Dear Development Assessment Team,

RE: Request for Approval – Amendment to Regional Interests Development Approval (RIDA) for RPI24/030 Longreach Regional Council - Thomson River Weir Project

We refer to the Regional Interests Development Approval granted to Longreach Regional Council for the RPI24/030 Longreach Regional Council - Thomson River Weir Project Given under section 53 of the Regional Planning Interests Act 2014.

Further planning has identified the need for minor amendments to the approved disturbance footprint and conditions to accommodate temporary coffer dams and updated construction methodology. These changes are necessary to ensure safe and efficient delivery of the works.

The amendment will:

- Increase the total disturbance footprint from 3.47 ha to 3.91 ha (approx. 10% increase);
- Update Conditions 1 and 2 to reflect revised disturbance areas;
- Remove Condition 7 (fish passage), consistent with the approved exemption under the MID;
- Update approved plans to include temporary coffer dams.
- Update Figure 1-1

The proposed changes are minor and will not result in widespread or irreversible impacts on the environmental attributes of the Channel Country Strategic Environmental Area. All works will comply with approved environmental management plans.

Accordingly, pursuant to section 55 of the *Regional Planning Interests Act 2014*, we seek the Chief Executive's approval to amend the existing RIDA and request consideration of waiving further public notification under section 55(2).

Please find attached:

- Amended RPI Act application and supporting report;
- Updated plans showing revised disturbance areas;
- Environmental management considerations.

Should you have any questions, please contact me on my email at Rebecca.Carswell@engeny.com.au

Regards,

Rebecca Carswell
Principal Environmental Specialist

DISCLAIMER

This letter has been prepared on behalf of and for the exclusive use of Department of State Development, Infrastructure, Local Government and Planning and is subject to and issued in accordance with Department of State Development, Infrastructure, Local Government and Planning instruction to Engeny Australia Pty Ltd (Engeny). The content of this letter was based on previous information and studies supplied by Department of State Development, Infrastructure, Local Government and Planning

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LONGREACH REGIONAL COUNCIL

Thomson River Weir

Regional Interest Development Approval Amendment

GLC00322_0007-001-1

15 DECEMBER 2025

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Rev	Date	Description	Author	Reviewer	Project Mgr.
0	4/12/2025	Draft	T. Russ	R. Carswell	R. Carswell
1	15/12/2025	Final	T. Russ	R. Carswell	R. Carswell

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Appendices

Tables

Figures

1. INTRODUCTION

This report has been prepared in support of an amendment to the existing Regional Interests Development Approval (RIDA) RPI24/030. The amendment is required as Longreach Regional Council (LRC) requires increased disturbance areas to allow for the construction of temporary coffer dams during weir raise construction. The amendments have been proposed to align with the Ministerial Infrastructure Designation (MID) proposed conditions.

The Thomson River and its associated floodplain is identified as a Strategic Environmental Area - Designated Precinct (SEA-DP) under the Central West Regional Plan 2009 (the Regional Plan). In accordance with Section 27 of the Regional Planning Interests Act 2014 (RPI Act), the proposed development is expected to impact features, qualities, characteristics, or other attributes of the area linked to matters of environmental significance within a SEA and involves undertaking a Regulated Activity within an Area of Regional Interest (ARI). As a result, a Regional Interests Development Approval is required under the RPI Act prior to the commencement of works.

This report has been prepared on behalf of the applicant, Longreach Regional Council, and should be read in conjunction to the approved RIDA. This amendment application demonstrates the suitability of the proposed development amendment within its local context, as well as its compliance with the relevant provisions of the RPI Act.

1.1 The Applicant and Project Overview

Longreach Regional Council currently operates the Town Weir system on the Thomson River, situated approximately 3.5 kilometres north-west of the Longreach township. The system consists of one (1) primary weir, the Town Weir and four (4) secondary Anabranch Weirs that collectively regulate flows through the river anabranch system (Figure 1.1). Originally constructed in the 1950s by the former Thomson River Authority, the weir system plays a critical role in sustaining the region's potable water supply.

The Town Weir system forms and maintains the Longreach Waterhole, which functions as the principal freshwater storage for the Longreach community. When at capacity, the waterhole extends for roughly 13 kilometres between the Town Weir and the upstream Fairmount Weir, with an estimated storage volume of approximately 3,300 megalitres (ML). This system allows Council to manage and stabilise water availability during both dry periods and variable flow conditions.

LRC currently holds Water Access Licence 604058 and 609661, which provides a nominal entitlement of 3,300 ML per annum from the Thomson River system. Water retained within the upstream weirs is released as required to supplement town water supplies, ensuring consistent access to potable water for domestic and municipal use. In addition, Council holds Water Interference Licence 609661 under the Water Plan (Cooper Creek) 2011, authorising the storage and management of water along the Thomson River specifically for domestic purposes. Both these licences are under application for amendment to support the upgrades to the weir.

In recent years, significant flood events have impacted infrastructure integrity within the system. Anabranch Weir 4 experienced structural failure during flooding in 2020, followed by the failure of Anabranch Weir 3 during subsequent flood events in 2022. These incidents necessitated targeted upgrades by Council to restore functionality and reinforce the weirs to withstand future hydrological pressures. These repairs form part of Council's ongoing commitment to maintaining a reliable and resilient water supply network for the Longreach region.

The approved RIDA requires amendment due to changes to the plans for the project and supporting temporary infrastructure.

1.2 Property and Tenure Details

The subject land comprises the Thomson River Riparian Corridor, Lot 2 SP123565 and Lot 4 SP232181, located within the LRC Local Government Area (LGA). Under the Longreach Regional Planning Scheme 2015, the land is zoned Rural and is situated within a SEA-DP under the Areas of Regional Interest framework. The proposed development, centred on the Town Weir, is located approximately 4.5 kilometres north-west of the Longreach town centre. The riparian corridor is primarily utilised for water storage associated with the Longreach Waterhole, while land outside the corridor supports agricultural activities and contains structures ancillary to ongoing site operations.

The key characteristics of the subject land, surrounding locality, and designation footprint are illustrated in Figure 1.1.

Legend

Weir Locations

- Town Weir
- Anabranch Weir
- Roads and Tracks
- Cadastre (DCDB)

Watercourses

- Thomson River

Queensland_waterways_for_waterway_barrier_works

- 4

Anabranch Weir 4
Anabranch Weir 3
Anabranch Weir 2
Anabranch Weir 1
Town Weir
Thomson River
Thomson River Road
River Farms Road
Old Winton Highway
Apex Park Road
Old Winton
101SP340142
4SP232181

Winton
Subject Site
Longreach
Barcaldine
Blackall
Jundah

GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 1.1
Site context

REV.	DETAILS	DATE
A	Client Issue	28/11/2025

DRG REF. GLC00322_0007-001-SKE-001-A

DRAWN: AF | CHECKED: RC
APPROVED: RC | DATE: 28/11/2025

GENERAL NOTES:

0 100 200 300 400 m

CRS: GDA94 / MGA zone 55 (EPSG:28355)

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1.3 Land Use Considerations

The surrounding land predominately consists of agricultural uses. Land along the southern bank of the Thomson River also consists of community facilities, including Apex Riverside Park, as well as small-scale commercial and residential development.

1.3.1 Easements and encumbrances

The designation footprint is not burdened by, nor does it benefit from, any easements. It is noted that Lot 4 SP232181 is burdened by an easement, however this does not impact the proposed designation footprint.

1.3.2 Transport networks

Access to the weirs is provided from the surrounding local and State road network, with final access provided by unnamed access tracks within the Town Common. There are no public passenger transport services provided to the weirs.

1.3.3 Utility services

The water intake in the Town Storage, located on the footbridge adjacent Apex Park (the Old Winton Highway), is connected to the LRC's water supply infrastructure.

2. PROPOSED AMENDMENTS

Since the RIDA was granted for the proposed disturbance areas associated with the construction of the Thomson River weirs, further planning and refinement of construction methodologies have identified the need for additional disturbance, as well as updates to remove the fish passage condition to align with the MID requirements. These refinements are necessary to ensure safe, efficient and environmentally responsible delivery of the works.

The additional disturbance relates primarily to the expansion of the existing footprints of the town weir and Anabranch Weirs 3 and 4 (Table 2.1 and Table 2.2). This expansion is required to facilitate the installation of temporary coffer dams, which will provide dry, stable work zones that are essential for undertaking the structural upgrades. The coffer dams are a critical component of the construction methodology, enabling works to be completed safely while minimising impacts on river flows and surrounding habitats. All coffer dams are temporary in nature and will only be in operation during critical parts of construction of the permanent weirs. Upon completion of the permanent weirs the coffer dams are planned to be removed to return the site similar to its existing status.

Coffer dams for anabranch 1 and 2 weirs are expected to be contained withing the existing approved disturbance limits and no additional area approvals are required.

To reduce environmental impact, the three coffer dams will be constructed using suitable materials sourced from an already disturbed laydown area within the project site. This approach avoids disturbance of new areas and is consistent with methods that have previously been applied successfully during works on the weirs.

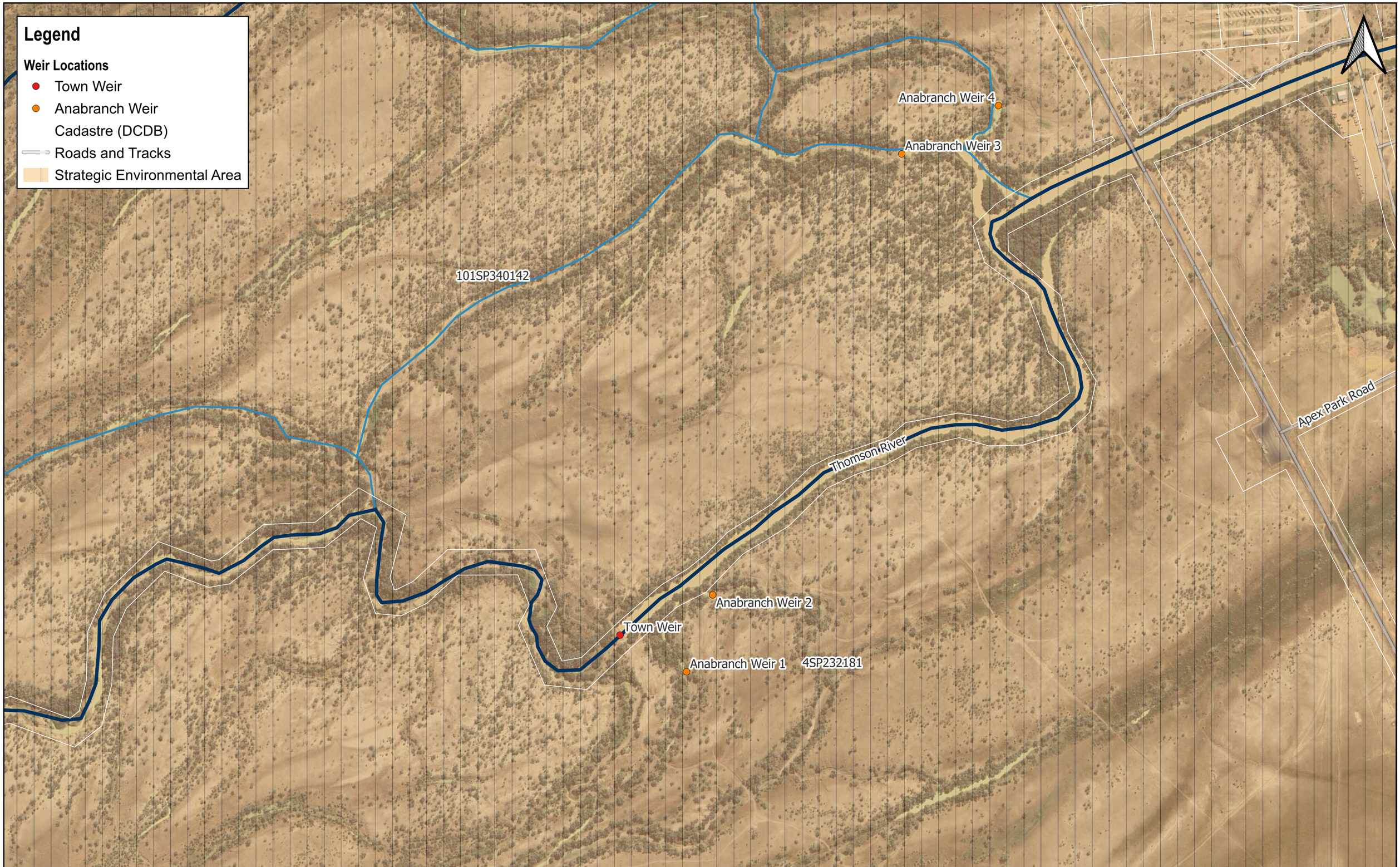
These design and construction amendments require updated RIDA conditions, as detailed in Sections 2.1–2.5 of this report. **Figure 2.1** provides an overview of all proposed activities within the SEA, while Figure 2.2 and Figure 3 illustrate the locations and extents of the proposed boundary coffer dams and the town weir fish passage. These figures provide a representation of the works and associated disturbance areas, supporting the rationale for the revised conditions.

TABLE 2.1: WEIR DISTURBANCE AREAS

Boundary Area	Existing RIDA Area (m2)	Proposed (m2)	Change (m2)	% increase
Town Weir	4155	4768	613	15%
Anabranch 1	2738	2738	no change	0%
Anabranch 2	2806	2806	no change	0%
Anabranch 3	3488	4132	644	18%
Anabranch 4	3289	3616	327	10%
TOTAL	**16476**	**18060**	**1584**	**10%**

TABLE 2.2: COFFER DAM DISTURBANCE AREAS

Boundary Area	Existing RIDA Area (m2)	Proposed (m2)
Town Weir Coffer Dam	0	1591
Anabranch Weir 3 - Coffer Dam	0	689 (area merged with Anabranch 3) See Figure 2.4
Anabranch Weir 4 - Coffer Dam	0	684
TOTAL	0	**2964**



GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 2.1
Proposed Activities Within Strategic Environmental Area

REV.	DETAILS	DATE
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DRG REF. GLC00322_0007-001-SKE-001-A

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0 100 200 300 400 m

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2.1 Table 1: Approved regulated activity – water storage (dam)

Table 2.3 of the approved RIDA identifies the authorised regulated activities and their associated disturbance areas. The following amendments are required to update the table:

- An increase in native vegetation clearing in areas adjacent to the weirs to facilitate construction activities
- An increase to the town weir and anabranch 3 and 4 boundary area to accommodate the revised construction footprint and three coffer dams (3).
- A corresponding increase in the overall disturbance area resulting from the above changes

TABLE 2.3: APPROVED REGULATED ACTIVITY – WATER STORAGE (DAM) AMENDMENT

Area of regional interest	**Location**	**Components of Regulated activity – water storage (dam)**	**Area of disturbance (hectares)**
Channel Country Strategic Environmental Area (designated precinct)	Lot 101 SP340142 (formerly Lot 2 SP123565) and Lot 4 SP232181	Clearing of native vegetation adjacent to the weirs for construction purposes	~~1.64~~ 1.81
		Temporary laydown/storage areas in previously disturbed areas devoid of 'structural' vegetation	~~1.83~~ 2.12
		Vehicular access via existing roads and tracks	0.00
		Total Disturbance Area	~~**3.47**~~ 3.93

Legend

- Construction Buffer
- Approved Temporary Laydown Areas

Thomson River

Anabranch Weir 2

Coffer Dam #1

101SP340142

Town Weir

4SP232181

Anabranch Weir 1

GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 2.2
Proposed Coffer Dam #1 and Additional Town Weir Disturbance

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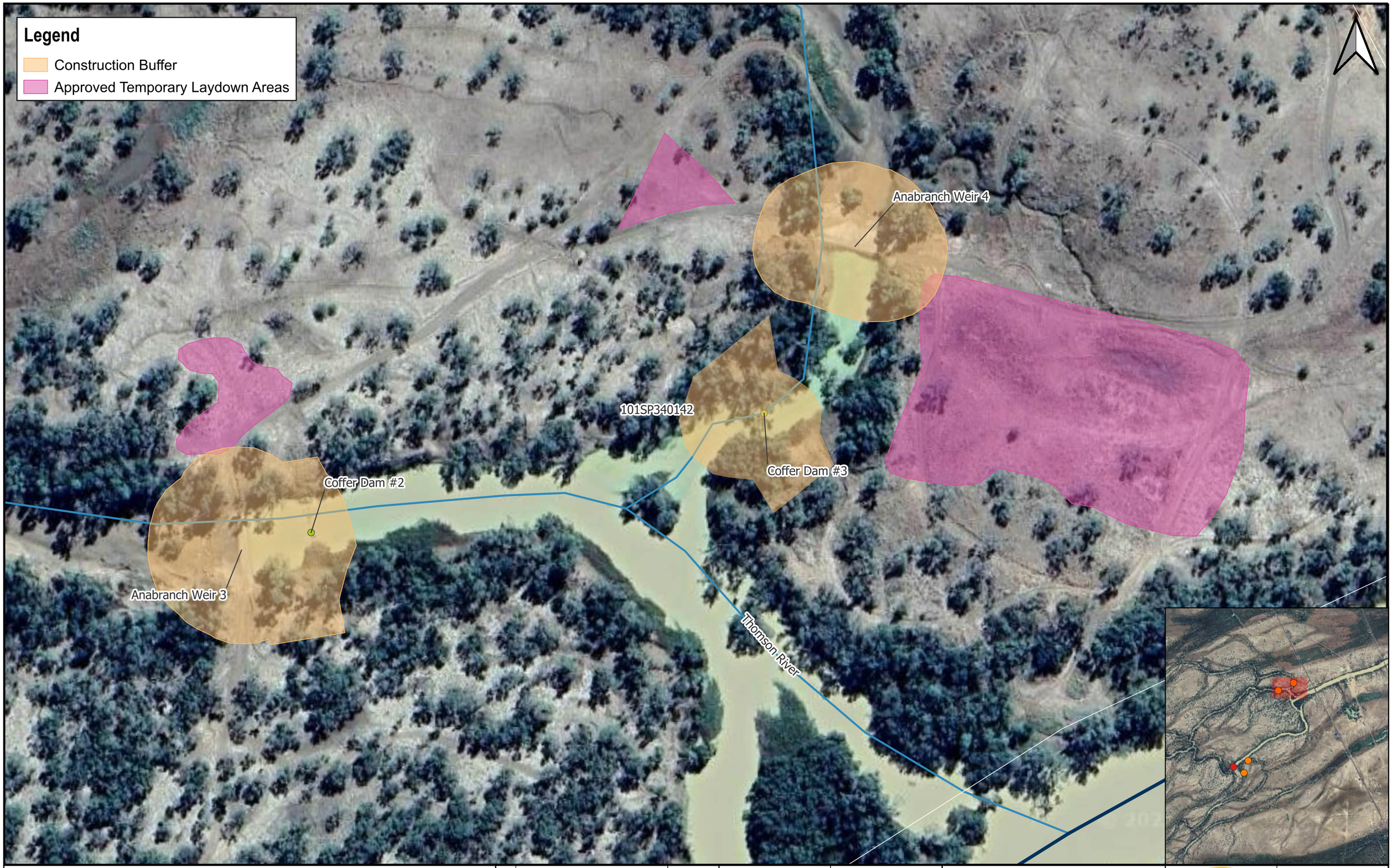

GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 2.3
Proposed Coffer Dams #2 and #3

REV.	DETAILS	DATE
A	Client Issue	28/11/2025

DRG REF. GLC00322_0007-001-SKE-001-A

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2.2 Regional interest conditions – Condition 1

Condition 1 is reproduced in Table 2.4., the information associated with the area of disturbance for the footprint has been amended.

TABLE 2.4: CONDITION 1 AMENDMENT OF THE APPROVED RIDA

Condition number	Condition	Timing for Condition
Development footprint, full supply level and drawings		
1.	Development authorised under this approval for the Thomson River Weir Project is limited to a total footprint of ~~3.47~~ 3.93 Ha, including up to ~~1.64~~ 1.81 Ha of construction disturbance footprint, and up to ~~1.83~~ 2.12 Ha of temporary laydown areas, as shown in Figure 1-1 Project layout prepared by ~~NGH Pty Ltd dated 26/06/2024~~. Engeny Australia Pty Ltd dated 02/12/2025. The total footprint excludes existing access tracks which may be utilised.	At all times.

2.3 Regional interest conditions – Condition 2

Condition 2 is reproduced in Table 2.5, the information associated with the area of disturbance for the footprint has been amended.

TABLE 2.5: CONDITION 2 AMENDMENT OF THE APPROVED RIDA

Condition number	Condition	Timing for Condition
Development footprint, full supply level and drawings		
2.	No clearing of vegetation is permitted outside of the ~~1.64~~ 1.81 Ha construction disturbance footprint as shown in Figure 1-1 Project layout prepared by NGH Pty Ltd dated 26/06/2024. NOTE: "Clearing of vegetation" means to remove, cut down, ringbark, push over, poison or destroy vegetation in any way including by burning, or lopping a tree. Clearing of vegetation excludes removal or treatment of environmental weeds.	At all times.

2.4 Regional interest conditions – Condition 7

As the fish passages were removed under an approved exemption, Condition 7 (Table 2.6) is no longer applicable and has therefore been removed from the RIDA requirements.

TABLE 2.6: CONDITION 7 AMENDMENT OF THE APPROVED RIDA

Condition number	Condition	Timing for Condition
~~**Fish Passage**~~		
~~7.~~	~~The upgraded Town weir and anabranch weirs 3 and 4 are to be designed and constructed to incorporate fish passage measures to enable fish movement between the upstream and downstream sections.~~	~~At all times~~

2.5 Regional interest conditions – Condition 11

TABLE 2.7: CONDITION 11 AMENDMENT OF THE APPROVED RIDA

Condition number	Condition	Timing for Condition
Construction management measures		
7.	A Vegetation and Fauna Management Plan must be prepared and implemented. The Vegetation and Fauna Management Plan must: a) Include procedures that ensure no trees or vegetation located outside of the ~~1.64~~ 1.81 Ha construction disturbance footprint are damaged or removed during construction; and b) Include procedures for pre-clearing surveys for the identification of fauna species that may be impacted and fauna breeding sites; and c) Include procedures that specify the required actions in the event that fauna breeding sites are identified, or fauna is adversely impacted or injured by clearing or construction activities; and d) Identify appropriate mitigation measures to reduce the likelihood of impacts to fauna species, including but not limited to: I. a requirement that site activities must be carried out only during daylight hours; and II. a requirement that an appropriately trained fauna spotter/catcher be present during all vegetation clearing, habitat removal, excavation works, and other construction activities identified to potentially impact fauna; and III. a site speed limit that applies to all vehicle movement; and IV. a requirement that vehicles and machinery must not traverse outside of established access tracks, the construction disturbance footprint, or temporary laydown areas; and e) Identifies threats to environmental values through direct and indirect disturbance, ecological degradation processes, erosion or contamination from stormwater run-off, and environmental weeds; and f) Outlines mitigation measures and management actions required for the protection of Matters of State Environmental Significance (MSES) regulated vegetation and habitat from direct and indirect impacts from the development; and g) Identifies proposed biosecurity control measures and post-construction management actions required to prevent the spread of invasive plant species within the development area. h) A requirement for all personnel onsite to undergo site inductions in which personnel are made of aware their obligations and responsibilities under the Vegetation and Fauna Management Plan.	At all times during construction works.

2.6 Attachment 1 – Approved Plans

The proposed amendments to the weir disturbance areas and the inclusion of disturbance associated with the temporary coffer dams, updates to the approved plans are also required (Appendix D – Figure 1-1). The approved project layout plan must be revised to accurately reflect the expanded weir footprints and the locations of the proposed coffer dams. Figure 1.1 Project Layout of the approved RIDA is required to be amended to incorporate these additional disturbance areas and ensure the documentation aligns with the updated construction methodology.

3. ENVIRONMENTAL ATTRIBUTES

The relevant environmental attributes of the project area are summarised in the following subsections to provide a clear understanding of the existing environmental values and sensitivities that may be influenced by the proposed additional disturbance.

Subsections 3.1 - 3.10 describe the existing environmental conditions, while Section 4 of this Report outlines the potential impacts of the proposed changes and the corresponding mitigation measures.

3.1 Climate

The Mitchell Grass Downs (MGD) bioregion is characterised by desert, grassland, and subtropical climatic zones. Areas within the desert climate zone are hot and characterised by a winter drought, areas within the grassland climate are hot and persistently dry, while the subtropical areas experience moderately dry winters. The Central Downs subregion encompasses both desert and grassland climate zones, whereas the Southern Wooded Downs subregion experiences desert, grassland and subtropical climatic conditions.

Average annual rainfall near the study area is approximately 430.6 mm, based on the sum of mean monthly values from the Longreach region climate dataset (recorded at Longreach Aero, Bureau of Meteorology [BoM] Station 036031). Rainfall is strongly seasonal, with the highest monthly averages occurring in January (75.8 mm) and February (76.3 mm), and the driest conditions observed during winter, particularly August (10.9 mm). A summary plot of rainfall and temperature for the area is provided in Figure 3.1 (BOM, 2025).

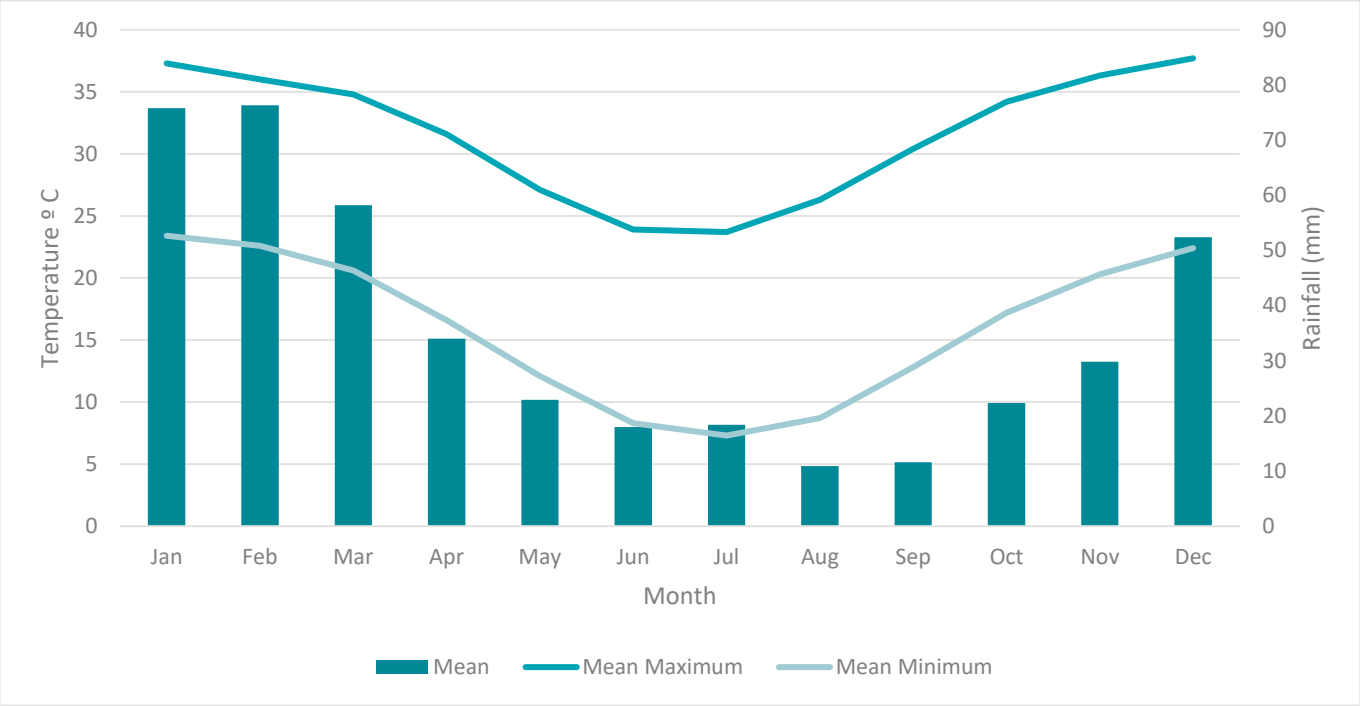

Figure 3.1: Average Monthly Rainfall, Minimum and Maximum Temperatures for Longreach Aero

3.2 Geomorphic Processes

The Thomson River system is already subject to natural erosion, sediment transport and deposition processes, and the temporary works will not alter the existing geomorphic regime beyond short-term, localised disturbance within the construction footprint. The coffer dams are planned to extend within the existing riverbanks and will be fully removed following completion of works, allowing natural processes to resume without long-term impact. Reference is made to the Aquatic Ecology Assessment (NGH, 2023b), which provides further assessment of water quality, sediment dynamics, and potential short-term construction impacts.

On this basis, it is considered that the proposed temporary works will not compromise the preservation of the environmental attributes of the SEA with respect to geomorphic processes.

3.3 Soils

Australian soil classification mapping on Queensland Globe (Department of Resources, 2023) indicates the proposed project areas are all located on "Landsborough-Kendall" soil type, described as seasonally flooded alluvial plains of braided rivers and streams.

3.4 Land Class

The proposed additional disturbance areas and surrounding areas are mapped as agricultural land class C2, which is described as pasture land suitable for grazing native pastures, with or without the introduction of pasture, and with lower fertility soils than class C1 (Department of Resources, 2023).

3.5 Contaminated Land

In consideration of the land uses surrounding the proposed project disturbance areas (i.e. primarily undisturbed floodplain), and a desktop review of the historical aerial imagery, it is considered unlikely any contamination or historical contaminating activities are present within proposed additional disturbance areas (Department of Resources, 2023).

3.6 Hydrological Processes

The Thomson River is an intermittently flowing river, forming north of Muttaburra and flowing in a southerly direction. Over its length, the Thomson River is joined by 41 named tributaries before it meets the Barcoo River near Windorah and forms Cooper Creek. Flooding of Cooper Creek is common during the wet season (October - March); however, during the dry season (April – September), channels can become restricted to isolated lagoons and claypans. The Thomson-Barcoo-Cooper catchment drains towards the Lake Eyre basin; the largest endorheic basin in Australia.

The Thomson River waterways within the Copper Creek Basin are extensive dryland river systems, with consistently low gradients, internal drainage instead of flowing to the sea, wide floodplains (reaching up to 80 km in width [Cooper Creek]), anastomosing channels, significant transmission losses, and extreme flow variability.

The Thomson River is a perennial multithread anastomosing waterway that drains the Alma Range and part of the Great Dividing Range. The main channel of the Thomson River is mapped as stream order eight and a major waterway for fish passage under current spatial layers; however, the river experiences high variability in flows and water levels. Following summer monsoon rains, the Thomson River flows before water evaporates and forms a series of billabongs; although under exceptional rainfall, water can drain into Lake Eyre (NGH, 2023b).

3.7 Surface Water

3.7.1 Environmental Values

The *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* (EPP Water) and the EP Act provide a framework for:

- Establishing EVs and management goals for Queensland waters
- Deciding the water quality objectives (WQOs) to protect or enhance those EVs
- Listing the identified EVs, management goals and WQOs under Schedule 1 of the EPP Water.

The development is located within the Thomson River sub-basin (0032), which forms part of the Cooper Creek basin (003). Environmental Values (EVs) and Water Quality Objectives (WQOs) have not been established for the Thomson River sub-basin under the Environmental Protection (Water and Wetland Biodiversity) Policy.

In the absence of defined EVs and WQOs, the Australian and New Zealand Default Guideline Values (DGVs) for slightly to moderately disturbed ecosystems in south-central Australia representative of low-rainfall environments and considered the most applicable benchmarks for temporary inland waters in central Queensland, have been applied for the purposes of this MID Proposal and the Aquatic Ecology Assessment (NGH, 2023b).

3.7.2 Water Quality

Water sampling undertaken by NGH in the vicinity of the Project found quality was moderate to good, likely influenced to some degree by surrounding land-use and local geomorphology, which is characteristic of a moderately disturbed ecosystem. Surface water of waterways

and wetlands within the vicinity of the Project was highly variable, with spatial heterogeneity in physio-chemical stressors and toxicants typical of ephemeral systems in the region.

Water quality spot-measurements indicate surface waters were mostly fresh (low salinity), moderately oxygenated (dissolved oxygen saturation), circum-neutral pH, highly turbid, elevated in nutrients (both nitrogen and phosphorous sources) and with background levels for dissolved Al and Cu elevated above respective DGVs (ANZG, 2018) (NGH, 2023c).

3.8 Vegetation Communities

3.8.1 State

Queensland State Regional Ecosystem (RE) mapping available on Queensland Globe (Department of Resources, 2023) indicates that the Project area and its surrounds comprise a mosaic of Regional Ecosystems (REs), including 4.3.4x1, 4.3.14, 4.3.4x2e, 4.3.24a and 4.3.11b (Table 3.1). Short descriptions of these REs are provided in Table 6, with their spatial distribution illustrated in Figure 3.3. No Endangered or Of Concern REs are mapped within the Project area. All vegetation within the Project footprint and surrounding areas is classified as Category B on the regulated vegetation management map (Figure 3.32). Additionally, no essential habitat (MSES) is mapped within the Project area.

TABLE 3.1: STATE-MAPPED REGIONAL ECOSYSTEMS IN THE PROJECT AREA

RE	VM Act class	Short description
4.3.4x1	Least Concern	*Eucalyptus coolabah* low open woodland, commonly with *Acacia stenophylla, Acacia cambagei* and *Atalaya hemiglauca*. A sparse shrub layer may occur. The ground layer is tussock grasses. Occurs on channel fringes in broad, braided alluvial systems in Cretaceous mudstone and Tertiary clay landscapes. Cracking clay soils. Riverine.
4.3.4x2e	Least Concern	*Eucalyptus coolabah* woodland to low open woodland, occasionally with *Acacia cambagei, A. tephrina* and *A. stenophylla*. A shrub layer may occur, including *Eremophila bignoniiflora* and *Duma florulenta*. The ground layer is tussock grasses. Occurs on active alluvial plains associated with major watercourses in broad clay landscapes in the east of the bioregion. Cracking clay soils. Not a Wetland.
4.3.11b	Least Concern	*Eucalyptus coolabah* usually predominates forming a distinct but discontinuous upper canopy layer. *E. camaldulensis* is conspicuous in sandy or gravelly banks. Waterholes on major rivers. Riverine.
4.3.14	Least Concern	*Astrebla lappacea* tussock grassland to closed tussock grassland, commonly with *A.squarrosa*. Other species include *Aristida latifolia, Iseilema vaginiflorum, Panicum* spp. A number of forbs are present and increase in density after winter rainfall. Emergent trees are rare, including *Acacia cambagei* and *Eucalyptus coolabah*. Occurs on alluvial plains in clay landscapes dominated by *Astrebla* spp. Tussock grasslands. Soils are predominately deep, red, brown or grey, cracking clays.
4.3.24a	Least Concern	Seasonal swamps. *Chenopodium auricomum* dwarf shrubland to open dwarf shrubland. Occurs in closed depressions on floodplains. Soils are very deep, moderate to strongly alkaline, grey cracking clays with self-mulching or curst surface. Soils have strong coarse structure and crack widely.

Terrestrial surveys by NGH confirmed that riparian vegetation along the Longreach Town Storage is dominated by Eucalyptus coolabah, with Melaleuca trichostachya, Lysiphyllum gilvum and Acacia cambagei also present, corresponding to RE 4.3.11b, a Category B remnant vegetation type of "least concern" under the VM Act. No endangered or of concern REs were recorded. The area is mapped as MSES regulated vegetation, including "defined watercourse" and "100 m from wetland," while broader sections of the Thomson River support MSES essential habitat and habitat for special least-concern, endangered, or vulnerable fauna. These features are not in close proximity to the Town Storage. The project will directly clear up to 1.81 ha of riparian vegetation for construction of the upgraded weirs and associated works, with further clearing avoided through placement of laydown areas on already disturbed ground. Indirect impacts from the proposed 1 m increase in Full Supply Level may include increased inundation and erosion pressures, particularly along northern anabranches, although the extent of long-term impacts remains uncertain due to limited understanding of flood-tolerance thresholds for E. coolabah.

Legend

Weir Locations

- Town Weir
- Anabranch Weir

Cadastre (DCDB)

Regulated Vegetation

Regulated vegetation management

Cat. B Remnant vegetation

Anabranch Weir 4

Anabranch Weir 3

101SP340142

Thomson River

Anabranch Weir 2

Town Weir

Anabranch Weir 1

4SP232181

GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 3.2
Regulated Vegetation

REV.	DETAILS	DATE
A	Client Issue	28/11/2025

DRG REF. GLC00322_0007-001-SKE-001-A

DRAWN: AF | CHECKED: RC

APPROVED: RC | DATE: 28/11/2025

GENERAL NOTES:

0 100 200 300 400 m

CRS: GDA94 / MGA zone 55 (EPSG:28355)

LONGREACH REGIONAL COUNCIL

ENGENY

Legend

Weir Locations

- Town Weir
- Anabranch Weir
- Cadastre (DCDB)

Watercourses

- 8
- Waterway Label

Queensland_waterways_for_waterway_barrier_works

- 4

Regulated Vegetation

Regional ecosystem mapping

- Remnant (least concern)

Anabranch Weir 4
Anabranch Weir 3
101SP340142
4.3.4/4.3.14/4.3.24/4.3.11
Thomson River
Anabranch Weir 2
Town Weir
Anabranch Weir 1
4SP232181

GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 3.3
Regional Ecosystems

REV.	DETAILS	DATE
A	Client Issue	28/11/2025

DRG REF. GLC00322_0007-001-SKE-001-A

DRAWN: AF | CHECKED: RC
APPROVED: RC | DATE: 28/11/2025

GENERAL NOTES:

0 100 200 300 400 m

CRS: GDA94 / MGA zone 55 (EPSG:28355)

LONGREACH REGIONAL COUNCIL

ENGENY

3.8.2 Commonwealth

The PMST identified no threatened ecological communities (TECs) listed under the EPBC Act that could potentially occur within 2 km of each of the development area. No TEC's were recorded during the field survey (Department of Climate Change, Energy, the Environment and Water, 2025).

3.9 Fauna and Flora

3.9.1 State

A total of 94 species were identified within a 2 km radius of the central project coordinates (latitude -23.4163, longitude 144.2136) from the WildNet search area. The list is dominated by native inland fish species typical of Queensland's arid and semi-arid river systems, with no species listed as threatened under either the NCA or EPBC Acts. No taxa are identified as conservation-significant or sensitive, and all recorded species are considered widespread and characteristic of the regional aquatic environment. The limited number of sightings suggests low survey intensity rather than high species abundance. Overall, the results indicate a low ecological risk profile, with no species of conservation concern expected to constrain the proposed temporary coffer dam works (Queensland Government, 2023) (Appendix C).

3.9.2 Commonwealth

The EPBC Protected Matters search for the development area (2 km radius around each of the coffer dams) identified a moderate number of MNES, identified 14 listed threatened species and eight (8) listed migratory species, primarily birds. No threatened ecological communities, Ramsar wetlands, Commonwealth lands, or marine areas occur within the search boundary. Most species are identified as *may occur* or *likely to occur*, reflecting modelled habitat rather than confirmed presence.

One National Heritage Place was identified (Historic QANTAS Hangar in Longreach) and occurs only within the broader buffer and is not directly impacted. The search did not identify any constraints related to critical habitat, Commonwealth heritage, or listed marine areas. Overall, the MNES results indicate that while some listed species *may use* habitats in the region, there are no high-risk MNES triggers anticipated for the temporary cofferdam works, noting the lack of direct impacts to significant aquatic or terrestrial habitat (Department of Climate Change, Energy, the Environment and Water, 2025) Appendix B).

3.9.3 Wildlife Corridors

Vegetation communities along watercourses and drainage features provide important habitat and movement corridors for fauna. The proposed current tracks intersect four mapped regulated vegetation along the defined watercourse corridors identified in the Vegetation Management Watercourse and Drainage Feature Mapping for the area. However, these corridors are already subject to disturbance from the existing weir infrastructure, and the proposed works are not expected to result in any additional fragmentation or interruption. No Groundwater Dependent Ecosystems (GDEs) are mapped in proximity to the proposed disturbance areas.

3.10 Bushfire Hazard

The Project lies within a broader landscape of sparse remnant and regrowth vegetation, and riparian/floodplain vegetation. This would be classified as a "Type Three" landscape in the *Bushfire Management Overlay Technical Guide* (Department of Environmental, Land, Water and Planning, 2017). This landscape type includes the following hazards:

- The type and extent of vegetation located more than 150 m from the site may result in neighbourhood
- scale destruction as it interacts with the bushfire hazard on and close to the site
- Bushfire can approach from more than one aspect
- The site is located in an area that is not managed in a minimum fuel condition.

4. POTENTIAL IMPACTS TO ENVIRONMENTAL ATTRIBUTES

This amendment seeks approval for additional temporary disturbance required to support the updated construction methodology. The proposed changes involve additional disturbance areas of approved weirs for five (5) cofferdams, which extend beyond the currently approved disturbance areas. As such, this application considers only the increased or additional impacts associated with these temporary works.

4.1 Hydrologic Processes and Beneficial Flooding

The current approved RIDAs proposed plans involves raising the height of five (5) existing weirs and accordingly, the flood characteristics of the system are already altered. The development has been designed to ensure that raising the height of the weirs by one (1) metre will not adversely impact the flood characteristics of the system as a whole and will not hamper the flow of flood waters across the flood plain this is the same for the coffer dams as they are only temporary disturbance.

The flood impact assessment (NGH, 2023d) confirms that any increase in water level as a result of the development will be minor and inconsequential given the predicted water depth over the top of the structures during a flood event. Additionally, any increase in flow velocities downstream of the weir will also be minor and inconsequential. Given the extent of the floodplain, the temporary development of the coffer dams and increased disturbance areas of the weirs will not result in adverse flooding impacts outside of the floodplain.

The Department of Local Government, Water and Volunteers (DLGWV) agency assessment report on the RIDA was that they are satisfied that the proposed activities for the approved RIDA were unlikely to adversely affect natural hydrological processes, including channel flow, overland flow, floodplain flow paths, groundwater interactions, or beneficial flooding within the area. DLGWV has also determined that potential impacts related to erosion and scouring can be effectively mitigated through appropriate design and construction measures, and these requirements can be addressed through conditioning of any approval (DLGWV, 2025). Accordingly, the DLGWV agency assessment report for the RIDA concluded that the department is satisfied with the proposed approach and the mitigation measures outlined.

On the above basis, it is considered that the proposed increase of disturbance and temporary coffer dams will not compromise the preservation of the environmental attributes of the SEA in regard to flood characteristics.

4.2 Water Quality

The additional disturbance associated with the construction activities does not involve activities which would impact on the water quality of the system. Additionally, construction activities will be undertaken in accordance with the relevant requirements to minimise sediment runoff and water quality impacts. The Aquatic Ecology Report (NGH, 2023b) provides a detailed assessment of the existing water quality within the Thomson River and confirms that the development will not result in adverse impacts on water quality during operations.

The construction of the development will be undertaken in accordance with the (NGH, 2023c). This plan has been prepared to ensure construction activities do not result in adverse impact on water quality or environmental features in the SEA.

On the above basis, it is considered that the proposed increase of disturbance areas and the coffer dams will not compromise the preservation of the environmental attributes of the SEA regarding water quality.

4.3 Fauna and Flora

4.3.1 State

A review of Queensland's Matters of State Environmental Significance (MSES) mapping layers indicates that no mapped MSES features intersect the proposed additional disturbance of the project within the Thomson River (Department of Resources, 2023). The works are confined to a previously disturbed section of the active river channel, which does not support regulated vegetation (endangered, of concern, or essential habitat), mapped wildlife habitat, high ecological significance wetlands, MSES fauna corridors, or protected area estates. The temporary installation and removal of coffer dams will not result in long-term modification, fragmentation, or loss of any MSES values. Potential short-term impacts such as localised turbidity and minor bed disturbance are temporary and will be mitigated through best-practice construction environmental controls. Given the absence of mapped MSES features and the temporary, reversible nature of the activity, the proposed works do not trigger MSES-related offsets and are considered low risk under the Environmental Offsets Framework (NGH, 2023a).

4.3.2 Commonwealth

Based on the Protected Matters Search Tool (PMST) results and the characteristics of the additional disturbance of the approved project the action is not expected to have a significant impact on any MNES as defined under the EPBC Act. The works are confined to a small, previously disturbed section of the Thomson River and will not remove, fragment, or materially modify habitat critical to any listed threatened or migratory species. Potential MNES identified in the search are primarily wide-ranging or transient bird species, with no confirmed records and no suitable habitat features located within the disturbance footprint. No threatened ecological communities, wetlands of international importance, or Commonwealth lands are present. With standard environmental controls in place, the scale, duration, and reversibility of the activity ensure any impacts remain minor, temporary, and localised. Accordingly, the action does not meet the threshold for referral under the EPBC Act (Department of Climate Change, Energy, the Environment and Water, 2025).

4.3.3 Wildlife Corridor Function

The additional disturbance of the approved project will not further result in interference with the function of the waterway for fish and wildlife passage as it is already compromised by the current weir system. The river flows on a seasonal basis during summer monsoons, with the system resulting in a series of billabongs and waterholes during the dry season, which provide consolidated refuge for various species. On this basis, it is considered that the retention of water within the Longreach waterhole is consistent with the existing characteristics of the river and the system itself is limited in terms of fish passage outside of the wet season.

The approved development has also been designed to minimise impacts outside of the development footprint, ensuring that the upgraded weirs do not prohibit the movement of other wildlife along the corridor this approach has been continued with the proposed additional disturbance. Reference is made to the Terrestrial Ecology Assessment (NGH, 2023a) which confirm that the development will not adversely impact on the function of the SEA as a wildlife corridor.

On the above basis, it is considered that the proposed additional disturbances will not compromise the preservation of the environmental attributes of the SEA in regard to wildlife movement and management.

4.4 Vegetation Communities

The additional disturbance associated with construction activities will remain confined to areas immediately surrounding each weir. Laydown zones and temporary site facilities will be positioned within previously cleared or sparsely vegetated land to avoid further vegetation removal. While the proposed amendment to the RIDA requires a minor expansion of these areas, the works remain limited to a previously disturbed section of the active river channel that does not support regulated vegetation (endangered, of concern, or essential habitat), mapped wildlife habitat, high ecological significance wetlands, MSES fauna corridors, or protected area estates.

The temporary installation and removal of coffer dams will not cause long-term modification, fragmentation, or loss of any MSES ecological values. Short-term impacts—such as localised turbidity and minor bed disturbance—will be managed through standard construction environmental controls. Given the absence of mapped MSES features within the disturbance footprint, and the temporary and reversible nature of the proposed works, the activity does not trigger MSES-related offsets and is considered low risk under the Environmental Offsets Framework (NGH, 2023a).

Further detail is provided in the Terrestrial Ecology Assessment (NGH, 2023a), which presents a comprehensive evaluation of the potential ecological impacts during both construction and operation. The assessment confirms that vegetation loss will be minimal in the context of the broader Thomson River system and will not compromise the environmental values of the SEA.

4.5 Ecological Management

The Terrestrial Ecology Report (NGH, 2023a) confirms that vegetation clearing and environmental impacts associated with the construction of the development are only minor and inconsequential in nature and will not adversely impact on the overall Thomson River system and the SEA. Further to this, construction activities will be undertaken in accordance with the Construction Environmental Management Plan, attached at Appendix G. On this basis, it is considered that the proposed construction activities will not result in adverse impacts on the surrounding environment.

Operation of the proposed weirs will not result in adverse impacts on the environment which would require specific operational management or mitigation measures. Any maintenance works, required to ensure the safety of the structures, will be undertaken in accordance with separate management plans, depending on the scale and location of works required which was advised by the RPI Act assessing agency – Response to application (DETSI, 2025).

These management plans will include:

- Construction management Plan
  - Vehicle Speed Limits
  - Inspection And Washdown Procedures, Weed Treatment
  - Erosion And Sediment Control Measures
- Vegetation and Fauna Management Plans (VFMP)
  - Qualified fauna spotter-catcher during clearing works
  - Revegetate/plant E. coolabah and other native flora species where tree loss is exacerbated, and natural recruitment does not occur the long-term
- Post Construction Monitoring Program (PCMP).

4.6 Fish Habitat

The upgrade to the town weir will not result in any additional disturbance to fish habitats. The MID specifies that no fish passage is required, and the condition for its removal in the RIDA further confirms that a fish passage is not necessary for this activity. A copy of the MID has been included in the appendix to this report.

4.7 Bushfire Hazard Assessment

Overall, the desktop and site assessments did not identify significant bushfire hazards at a landscape level in the Project area and surrounds, and therefore no exclusion zones have been identified (NHG, 2023e).

Project construction activities were assessed to be a potential source of ignition, with the greatest risk occurring during the bushfire season from June to December. A greatly reduced risk for ignition source/exacerbation from Project construction would be likely if the following recommendations are applied:

- Project equipment/material and structures (e.g. temporary site offices), as well as construction activities (e.g. hot works) will be located with established APZs/adequate buffers
- Building and structures on site are generally provided in non-combustible material and do not present a significant fire risk.

Overall, vulnerability and tolerability of the Project to bushfire hazard will be reduced through design and management of risk within the Project area by the construction contractor. This will be achieved through assessment of greatest hazards in the landscape, likely bushfire scenarios, and through construction and siting to minimise bushfire hazard from the landscape.

It is expected that following detailed design of the Project, the chosen construction contractor can use this Preliminary Bushfire Hazard Assessment in identifying suitable locations for worksites/laydown areas, and temporary site offices and structures.

5. REGIONAL PLANNING INTERESTS REGULATION 2014 ASSESSMENT CRITERIA

Schedule 2, Part 5 of the RPI Regulation provide criteria for the assessment or decision of the RPI application. The required outcome and prescribed solutions are detailed below in Table 5.1. This table provides a summary of the details described in this project against the assessment criteria.

TABLE 5.1: CRITERIA FOR ASSESSMENT OR DECISION IN A SEA

Schedule 2 Part 5 of the RPI Regulation	Response
(14) Required Outcome	
The activity will not result in a widespread or irreversible impact on an environmental attribute of a strategic environmental area.	The proposed activities will not result in widespread or irreversible damage to the Part 3, environmental attributes listed in s9 of the RPI Regulation for the Gulf Rivers SEA as described in Sections 4.1-4.9 of this report (and summarised in the response components of this table, below).
(15) Prescribed Solution	
1) The application demonstrates either— a. the activity will not, and is not likely to, have a direct or indirect impact on an environmental attribute of the strategic environmental area; or b. all of the following— i. if the activity is being carried out in a designated precinct in the strategic environmental area—the activity is not an unacceptable use for the precinct; ii. the construction and operation footprint of the activity on the environmental attribute is minimised to the greatest extent possible; iii. the activity does not compromise the preservation of the environmental attribute within the strategic environmental area; iv. if the activity is to be carried out in a strategic environmental area identified in a regional plan—the activity will contribute to the regional outcomes, and be consistent with the regional policies, stated in the regional plan.	(15)(1)(a) this application addresses the requirement of section (15)(1)(b). (b) (i) The proposed activities will not be carried out in a designated precinct and also do not include any of the unacceptable uses listed in Schedule 2 Part 5 s15(2). (ii) Extensive desktop and preliminary investigations were conducted during the application phase for the current RIDA. This included: The development has been designed to minimise the footprint of the activity, noting that the increased storage area does not exceed the high water bank of the Thomson River and accordingly, will not result in additional impacts on the attributes of the SEA. (iii) The proposal involves upgrades to existing water storage infrastructure to increase the storage capacity of the Longreach Waterhole. The development has been designed to ensure it does not result in additional direct or indirect impacts on the attributes of the SEA. Reference is made to the Aquatic and Terrestrial Ecology Reports attached at Appendices D & E and Section 4.2.1 of the RIDA supporting Information (iv) The subject land is located within a Strategic Environmental Area – Designated Precinct under the Central West Regional Plan. Strategic Environmental Areas are identified due to their environmental attributes for the area. In this case, the Strategic Environmental Area consists of the Thomson River and surrounding flood plain. The SEA associated with the subject land forms part of the Channel Country Strategic Environmental Area (CC-SEA) as identified at Part 3 of the Regional Planning Interests Regulation 2014 (RPI Regulation) The activity will contribute to the regional outcomes and be consistent with the regional polies stated in the regional plan.
2) The following are unacceptable uses for a designated precinct in a strategic environmental area –	The approved development involves a “water storage (dam)” use. In accordance with Prescribed Solution (2), the development is considered an unacceptable use.

Schedule 2 Part 5 of the RPI Regulation	Response
(a) if the designated precinct is in the Cape York strategic environmental area – a mining resource activity; (b) if the designated precinct is in the North Queensland strategic environmental area – a resource activity; (c) open cut mining; (d) broadacre cropping; (e) water storage (dam).	Notwithstanding this, the proposed amendment involves upgrades to existing water storage infrastructure and is located in an area where water storage infrastructure cannot be located outside of the identified SEA. Accordingly, it is considered that the proposal can be considered an acceptable use in this instance.

On the above basis, it is considered that the proposed development complies with the intent sought for the Channel Country Strategic Environmental Area. Accordingly, this application and subsequent approval will ensure compliance with the outcomes sought under the Regional Planning Interests Act 2014 and will ensure the protection of the Strategic Environmental Area.

6. CONCLUSION

This application seeks an amendment to the approved Regional Interests Development Approval (RPI24/030) for the Longreach Regional Council Thomson River Weir Project, granted under section 53 of the Regional Planning Interests Act 2014. The amendment relates to the upgrade of weir infrastructure along the Thomson River to improve the storage capacity of the Longreach Waterhole.

The proposed amendment involves minor additional disturbance within the approved weir infrastructure areas to accommodate construction, including three additional temporary coffer dams. The amendment is minor in nature and is expected to have minimal additional impact on the surrounding areas, with measures in place to minimise effects on nearby ecological features.

Having regard to the matters outlined in this report, it is recommended that DSDILGP support this application for a Development Permit for a Regional Interests Development Approval. The proposal warrants approval, subject to the imposition of reasonable and relevant conditions.

7. QUALIFICATIONS

(a) In preparing this document, including all relevant calculation and modelling, Engeny Australia Pty Ltd (Engeny) has exercised the degree of skill, care and diligence normally exercised by members of the engineering profession and has acted in accordance with accepted practices of engineering principles.

(b) Engeny has used reasonable endeavours to inform itself of the parameters and requirements of the project and has taken reasonable steps to ensure that the works and document is as accurate and comprehensive as possible given the information upon which it has been based including information that may have been provided or obtained by any third party or external sources which has not been independently verified.

(c) Engeny reserves the right to review and amend any aspect of the works performed including any opinions and recommendations from the works included or referred to in the works if:

  (i) Additional sources of information not presently available (for whatever reason) are provided or become known to Engeny; or

  (ii) Engeny considers it prudent to revise any aspect of the works in light of any information which becomes known to it after the date of submission.

(d) Engeny does not give any warranty nor accept any liability in relation to the completeness or accuracy of the works, which may be inherently reliant upon the completeness and accuracy of the input data and the agreed scope of works. All limitations of liability shall apply for the benefit of the employees, agents and representatives of Engeny to the same extent that they apply for the benefit of Engeny.

(e) This document is for the use of the party to whom it is addressed and for no other persons. No responsibility is accepted to any third party for the whole or part of the contents of this Report.

(f) If any claim or demand is made by any person against Engeny on the basis of detriment sustained or alleged to have been sustained as a result of reliance upon the Report or information therein, Engeny will rely upon this provision as a defence to any such claim or demand.

(g) This Report does not provide legal advice.

8. REFERENCES

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APPENDIX A: MINISTERIAL INFRASTRUCTURE DESIGNATION

Prepared for the Longreach Regional Council

Ministerial Infrastructure Designation Proposal

Thomson River Weir Raising Project

Longreach, Queensland

January 2024

Project Number: 220597

nghconsulting.com.au

Document verification

Project Title:	Thomson River Weir Raising Project
Project Number:	220597
Project File Name:	220597_Thomson River Weir Raising_MID Proposal_Final V2.0

Revision	Date	Prepared by	Reviewed by	Approved by
Draft V1.0	22/06/2023	J. Flanagan	C. Englezakis	C. Englezakis
Final V2.0	8/01/2024	J. Flanagan	C. Englezakis	C. Englezakis

Executive summary

This Ministerial Infrastructure Designation proposal has been prepared on behalf of the Longreach Regional Council in support of a request to the Minister to make a new designation under chapter 2, part 5 of the *Planning Act 2016*. The designation will facilitate the delivery of the Thomson River Weir Raising Project.

The Project would involve raising of the existing weirs on the Thomson River by 1 metre. The Town Weir is located approximately 3.5 kilometres north-west of Longreach. Anabranch Weirs 1 to 4 are located in proximity to the Town Weir, on anabranches of the main Thomson River channel (Figure ES-1).

The Project aligns with the following infrastructure categories as described by schedule 5, part 2 of the Planning Regulation 2017:

19 water cycle management infrastructure

20 storage and works depots and similar facilities, including administrative facilities relating to the provision or maintenance of infrastructure stated in this part

Longreach Regional Council was advised via email correspondence dated 7 December 2023 that the Project had received endorsement to proceed as a Ministerial Infrastructure Designation. Accordingly, this proposal has been prepared in accordance with chapter 7 of the Minister's Guidelines and Rules.

Section 36(3) of the *Planning Act 2016* provides for the making of the Minister's Guidelines and Rules, which set out the process required to be implemented by Longreach Regional Council to ensure the environmental impacts of the proposal are appropriately considered, as well as prescribing necessary public consultation for the proposal (Planning Regulation 2017, section 14). These also identify, at schedule 3, the required material to be provided as part of a request for an infrastructure designation.

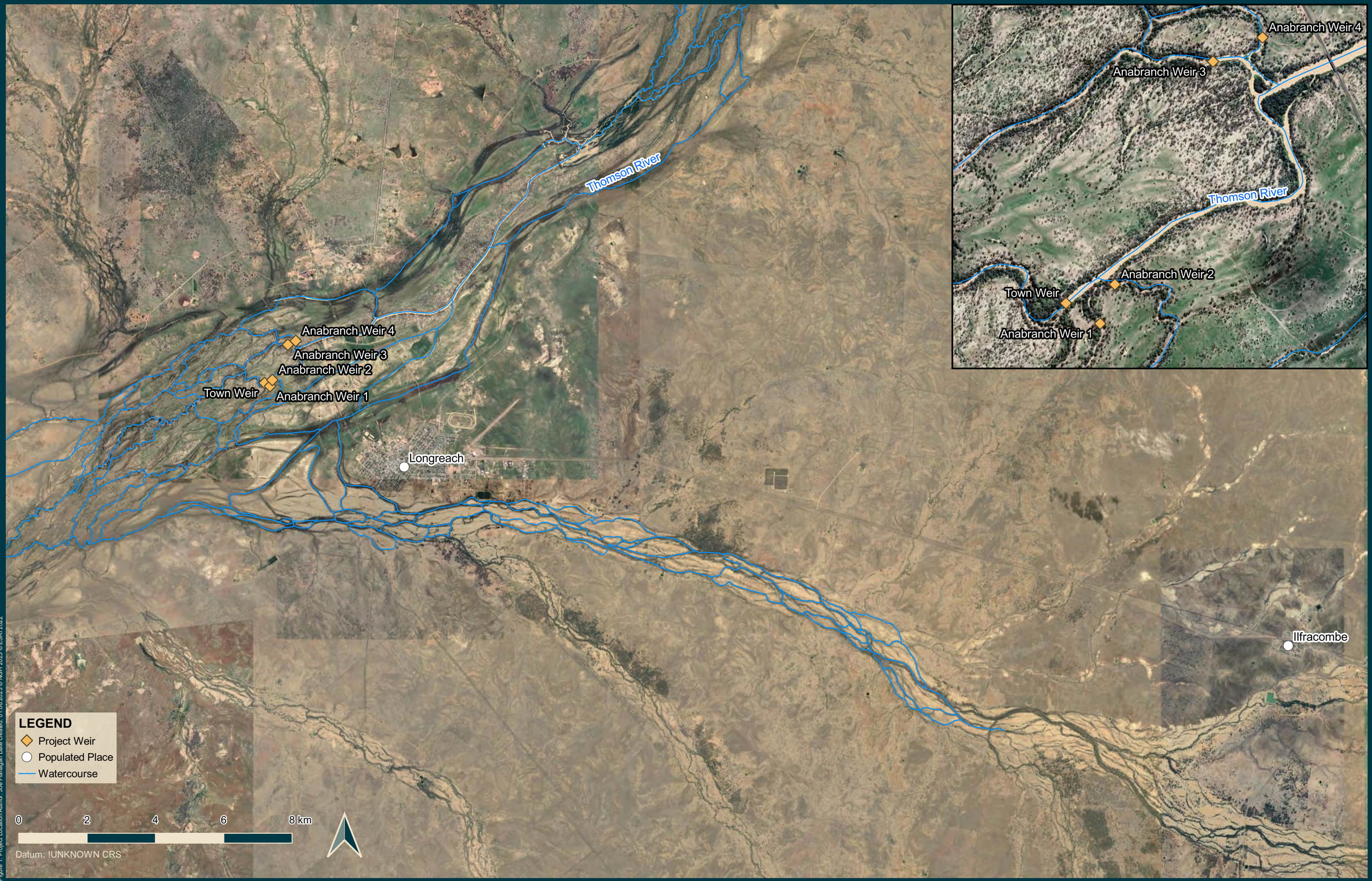
Table ES-1 summarises the required material and where it has been addressed in this proposal.

Table ES-1 Ministerial Infrastructure Designation proposal summary

Matter	Proposal details	
1. *The boundary of the entity's proposal and the cadastral description of all land affected by the proposal.* 2. *A site and locality description of the entity's proposal.*	Address of site	Not applicable
	Real property description	Crown land Lot 2 SP123565 Lot 4 SP23218
	Registered owner/tenure	State of Queensland / Reserve Longreach Regional Council / Reserve
	Local government authority	Longreach Regional Council
3. *Plans, drawing, elevations, images and perspectives of the proposal that are suitable for assessment and for communicating the scale, intensity and nature of the proposal to members of the public during consultation.*	Plans and images detailing the scale, intensity and nature of the Project are provided in Section 3 and Appendix B. A detailed description of the Project is also provided in Section 3.	
4. *Any existing uses on the premises that would be subject to the entity's proposal.*	The subject land currently consists of the existing weirs and associated Town Storage. The Project involves raising of the weirs. The footprint of the Project construction activities is illustrated on Figure ES-2, and the Project full supply level is shown on Figure ES-3.	

Matter	Proposal details
5. *Information about:*	
a) *Existing uses on adjoining sites*	The adjoining land predominately consists of rural premises utilised for grazing activities. A tourist park and community facilities are also located adjacent to the subject land upstream from the weirs.
b) *the type of uses proposed relative to the Planning Regulation 2017;*	The Project aligns with the following infrastructure categories as described by schedule 5, part 2 of the Planning Regulation 2017: 19 water cycle management infrastructure 20 storage and works depots and similar facilities, including administrative facilities relating to the provision or maintenance of infrastructure stated in this part
c) *approval(s) history for the site*	It is understood that the weirs were first constructed in the 1950's and are not subject to current development approvals. No other known approvals are associated with the land subject of the Project.
d) *The intended outcomes of any proposed amendment to uses on the site*	The proposed Ministerial Infrastructure Designation would not change the uses on the subject land, in that the weirs and Town Storage are existing uses/features which will be changed as part of the Project.
6. *Acknowledgement of any adverse impacts on surrounding properties and how these impacts are proposed to be managed.*	Section 6 provides an assessment of the potential impacts of the Project on surrounding properties and how these impacts are proposed to be managed. None of these identified impacts are considered adverse.
7. *Acknowledgement of any offsite impacts such as traffic, noise, infrastructure capacity and how these impacts are proposed to be managed.*	Sections 7 and 6.7 provide an assessment of the potential impacts of the Project on traffic and noise, respectively, and how these impacts are proposed to be managed.
8. *Acknowledgement of any construction impacts and how these impacts are proposed to be managed.*	Section 6 provides an assessment of the potential impacts of the Project, including those associated with construction, and how these impacts are proposed to be managed.
9. *Any works and land affected outside the boundary of the site that would be subject to the entity's proposal.*	The proposed designation footprint includes the construction footprint for each of the weirs, as well as the new full supply level of the Town Storage.
10. *Acknowledgement of relevant state interests and planning instruments and how they relate to the entity's proposal.*	Section 5 discusses the relevance of the various state planning interests and instruments and how they relate to the Project, including: • State Planning Policy (Section 5.4.1) • State Development Assessment Provisions (Section 5.4.2) • Central West Regional Plan (Section 5.4.3).
11. *Outcomes of any initial stakeholder engagement, highlighting if changes were made to the earlier proposal as a result of stakeholder feedback.*	Pre-lodgement advice was sought from the Department of State Development, Infrastructure, Local Government and Planning. The advice received has been taken into consideration in the design of the Project and preparation of this proposal. Preliminary consultation was also undertaken with identified stakeholders including affected landowners, relevant government departments and

Matter	Proposal details
	members, the wider Longreach community, downstream communities, Indigenous groups and special interest groups. Section 10 provides a summary of the preliminary consultation undertaken to date.
12. *A proposed consultation strategy.*	A detailed consultation strategy is provided as Appendix K of this report.
13. *Plans and technical reports to address any of the matters identified above.*	This Ministerial Infrastructure Designation proposal is supported by concept design drawings at Appendix B. Supporting technical reports are provided as Appendices C to J which identify and assess the potential impacts of the Project on relevant environmental and planning matters/interests.
14. *If the entity does not have acquisition powers under the Acquisition of Land Act 1967 and is proposing a MID over premises not owned by the entity, the entity must give assurance to the Minister that the entity will have access to the premises the subject of the proposed MID in order to construct and operate the infrastructure. This may include written landowner consent or a contractual agreement.*	The Infrastructure Entity is the Longreach Regional Council. The subject land is currently owned by the State of Queensland and Longreach Regional Council and will not require the use of acquisition powers.
15. *Sufficient information to address the requirements of section 36(1) of the Act.*	The capital cost for construction of the Project will be confirmed following detailed design and engagement of a construction contractor. The LRC is seeking funding arrangements from the Queensland Government for the Project.



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Thomson River Weir Raising Project

Figure ES-1 Project location

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Thomson River Weir Raising Project

Figure ES-2 Project layout

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Thomson River Weir Raising Project

Figure ES-3 Project full supply level

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Appendices

1. Introduction

1.1. Background

The Longreach Regional Council (LRC) operates the Town Weir system on the Thomson River, located approximately 3.5 kilometres (km) north-west of Longreach. The Town Weir system comprises the Town Weir on the main channel of the Thomson River as well as four Anabranch Weirs (the weirs) (Figure 1-1).

This Ministerial Infrastructure Designation (MID) proposal has been prepared on behalf of the LRC in support of a request to establish a new designation under chapter 2, part 5 of the *Planning Act 2016* (Planning Act). The designation will facilitate the delivery of the Thomson River Weir Raising Project (the Project).

The Project would involve raising of the weirs on the Thomson River by 1 metre (m). The Town Weir is located approximately 3.5 kilometres (km) north-west of Longreach. Anabranch Weirs 1 to 4 are located in proximity to the Town Weir, on anabranches of the main Thomson River channel (Figure 1-1).

The Project aligns with the following infrastructure categories as described by Schedule 5, Part 2 of the Planning Regulation 2017 (Planning Regulation):

19 *Water cycle management infrastructure*

20 *Storage and works depots and similar facilities, including administrative facilities relating to the provision or maintenance of infrastructure stated in this part*

1.2. Proposal structure

This MID proposal comprises a main text component (this report) and supporting appendices.

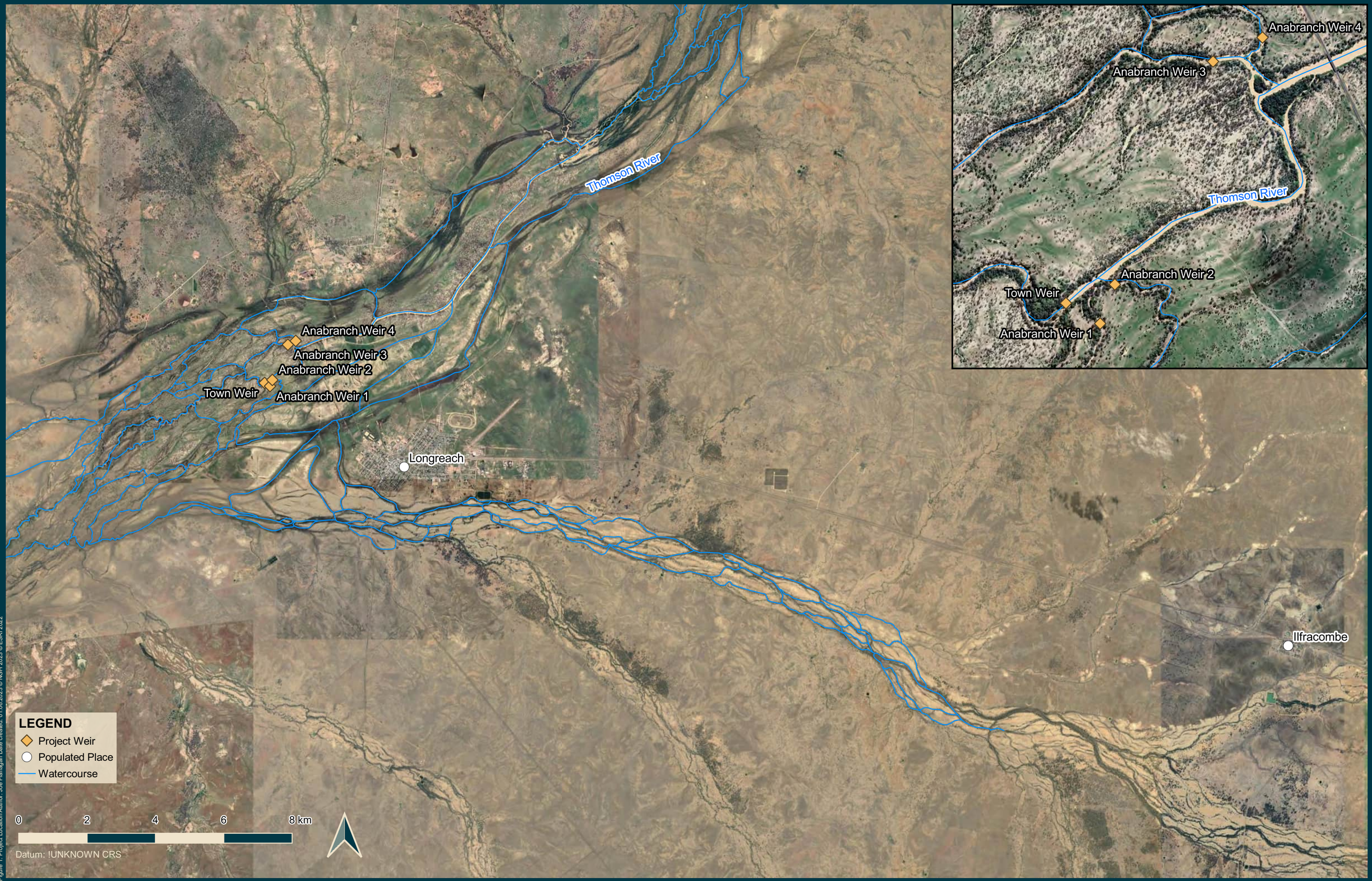
The remainder of this main text provides the following:

- Section 2 – Discusses the justification for the Project
- Section 3 – Provides a description of the Project
- Section 4 – Describes the proposed designation and associated footprint
- Section 5 – Summarises the regulatory context of the Project and proposed designation
- Section 6 – Describes the existing environment, assesses the potential environmental impacts of the Project, and details proposed avoidance and mitigation measures
- Section 7 – Assesses the potential impacts of the Project on transport networks and traffic
- Section 8 – Summarises the Aboriginal and non-indigenous cultural heritage relevant to the Project
- Section 9 – Assesses the potential socioeconomic impacts of the Project
- Section 10 – Summarises stakeholder consultation for the Project
- Section 11 – Lists the documents and guidelines referenced in Section 1 to 10.

Appendices A to N provide various supporting documentation and technical reports as follows:

- Appendix A – Water Supply Security Assessment
- Appendix B – Preliminary concept cross sections
- Appendix C – Flood Impact Assessment
- Appendix D – Aquatic Ecology Assessment

- Appendix E – Terrestrial Ecology Assessment
- Appendix F – Aboriginal Cultural Heritage Assessment
- Appendix G – Non-indigenous Cultural Heritage Assessment
- Appendix H – Traffic Impact Assessment
- Appendix I – Preliminary Bushfire Hazard Assessment
- Appendix J – Preliminary Construction Environmental Management Plan
- Appendix K – Stakeholder Consultation Plan
- Appendix L – Relevant legislative mapping
- Appendix M – State Code responses
- Appendix N - Longreach Planning Scheme strategic framework assessment.



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Thomson River Weir Raising Project

Figure 1-1 Project location

2. Project justification

The Longreach region has a hot and dry climate; securing water supplies for municipal use over the long term is a significant challenge. A safe and resilient water supply is an essential resource for Longreach, providing for the health and wellbeing of the community, opportunities for economic and community development, as well as enhancing adaptive capacity to climate change.

Sections 2.1 to 2.3 discuss the implications of the Project with regard to water demand and security, provide an analysis of Project sustainability and consider the alternative options.

2.1. Water demand and security

The LRC and the Queensland Government, through the Department of Natural Resources, Mines and Energy (DNRME) (now the Department of Resources [DoR]), established a partnership to investigate the existing security of Longreach's urban water supply system and its capacity to support current demands and future growth. Arising from this partnership, the DNRME (2019) prepared a regional water supply security assessment (RWSSA) which has been provided as Appendix A. The following sections on water demand and security have been sourced from the RWSSA.

2.1.1. Current demand

Longreach's reticulation network extends throughout the entire township and supplies water for urban purposes to approximately 2,700 people (as of June 2018). The LRC currently holds an entitlement for 2,200 megalitres per year (ML/yr) from the Thomson River. Information reported by the LRC in the Statewide Water Information Management (SWIM) database shows that the total volume of water sourced by the LRC for the reticulation network over the eight years from 2010/2011 to 2017/2018 averaged approximately 1,800 ML/yr (ranging from approximately 1,470 ML/yr to 2,040 ML/yr).

Based on the total volume of water sourced and the serviced population for each year, the average water demand from the Town Storage during this period was approximately 1,690 litres per capita per day (L/c/d). This figure accounts for residential and non-residential (commercial, municipal and industrial) water supplied from the reticulation network, plus any system losses. It also includes water use by the transient population, such as tourists and temporary workforces. Longreach hosts in excess of 300,000 visitors per annum and many temporary workers including backpackers, short term medical staff and off-farm agricultural workers, all of which places significant demands on the water supply network.

2.1.2. Future demand

The population of Longreach has generally centred around the range of 3,000–3,500 people (averaging approximately 3,270) over the period 1933 to 2018. During this time there have only been two census dates on which the recorded population was below 3,000: in 1981 and 2016. Although the population of Longreach was recently recorded to be slightly lower than this historical average, the RWSSA assumed, for the purpose of estimating future water demand, the population would return to its historical range of 3,000–3,500 people over the period 2018–2041.

Based on the average daily water demand of approximately 1,690 L/c/d, with a future population of 3,000-3,500 people, Longreach's average future water demand is estimated to be in the range of 1,850-2,160 ML/yr.

Since the development of the RWSSA and the associated statistics summarised above, there has been a number of significant developments in Longreach, including:

- A population increase of 2% per annum over the last two years (current population 3,726)
- The establishment and growth of a kangaroo meat processing works
- The establishment of a concrete products industrial plant
- The planned construction of new housing by the Queensland Government (20 housing units) and LRC (7 housing units)
- The expansion of the Longreach Hospital to include a new renal chair unit, larger pharmacy and new nursing accommodation
- The expansion of the Longreach Tourist Park to cater for more caravans
- The establishment of a new 150 site caravan park
- The completion of a sealed bitumen road from Longreach to Townsville opening up a new drive tourism route.

There is also expected to be more general future residential, commercial and industrial growth in Longreach, including large subdivisions. It is expected these developments will create additional demand beyond that contemplated in the RWSSA.

2.1.3. Climatic variation

Queensland's future climate is projected to be warmer and drier, with increased evaporation and a potential increase in the annual and inter-annual variability. These same trends are also projected for the Longreach LGA. Additionally, under an unchanged greenhouse gas emission scenario, the projected climatic changes for Longreach indicate that by 2050 seasonal variations may include (DNRME, 2019):

- slightly wetter summers, with drier winter, autumn, and spring
- warmer temperatures for each season (average, minimum, and maximum)
- higher evaporation rates for each season.

The *Queensland State of the Environment Report 2020* (DES, 2021) states that the evaporation rate for Longreach is 3,037 mm per annum. During an extended dry season, this evaporation severely depletes the available water in the Town Storage. However, there is little understanding of the quantitative effects of evaporation on the Town Storage, particularly when considered in conjunction with future climatic variability.

Urban water demand in Longreach varies between years and within each year, depending on various factors including climatic conditions such as rainfall, with higher demand usually occurring during hotter, drier periods. During extended dry periods, water levels in the Town Storage may become low and, as a result of subsequent water restrictions, water use may be lower than it otherwise would have been. The future water demand estimation above (1,850-2,160 ML/yr) is therefore conservative, in that it adopts historical data with periods of lower water use during water restrictions, and does not account for future climatic variability, which could increase the frequency and duration of water restriction periods (DNRME, 2019).

There is some uncertainty in respect of the long-term implications of climate change on future water demand and security in Longreach. However, there is a high degree of confidence that climate variability will increase, and rural communities will experience reduced rainfall and more frequent, and prolonged, drought (Department of Regional Development, Manufacturing and Water [DRDMW], 2021; Paxton, 2021; Phelps and Kelly, 2019). This emphasises the need for the Project to ensure a secure and reliable water supply for the people of Longreach.

2.1.4. Water security

Historical modelling of the Town Storage's water supply levels was undertaken for the RWSSA to estimate the frequency at which the storage fell below its minimum operating volume, based on future water demand estimates, at the current height of the existing weirs (i.e. without the Project). This modelling found that, at a demand of 2,200 ML/yr (representing Council's current allocation from the Town Storage), with restrictions in place, the storage would have fallen below its minimum operating volume during one year (1902–1903), for approximately 4.5 months. Without restrictions in place, the Town Storage would have fallen below its minimum operating level on three occasions, with one of these lasting longer than six months (and one of the other occasions lasting longer than one month).

Given Longreach's average future water demand would be in the range of 1,850-2,160 ML/yr (Section 2.1.2), which nears the LRC's current allocation as modelled above, it is likely that without the Project, there is a high likelihood of the Town Storage falling below its minimum operating volume in the future, even with restrictions in place. Further, the frequency and duration at which the Town Storage (without the Project) falls below its minimum operating volume may be exacerbated by the potential future impacts of climate change and its effect on the severity and duration of droughts.

The Project would not only reduce the likelihood that the Town Storage will fall below its minimum operating volume in future, but also the frequency, duration and severity of water restrictions. For example, the Project would increase water security (i.e. keep the Town Storage above its minimum operating volume) for approximately 5 months beyond the existing storage volume, based on an average demand of 6 ML/day.

2.2. Sustainability

The *Longreach Regional Council Corporate Plan 2017-2027* (Corporate Plan) identifies the LRC's commitment to a quadruple bottom line approach that seeks to achieve sustainability through the protection and enhancement of social, cultural, economic and environmental matters. It is expected that the Project will have numerous benefits that support a vibrant economy, community development and enhance climate adaptability. Protecting environmental values and supporting sustainable natural resource use are also important outcomes sought for the region.

Water security provides many benefits, enabling towns and regions to become more (CRCWSC, 2021):

- Resilient – able to withstand heatwaves, drought and warming
- Sustainable – increased capacity to conserve biodiversity, public health and conservation of natural resources
- Productive – greater efficiency in the use of resources, services and distribution of benefits to the community; supporting economic development
- Liveable – protecting green and blue spaces for the community and the environment.

Reduced water supply, particularly in regional and rural areas, has many impacts on public health, the environment and the economy (DRDMW, 2021).

2.2.1. Liveability

Water security is critical to maintaining Longreach's strong and unique identity, sense of community, and social and economic development (LRC, 2017). Establishing improved water supply underpins the LRC's strategic directions in respect of community services and infrastructure provision, recognising that water reliability supports future development, social networks and the longevity of rural communities (Paxton, 2021). Lester et al (2022) characterise the social impacts of drought as:

- Employment and financial constraints

- Outmigration
- Reduced access to education and training
- Health and wellbeing
- Uncertainty
- Loss of community resources, services and support systems.

The Project would likely reduce the frequency, duration and severity of water restrictions (Section 2.1.3), particularly as drought events are expected to increase (DRDMW, 2021). Drought events have social and cultural significance, often experienced most keenly by regional communities that rely on agricultural and pastoral livelihoods (Paxton, 2021). Phelps and Kelly (2019) identify that the "cascading impacts of drought are complex, interrelated and affect the whole community." These include the loss of social networks, reduced mental health and reduced local services (Lester et al, 2022).

A large volume of Longreach's water supply provides for the ongoing maintenance of public and private 'green' spaces, such as gardens, lawns, parks, and sporting fields. Green spaces provide vital health services as well as environmental services, reducing socioeconomic health inequalities, facilitating activity and promoting better mental health and well-being (Barton and Rogerson, 2017). A secure water supply will facilitate more reliable continuation of green space maintenance and allow for the incorporation of greenspace into the design of buildings, healthcare facilities, social care settings, homes and communities. This creates shared spaces which facilitate interaction and attachment, foster well-being, and increase opportunities for green exercise (Kellert, 2016).

2.2.2. Economic

Longreach's economy and employment are closely associated with agriculture, grazing and tourism, all of which rely upon a reliable water supply (Phelps and Kelly, 2019). Regions vulnerable to water insecurity experience direct impacts on farmers, the effects of which flow on to local businesses. Outmigration from regional towns due to prolonged drought in central-western Queensland is estimated to be 20% (Phelps and Kelly, 2019).

Severe water restrictions during the most recent severe drought contributed to an additional 1.2% decrease in population annually. The economic impacts of this, if applied to the current regional economy, would result in $9.4m of lost economic output every year, costing 35 jobs yearly, and resulting in $4.4m less value-added annually.

In addition to the town water supply, there are multiple agricultural holdings that have an allocation to draw from the Thomson River at Longreach. Improving the reliability of this storage will therefore also result in productivity gains for our crucial agricultural industry.

Enhanced water security has many economic benefits, such as:

- Attracting new residents and investment to the region
- Supporting the long-term viability of existing businesses and industries and, consequently, local employment
- Increasing community confidence in the reliability of water supply, stemming outmigration.

The Project will support LRC's economic development priorities, facilitating diversity of industry, innovation and skills development. A key strategy in achieving this outcome is to address water supply and security issues (LRC, 2017).

2.2.3. Environment

Ecological sustainability, climate change resilience and respecting natural values are important elements of the strategic planning and development intent for Longreach (*Longreach Regional Planning Scheme 2015* [planning scheme]). It is acknowledged that the Project may have impacts on ecological values, which will require appropriate mitigation.

Several environmental studies have been commissioned by the LRC for the Project. The purpose of these studies is to identify the potential environmental impacts of the Project and determine the most appropriate measures to minimise these impacts. These studies include:

- Terrestrial Ecology Assessment to determine the potential impacts on riparian vegetation due to clearance for construction of the raised weirs, as well as potential changes to riparian vegetation losses due to stream bank inundation.
- Flooding and hydrology assessment to determine the changes to flooding depths and velocity, both upstream and immediately downstream of the raised weirs.
- Aquatic Ecology Assessment to determine the potential impacts to aquatic flora and fauna within the Thomson River, including impacts on fish passage due to raising of the weirs.
- Cultural Heritage Assessment to determine the potential impacts on items and places of both indigenous and non-indigenous cultural heritage that could be subject to inundation following the Project.

The findings of these studies have also been considered by the LRC to determine how the Project could result in positive environmental outcomes.

2.3. Alternative options

In order to better understand their opportunities for securing a sustainable water supply for Longreach, the LRC commissioned Cardno (2017) to undertake a feasibility study of the following options:

1. Raise the level of the existing weirs
2. Construct a new off-stream storage area (dam)
3. Construct a new in stream storage dam on Watyakan Creek
4. Install a permanent desalination plant for existing groundwater bore supply
5. Establish a new groundwater bore in an aquifer of higher quality
6. Recycle water from the sewage treatment plant.

The LRC has also considered the option of transferring water from the Ilfracombe groundwater bore to Longreach. A summary of these options is provided in Table 2-1.

Based on the analysis considered in the Cardno report, LRC has determined that raising the existing weirs by 1 m is the optimal solution to ensure that Longreach has safe, secure and reliable water supply in the long term, for the following reasons:

- No new infrastructure would be required, such as water transfer pipelines and pumping stations required for the other options. The Town Storage already contains existing intake infrastructure connected to the Longreach water treatment plant (WTP).
- The Project would only represent a change to an existing impact (being the impoundment of water in the Town Storage), rather than an introduction of a new environmental impact which would occur for other options (e.g. new impoundment of water on Watyakan Creek).
- The Project would likely provide the most reliable source of additional water, given:

  - more voluminous, reliable flows in the Thomson River compared to Watyakan Creek
  - groundwater yield, quality and licencing limitations in aquifers in the Longreach region
  - supply limitations from the sewage treatment plant.
- Fewer impacts to private landholders and the broader community, as there would be no requirement for additional infrastructure or inundation of new land not already subject to inundation, just an increase the water level within the existing Town Storage.
- Relatively lower operation and maintenance costs associated with the Project, when compared to the costs associated with the other options.

Table 2-1 Comparison of Project options

Option	Infrastructure requirements	Affected stakeholders	Limitations	Key potential impacts
Raise the height of the existing weirs	• Modification of weirs • Potential upgrades to access tracks.	• Landholders adjacent the Thomson River – inundation of already affected and additional lots • Cultural and recreational users of Thomson River banks, subject to additional inundation • Community and road users during construction phase.	• Height of raised weirs limited to height of surrounding topography to prevent spill-out • Storage volume increase to be within the limits set out in the *Water Plan (Cooper Creek) 2011.*	• Impacts on environmental flows, aquatic and terrestrial ecosystems and habitat • Changes to the extent and depth of flooding • Impacts on cultural heritage items and places subject to additional inundation.
Construction of a new off-stream storage dam adjacent to Thomson River	• New concrete dam/weir • Depending on topography, earthworks and/or pumping infrastructure.	• Landholders adjacent the Thomson River – inundation of already affected and additional lots • Cultural and recreational users of Thomson River banks, subject to additional inundation • Community and road users during construction phase.	• Construction of a new water storage on the Thomson River is not permissible under the *Regional Planning Interests Regulation 2014.*	• Impacts on environmental flows, aquatic and terrestrial ecosystems and habitat • Changes to the extent and depth of flooding • Impacts on cultural heritage items and places subject to additional inundation.
Construction of a new in-stream storage dam on Watyakan Creek	• New concrete dam/weir • New pumping infrastructure and ~4 km water transfer pipe between the storage and WTP.	• Landholders adjacent to Watyakan Creek – inundation of already affected and additional lots • Landholders along transfer pipeline route • Cultural and recreational users of Watyakan Creek banks, subject to additional inundation • Community and road users during construction phase.	• Height of new dam limited to height of surrounding topography to prevent spill-out • Storage volume to be within the limits set out in the *Water Plan (Cooper Creek) 2011.*	• Impacts on environmental flows, aquatic and terrestrial ecosystems and habitat • Changes to the extent and depth of flooding • Impacts on cultural heritage items and places subject to additional inundation.

Option	Infrastructure requirements	Affected stakeholders	Limitations	Key potential impacts
Install a permanent desalination plant for existing groundwater bore supply	• Permanent desalination plant • Brine treatment and/or disposal site/infrastructure • Power supply.	• Landholders along transfer pipeline route • Community and road users during construction phase.	• Available groundwater yield from the target aquifer • High energy consumption leading to high operating costs.	• Groundwater level drawdown on any surrounding bore users • Impacts on groundwater-dependent ecosystems • Potential noise impacts on residences located in the vicinity of desalination plant.
Establish a new groundwater bore in an aquifer of higher quality	• New bore and pump infrastructure • Transfer pipeline between new bore and WTP.	• Landholders along transfer pipeline route.	• Available groundwater yield from the target aquifer • Available water allocations under relevant Great Artesian Basin water plan.	• Groundwater level drawdown on any surrounding bore users • Impacts on groundwater-dependent ecosystems.
Recycled water from sewage treatment plant	• Transfer pipeline between sewage treatment plant and WTP • Additional water treatment infrastructure at existing WTP.	• Landholders along transfer pipeline route • Community and road users during construction phase.	• Output of sewage treatment plant • Community pushback – negative perception often associated with use of recycled sewage water for drinking and other uses	• Beneficial reuse of a waste stream
Transfer of groundwater from Ilfracombe to Longreach	• New pump infrastructure and transfer pipeline between groundwater bore and WTP.	• Landholders along transfer pipeline route • Community and road users during construction phase.	• High construction cost due to length of pipeline (approximately 30 km) • Available groundwater yield from the target aquifer • Available water allocations under relevant Great Artesian Basin water plan.	• Groundwater level drawdown on any surrounding bore users • Impacts on groundwater-dependent ecosystems • Potential noise impacts on residences located in the vicinity of pipeline construction.

3. Project description

Section 3 provides a description of the Project and its components, as well as an overview of the existing weirs and the Longreach water supply. Section 4 describes the proposed designation footprint, which will capture the entirety of the Project and the revised full supply level (FSL).

3.1. Existing weirs and water supply

The Town Weir is located approximately 3.5 km north-west of Longreach. Anabranch Weirs 1 to 4 are located in proximity to the Town Weir, on anabranches of the main Thomson River channel (Figure 1-1). Together, these existing weirs create the "Town Storage", which is approximately 10 km long and terminates at the upstream Fairmont Weir (Figure 1-1). The Town Storage holds approximately 3,300 megalitres (ML) of water.

The existing weirs are trapezoidal structures comprised of earthen cores with rock pitching and bitumen and/or concrete capping. The existing weirs are shown on Pictures 3-1 to 3-5.

Picture 3-1 Town Weir

Picture 3-2 Anabranch Weir 1

Picture 3-3 Anabranch Weir 2

Picture 3-4 Anabranch Weir 3

Picture 3-5 Anabranch Weir 4

A review of historical information indicates that the existing weirs were likely constructed in the 1950's, following the push for the establishment of a "Thomson River Authority", as reported in the Longreach Leader on Friday 12 March 1954 (Australian Heritage Specialists [AHS], 2023a).

The Longreach reticulated water supply infrastructure was originally connected to the natural water hole in the Thomson River via an inlet and pump station in 1938. This allowed for the expansion or irrigated agriculture and the maintenance of green spaces in the Longreach township (Urbis, 2021). The current water intake in the Town Storage is in the same location as the original inlet, and is located on the footbridge adjacent Apex Park (the Old Winton Highway). The minimum operating volume of the intake is 88 ML.

The LRC holds water access licence 604058 under the *Water Plan (Cooper Creek) 2011* (Cooper Creek Water Plan) which permits it to a nominal entitlement of 2,200 ML/yr from the Thomson River system. The maximum daily volumetric limit is 12.5 ML/day and the maximum extraction rate is 300 litres per second (L/s). The LRC also holds water interference licence 609661 under the Cooper Creek Water Plan for the existing Town Storage.

River water is pumped directly from the Town Storage to the 11 ML/day Longreach WTP, where it is distributed throughout the town's reticulation system. Releases from three upstream weirs (Fairmont, Bimbah, Goodberry Hills) are used to supplement the Town Storage when necessary.

Anabranch Weirs 3 and 4 failed during flooding events in 2022 and 2020 respectively, following which the LRC was required to repair and reinforce the weirs. Given their significant age, the structural integrity of the weirs is unknown and provides additional imperative for the LRC to undertake the Project, that is, to avoid a sudden loss of Longreach's water supply in the event of a weir failure.

3.2. Location

The relevant Lot/s and Plan/s associated with each of the weirs is listed in Table 3-1. The layout of the weirs, as well as their location with respect to the cadastral boundaries available on *Qspatial* (Department of Resources [DoR], 2022) is shown on Figure 3-1. The Project would not change the location of the existing weirs, with the exception of expanding their vertical and lateral extent commensurate with the 1 m raising.

Table 3-1 Location of the weirs

Weir	Relevant Lot/s and Plan/s
Town Weir	State land (Thomson River) Lot 2 SP123565
Anabranch Weir 1	Lot 4 SP23218
Anabranch Weir 2	Lot 4 SP23218
Anabranch Weir 3	Lot 2 SP123565
Anabranch Weir 4	Lot 2 SP123565

3.3. Construction

Project construction is expected to follow the following methodology:

- Re-grading of existing access tracks within the Town Common, as necessary, to ensure safe access by heavy vehicles and mobile plant
- Removal of vegetation within the construction footprint (Figure 2-2) as required; the combined construction footprint for all five weirs is approximately 1.64 ha
- Installation of an earth fill and/or sheet pile coffer dam upstream of the Town Weir (and potentially the Anabranch Weirs) and subsequent dewatering
- Removal of existing weir surface protection (i.e. concrete/bitumen capping) and excavation of embankments to a suitable level for foundation treatment
- Confirmation of existing foundation treatment and extents
- Installation of sheet piling along the length of the weirs and into the existing bank
- Placement of earthen fill to raise the weirs to a height of 179.6 mAHD
- Placement of concrete sills upstream and downstream of the earthen embankments
- Capping the embankments with reinforced concrete surface protection
- Placing a dumped-rock apron downstream of the weir
- Construction of a fish passage structure (Town Weir only) in conjunction with the relevant steps above
- Removal of any earth fill and/or sheet pile coffer dam structures installed prior to construction.

It should be noted that a detailed construction methodology is not yet available, as the approach to construction can only be determined following geological investigations, detailed engineering design, and selection of a construction contractor. The LRC will commence these phases following the securing of funding for the Project.

Accordingly, the construction methodology described above is preliminary only, and may change pending the outcomes of the phases listed above.

A high-level summary of other the Project construction aspects has been provided in Table 3-2.

Table 3-2 Summary of Project construction aspects

Aspect	Description
Access	• Access to the Town Weir and Anabranch Weirs 1 and 2 will be via the Landsborough Highway, Apex Park Road, then via unnamed access tracks located within the Town Common • Access to Anabranch Weirs 3 and 4 will be via the Landsborough Highway, Old Winton Highway, then via unnamed access tracks located within the Town Common.
Ancillary activities	• Temporary site offices and laydown areas will be established in existing cleared areas for the duration of construction activities. It is expected that two temporary site offices will be required – one in proximity to the Town Weir and Anabranch Weirs 1 and 2, and one in proximity to Anabranch Weirs 3 and 4.
Hours	• Construction activities will occur between the standard hours of 7 am to 6 pm, Monday to Saturday.
Workforce	• It is estimated that the Project will generate a total workforce of approximately 65 workers. The LRC anticipates Project construction occurring simultaneously at three weirs at a time, with crews of between 7-10 personnel at each weir. Based on this, there would be a workforce of approximately 30 personnel at any one time.
Duration	• Project construction is expected to take no longer than 12 months.

In addition to raising of the weirs themselves, the Aquatic Ecology Assessment (Appendix D) recommended that a rock ramp style fishway (Picture 3-6) should be integrated below the Town Weir to facilitate movement of aquatic fauna. Fishways are not proposed for Anabranch Weirs 1 to 4 (Section 6.3.3). LRC will commission a detailed design of the proposed fishway structure in parallel with detailed design of the raised weirs following geological investigations, detailed engineering design, and selection of a construction contractor.

Picture 3-6 Typical rock-ramp fishway structure

Source: Andrea Prior, via DES (2023)

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Thomson River Weir Raising Project

Figure 3-1 Project layout

3.4. Operation

Being stationary structures, the operational requirements of the existing weirs is limited to periodic inspections of their structural integrity, as well as undertaking maintenance activities when required. The Project would not change these operational requirements. Additional periodic inspections may be required for the rock ramp on the Town Weir to ensure its proper functioning after high-flow events. Given the insignificant nature of Project operations, these activities have not been considered in the environmental assessment carried out in Section 6.

The Project would increase the capacity of the Town Storage from approximately 3,300 ML to 4,200 ML, equivalent to a 28% increase. The LRC will lodge a water licence amendment to the Department of Regional Development, Manufacturing and Water (DRDMW) for its existing interference licence 609661 under the Cooper Creek Water Plan to allow for this increase.

The LRC currently holds licence 604058 under the Cooper Creek Water Plan for a 2,200 ML/yr entitlement from the Thomson River system. The LRC will consider future applications to increase its entitlement under licence 604058 to accommodate future water demand increases.

4. Designation description

4.1. Footprint

The designation being sought subject of this MID proposal encompasses the construction footprint for each weir (Figure 3-1), as well as the full supply level (FSL) of the Town Storage following Project construction. The designation footprint is shown on Figure 4-1.

The designation footprint would predominantly intersect with the following Lots:

- State land (Thomson River riparian corridor)
- Lot 2 SP123565
- Lot 4 SP23218.

In addition to the above, small portions of the Project FSL (part of the designation footprint) are shown to intersect with the following lots based on GIS analysis of the 179.6 mAHD contour and the State cadastral boundaries available (DoR, 2022):

- Lot 1 RP858039
- Lot 1 SP322808
- Lot 1 PD839910
- Lot 1 POR579
- Lot 186 POR579
- Lot 2 POR579
- Lot 107 PD47
- Lot 109 PD103
- Lot 112 PD95
- Lot 2 SP134387
- Lot 23 SP117111
- Lot 33 SP117111
- Lot 35 CM95
- Lot 7 CM84.

These intersections are all very minor in nature, and due to the resolution of the LiDAR data, will not necessarily equate to inundation of a portions of these lots by the Project FSL. The LRC will continue to consult with landholders adjacent to the Town Storage during and following Project construction (Section 10).

4.2. Land use considerations

4.2.1. Easements and encumbrances

The designation footprint is not burdened by, nor does it benefit from, any easements. It is noted that Lot 4 SP232181 is burdened by an easement (Figure 4-1), however this does not impact the proposed designation footprint.

4.2.2. Transport networks

Access to the weirs is provided from the surrounding local and State road network, with final access provided by unnamed access tracks within the Town Common (Table 3-2).

There are no public passenger transport services provided to the weirs.

4.2.3. Utility services

The water intake in the Town Storage, located on the footbridge adjacent Apex Park (the Old Winton Highway) (Section 3.1), is connected to the LRC's water supply infrastructure.

LEGEND
- Project Weir
- Populated Place
- Watercourse
- Project full supply level

Anabranch Weir 4
Anabranch Weir 3
Anabranch Weir 2
Town Weir
Anabranch Weir 1
Thomson River

0 1 2 km

NGH

Thomson River Weir Raising Project

Figure 4-1 Project full supply level

5. Statutory context

5.1. Planning Act 2016 and Planning Regulation 2017

Part 5 of the Planning Act establishes the process by which premises may be designated for the development of certain infrastructure. It provides an alternative assessment pathway for the delivery of important infrastructure, where standard development assessment processes may be unsuitable or less efficient.

Pursuant to section 35, a ***designator*** may designate a premises for infrastructure prescribed under schedule 5 of the Planning Regulation (part 2, ***other infrastructure***). In this instance, the LRC is seeking a MID over the subject land for:

- Item 19 – Water cycle management facilities.
- Item 20 – Storage works depot and similar facilities, including administrative facilities relating to the provision of maintenance of infrastructure state in this part.

A designator may be either the Minister, where a MID is proposed, or the relevant local government (a 'local government infrastructure designation'). In the case of the Project, as the request is for a MID, the Minister is the relevant decision-maker, or 'designator'.

Sections 36 and 37 of the Planning Act prescribe the criteria and the process for making or amending a designation. An assessment of the Project against this criteria is provided in Table 5-1. Relevantly, section 26(3) provides for the Minister to prepare guidelines for the environmental assessment and public consultation aspects of the MID process. These are the *Minister's Guidelines and Rules* (MGR) (Department of State Development, Infrastructure, Local Government and Planning [DSDILGP], 2023), given effect under sections 14 and 15 of the Planning Regulation. The process under the MGR is summarised in Section 5.3.

Table 5-1 Criteria for making and amending designations

Criteria	Response
(1) To make a designation, a designator must be satisfied that – *(a) the infrastructure will satisfy statutory requirements, or budgetary commitments, for the supply of the infrastructure; or* *(b) there is or will be needed for the efficient and timely supply of the infrastructure.*	The LRC is seeking funding arrangements from the Queensland Government for the Project. Section 2.1 of this report discusses the justification for the Project in the context of future water security and demand.
(2) To make or amend a designation, if the designator is the Minister, the Minister must also be satisfied that adequate environmental assessment, including adequate consultation, has been carried out in relation to the development that is the subject of the designation or amendment.	Section 6, as well as Appendices B to H, provide an environmental assessment of the Project. Section 10 and Appendix K describe stakeholder consultation undertaken for the Project.
(3) The Minister may, in guidelines prescribed by regulation, set out the process for the environmental assessment and consultation.	The process for carrying out environmental assessment and consultation relating to the creation or amendment of a MID is detailed within the MGR. This report has been prepared in accordance the requirements of the MGR.

Criteria	Response
(4) The Minister is taken to be satisfied of the matters in subsection (2) if the process in the guidelines is followed.	Not applicable. Refer to response at item (5).
(5) However, the Minister may be satisfied of the matters in another way.	The LRC was advised via email correspondence from DSDILGP on 7 December 2023 that the Project has been endorsed for assessment under the MID process. Accordingly, this application follows the Minister's process as per Sections 5.2 and 5.3.
(6) Sections 10 and 11 apply to the making or amendment of the guidelines as if the guidelines were a State Planning Policy.	This request does not include amendments to the MGR.
(7) To make or amend a designation, a designator must have regard to—	
(a) all planning instruments that relate to the premises; and	Section 8 of the Planning Act identifies a planning instrument as either: (a) a State planning instrument; or (b) a local planning instrument. Accordingly, this application takes into consideration all planning instruments relating to the subject land. Refer to Sections 5.3 - 5.5.
(b) any assessment benchmarks, other than in planning instruments, that relate to the development that is the subject of the designation or amendment; and	No other assessment benchmarks apply to the land subject of the Project.
(c) if the premises are in a State development area under the State Development Act—any approved development scheme for the premises under that Act; and	The land subject of the Project is not within an identified State Development Area.
(ca) if the premises are in a priority development area under the Economic Development Act 2012—any development scheme for the priority development area under that Act; and	The land subject of the Project is not within an identified Priority Development Area.
(d) any properly made submissions made as part of the consultation carried out under section 37; and	Properly made submissions will be considered following the consultation period and as part of the final assessment of the MID.
(e) the written submissions of any local government.	It is noted that the LRC (i.e. a local government) is the Infrastructure Entity in this instance. Notwithstanding, written submissions from LRC will be considered as part of the MID process.

5.2. Minister's Guidelines and Rules

Chapter 7, schedule 3 and schedule 4 of the MGR outline the process for making or amending a MID. This is supported by the information set out in *Making or Amending a Ministerial Infrastructure Designation (MID): Operational Guidance* (Operational Guidance) (DSDILGP, 2021).

Under section 36(5) of the Planning Act, the MGR are only one way of demonstrating adequate environmental assessment and consultation for a MID proposal. As LRC received endorsement for the Project to proceed as a MID on 7 December 2023, the process under Chapter 7 of the MGR applies.

5.3. Ministerial Infrastructure Designation

5.3.1. Process

The activities required to obtain a MID are outlined in the Operational Guidance and require a proponent to undertake a series of steps prior to receiving endorsement to proceed with an MID proposal. This process is illustrated in Figure 5-1.

Figure 5-1 Ministerial Infrastructure Designation process.

Source: Queensland Government, CC BY-NC-ND 4.0.

Prior to lodging this proposal, LRC has sought initial advice in respect of the MID proposal from the DSDILGP, completed preliminary consultation with key stakeholders and obtained official endorsement to proceed with a MID.

Initial advice

In accordance with the MGR and section 2 of the Operational Guidance, an entity must seek initial advice from the DSDILGP to identify relevant matters for consideration in a MID proposal, as well as direction in respect of the appropriate process. LRC submitted their request for initial advice in April 2023, receiving written pre-lodgement advice from the DSDILGP on 8 May 2023.

Preliminary consultation

As described in the Operational Guidance and in compliance with the MGR, an entity must undertake preliminary consultation prior to seeking the Minister's endorsement to proceed with a MID proposal. This ensures that the MID Proposal and associated technical reports can appropriately address any concerns raised by stakeholders.

Preliminary consultation for the Project was undertaken by the LRC. Further details on the timing and scope of this engagement, as well as the feedback received from stakeholders, is provided in Section 10. The Stakeholder Consultation Plan for the Project is provided as Appendix K.

Endorsement

Chapter 7 and schedule 3 of the MGR require that an entity obtain endorsement from the Minister to submit a MID proposal. A request for endorsement must include preliminary information about the location and scale of the proposal, provide a brief description of the proposed development, detail the preliminary consultation process and outcomes, and provide a summary of the technical reports to be prepared in support of the MID proposal.

LRC lodged their endorsement request on 26 October 2023. The DSDILGP confirmed, via email correspondence dated 7 December 2023, that the Project could proceed to lodgement of the MID proposal.

Proposal lodgement

As the DSDILGP has provided endorsement to lodge the MID proposal, LRC may submit this proposal addressing the criteria set out in section 26 of the Planning Act, most relevantly, the environmental assessment and consultation requirements described in chapter 7 and schedule 3 of the MGR. The consultation, revision and decision stages proceed following receipt of the proposal.

Consultation

Public consultation is required to be undertaken in accordance with chapter 7 of the MGR. This is both proponent-driven and undertaken by the Minister, for particular entities, such as with state government agencies. Consultation is required to inform stakeholders and the public of the proposed development to allow any concerns to be addressed as part of the final MID Proposal.

An entity is required to submit a consultation strategy for the Designator's endorsement as part of the MID proposal (MGR, chapter 7, part 1, section 1.3). LRC has prepared a Stakeholder Consultation Strategy (Appendix K). A summary is also provided in Section 10.

Upon completion of the consultation process, LRC will consider any submissions and comments received in respect of the proposal (MGR, chapter 7, part 1, section 1.8). This may necessitate changes to the proposal and further consultation on any amended proposal, should the Minster direct (MGR, chapter 7, part 1, section 1.11).

Decision by the Designator

Once the Minister is satisfied that the environmental assessment and consultation undertaken for the MID has achieved the requirements of the Planning Act, Planning Regulation and MGR, the Minister will decide to either proceed with the proposal or not to proceed. Where a proposal does not proceed, a decision notice is given to the entity and any other affected parties (Planning Act, section 37(5)).

Where the Minister decides to make a designation, they will publish a gazette notice about the MID (Planning Act, section 38(1)). The entity and affected parties will also be notified of the decision and provided with a copy of the decision notice (Planning Act, section 38(2)).

5.3.2. Effect of designation

Accepted development

A MID does not authorise development; rather, the effect of a designation is to make infrastructure the subject of a designation ***accepted development***, for which a development application is not required (Planning Act, ss 44(4) and (6)). This applies to:

- making a material change of use of premises
- reconfiguring a lot
- plumbing and drainage work
- operational work.

There are exceptions to this categorisation, most relevantly is building work, which continues to be assessable under the *Building Act 1975*. LRC will be responsible for identifying and obtaining any other approvals required under legislation other than the Planning Act.

Infrastructure charges

In accordance with section 119 of the Planning Act, an infrastructure charge may only be levied and recovered where a development approval has been given. As development for which a MID has been made is accepted development, for which a development approval is not required, infrastructure charges are not applied. Additionally, where development approval is not required, and is thus not subject to development conditions, additional trunk infrastructure payment conditions may not be imposed (Planning Act, section 130).

Other development on designated premises

A MID over premises does not prevent development that is inconsistent with the infrastructure subject of the designation. However, any such development may be ***assessable development*** requiring development approval under the relevant local planning instrument and/or the Planning Act framework (Planning Act, section 44(3)).

In preparing this proposal, a review of historical information was undertaken to identify any relevant development approvals over the premises. None were identified, including for the existing weirs, which were likely constructed in the 1950s (Section 3.1).

5.3.3. Duration and extensions

A MID has effect for six years (Planning Act, section 39(1)) unless the relevant entity seeks an extension for up to a further six years. Should LRC require an extension of any MID made by the Minister, any such request would be made in writing and must be accompanied by the consent of the land owner.

5.4. State planning instruments

State Planning Instruments are identified under Section 8 of the Planning Act as follows:

> *…(2) A State planning instrument is a planning instrument made by the Minister to protect or give effect to State interests, and is either –*
>
> *(a) a State planning policy (including a temporary State planning policy); or*
>
> *(b) a regional plan.*

In this instance, the following State planning instruments apply to the land subject of the Project:

- *State Planning Policy* (SPP) (Department of Infrastructure, Local Government and Planning, 2017)
- the State Development Assessment Provisions (SDAP)
- *Central West Regional Plan* (Regional Plan) (Department of Infrastructure and Planning, 2009).

An assessment of the Project against the SPP and Regional Plan is provided in Sections 5.4.1 and 5.4.3, respectively.

5.4.1. State Planning Policy

The SPP commenced on 3 July 2017 and expresses the State's interests in land use planning and development, promoting these interests through plan-making and the development decisions of state and local government. The SPP applies in various plan-making and decision scenarios including, relevantly, when designating premises for infrastructure (SPP, part B).

Part B also identifies the relevant parts of the SPP that the Minister must consider when assessing a MID proposal. These are summarised in Table 5-2.

Table 5-2 State Planning Policy - applicable parts

Responsible entity	Part of SPP and relevancy to Project							
	Parts A and B	Part C	Part D	Part E – State Interest Policies	Part E – Assessment Benchmarks	Part F	Part G – Appendix 1	Part G – Appendix 2
DSDILGP and Designator	N/A	Yes	Yes	Yes	Yes	N/A	N/A	Yes

The sub-sections below discuss the relevancy of these parts of the SPP to the Project.

Part C – Purpose and guiding principles

Part C of the SPP outlines the purpose and guiding principles for plan-making processes and development decisions within Queensland. The guiding principles must be assessed in conjunction with each State Interest (Section 5.4.1).

Table 5-3 summarises how this MID proposal addresses the applicable guiding principles. The 'integrated' and 'positive' guiding principles are not relevant, as this application is for the creation of a MID for the Project, and does not involve plan making.

Table 5-3 Assessment against the State Planning Policy guiding principles

Outcomes focused		
Guiding principle	*Clearly focus on the delivery of outcomes.*	• *Plans and development outcomes integrate and balance the economic, environmental and social needs of current and future generations in order to achieve ecological sustainability.* • *Plans express clear performance outcomes for development, supported by a range of acceptable outcomes, where possible.*

		• *Innovative and flexible approaches to design and development are supported and encouraged when consistent with a plan's strategic intent.* • *Decision making ensures that, where acceptable, when outcomes are satisfied by development, then the relevant performance outcome is taken to be satisfied in full. Performance outcomes may still be satisfied, even though an associated acceptable outcome is not met.* • *Plans and development outcomes support stated objectives, needs and aspirations of the community at the state, regional and local level.*
Response	The Project involves the granting of a MID over the subject land to facilitate the raising and continued operation of existing water storage infrastructure associated with the Town Storage. The Project will ensure a secure and reliable water supply for the people of Longreach and considers the economic, environmental and social needs of the local community.	
Efficient		
Guiding principle	*Support the efficient determination of appropriate development.*	• *Plans and assessment processes result in development outcomes that are certain, responsive and performance-based.* • *Plans regulate development only to the extent necessary to address potential impacts. When applied, plans adopt the lowest appropriate level of assessment required to efficiently and effectively address those impacts.* • *The level of assessment for development is proportionate to the potential impacts and level of risk of the development being regulated and a plan's strategic intent and purpose of the relevant zone, local plan and/or precinct, for instance development that is:* – *minor, low-risk and that is encouraged or contemplated in a zone should be identified as accepted development* – *consistent and in accordance with the broad intent of a zone and able to be assessed against assessment benchmarks, should be identified as code assessable development* – *contrary to the intent of a zone, requires public input or is unforeseen by a planning scheme, should be identified as impact assessable development and assessed against a broader range of matters.*
Response	This proposal involves the granting of a MID over the subject land to provide for the raising and continued operation of water storage infrastructure associated with the Town Storage. This designation will facilitate the efficient and timely delivery of water infrastructure, whilst ensuring subsequent works can proceed without the need for individual assessments against the planning scheme (except for Building Work under the *Building Act 1975*).	
Accountable		
Guiding principle	*Promote confidence in the planning system through plans and decisions that are transparent and accountable.*	• *Plans and development outcomes reflect balanced community views and aspirations based on a clear understanding of the importance of the community's involvement in plan making.* • *Plans resolve competing state and local interests through using an evidence-based approach, which balances community needs, views and aspirations.* • *Reasonable, logical and fair development decisions are supported by clear and transparent planning schemes.*

		• *Plans only seek to regulate land use and planning outcomes and do not address matters regulated outside of the planning system, for instance building work regulated under the Building Act 1975 (unless permitted).* • *Obtaining access to planning information is simple and direct, capitalising on opportunities presented by information technology.*
Response	The proposed MID will be undertaken in accordance with Chapter 2 of the Planning Act and Chapter 7 of the MGR. The Project and this MID Proposal have had due consideration of relevant State and local planning instruments, and preliminary consultation with relevant stakeholders, including State and local government representatives, and adjoining/affected landowners. It is noted that the MID process incorporates public consultation, allowing stakeholders, including members of the community, the opportunity to review and provide feedback on the proposed MID (Section 5.1.5). This establishes a transparent process, through which LRC will be accountable through giving due consideration to any submissions.	

The above assessment confirms that the proposed MID meets the requirements of the guiding principles of the SPP.

Parts D and E – State interest statements, policies and assessment benchmarks

The SPP addresses seventeen state interests categorised under the following themes:

(i) Liveable communities and housing
(ii) Economic growth
(iii) Environment and heritage
(iv) Safety and resilience to hazards
(v) Infrastructure.

A state interest is defined under schedule 2 of the Planning Act as:

(a) an interest that the Minister considers affects an economic or environmental interest of the State or a part of the State; or

(b) an interest that the Minister considers affects the interest of ensuring this Act's purpose is achieved.

Table 5-4 describes the applicability of each state interest with respect to the assessment of this MID proposal.

Table 5-4 Applicability of state interests

State interest	Applicability
Planning for liveable communities and housing	
Housing supply and diversity	Not applicable
Liveable communities	Applicable
Planning for economic growth	
Agriculture	Applicable
Development and construction	Applicable

State interest	Applicability
Mining and extractive resources	Not applicable
Tourism	Applicable
Planning for environment and heritage	
Biodiversity	Applicable
Coastal environment	Not applicable
Cultural heritage	Applicable
Water quality	Applicable
Planning for safety and resilience to hazards	
Emissions and hazardous activities	Not applicable
Natural hazards, risk and resilience	Applicable
Planning for infrastructure	
Energy and water supply	Applicable
Infrastructure integration	Applicable
Transport infrastructure	Not applicable
Strategic airports and aviation facilities	Not applicable
Strategic ports	Not applicable

Part E of the SPP contains state interest policies and where relevant, the assessment benchmarks for each state interest. For each state interest, Part E of the SPP advises when the assessment benchmarks apply and if so, what matters the development must be assessed against. The proposed MID has been assessed against the state interests included under Part E of the SPP in Table 5-5.

Table 5-5 Assessment of state interest policies and assessment benchmarks

State interest	Response
Planning for liveable communities and housing	
Liveable communities *Liveable, well-designed and serviced communities are delivered to support wellbeing and enhance quality of life.*	Water security is critical to maintaining Longreach's strong and unique identity, sense of community, and social and economic development (LRC, 2017). The Project would provide water security to the community of Longreach, along with it all of the benefits associated with community, social and economic development, which are important factors in a places liveability. Accordingly, the Project is consistent with the outcomes sought by this state interest.

State interest	Response
Planning for economic growth	
Agriculture *The resources that agriculture depend on are protected to support the long-term viability and growth of the agricultural sector.*	The Project has been designed and located to utilise existing disturbed areas to minimise impacts on the agricultural potential of the land. It is also noted that the Project will also benefit surrounding agricultural operations that have access to the Longreach water supply. Accordingly, the Project will not adversely affect the outcomes sought by this State interest.
Development and construction *Employment needs, economic growth, and a strong development and construction sector are supported by facilitating a range of residential, commercial, retail, industrial and mixed-use development opportunities.*	The Project will provide water security not only for domestic purposes, but for commercial and industrial purposes as well. There is expected to be more general future residential, commercial and industrial growth in Longreach, including large subdivisions (Section 2.1.2). Accordingly, the Project is consistent with the outcomes sought by this state interest.
Tourism *Tourism planning and development opportunities that are appropriate and sustainable are supported, and the social, cultural and natural values underpinning tourism developments are protected.*	The Project has been designed and located to protect the environmental and amenity values of the Thomson River to ensure it does not impact on the tourism potential of the area. That is, the revised FSL will not impact the tourism facilities located adjacent the Town Storage (e.g. Apex Park). Accordingly, the Project is consistent with the outcomes sought by this State interest.
Planning for environment and heritage	
Biodiversity *Matters of environmental significance are valued and protected, and the health and resilience of biodiversity is maintained or enhanced to support ecological processes.*	The Project has been designed to mitigate impacts on the environment and incorporates additional features such as a fishway on the Town Weir to improve fish movement along the Thomson River. Terrestrial and Aquatic Ecology Assessments have been prepared and are attached at Appendices E and D, respectively. These assessments set out recommendations to ensure the protection and management of environmental values. These recommendations will be implemented during the detailed design and construction phases. Accordingly, the Project is consistent with the outcomes sought by this State interest.
Cultural heritage *The cultural heritage significance of heritage places and heritage areas, including places of Aboriginal and Torres Strait Islander cultural heritage, is conserved for the benefit of the community and future generations.*	The Project has been designed to mitigate impacts on cultural heritage (Section 8). Aboriginal and Non-Aboriginal Cultural Heritage Assessments have been prepared to address this State interest and are attached at Appendices F and G, respectively. These assessments make recommendations to ensure the protection and management of cultural heritage. Accordingly, the Project is consistent with the outcomes sought by this State interest.
Water quality *The environmental values and quality of Queensland waters are protected and enhanced.*	Project construction will be undertaken in accordance with a detailed Construction Environmental Management Plan (CEMP), to be prepared following detailed design and engagement of a construction contractor. The management measures will be designed to ensure the Project does not result in the worsening of water quality within the Thomson River.

State interest	Response
	Notwithstanding the above, a Preliminary CEMP has been prepared to address this State interest and is provided as Appendix J. The Preliminary CEMP sets out recommendations to ensure the protection and management of water quality. Accordingly, the Project is consistent with the outcomes sought by this State interest.
Planning for safety and resilience to hazards	
Natural hazards, risk and resilience *The risks associated with natural hazards, including projected impacts of climate change, are avoided or mitigated to protect people and property and enhance the community's resilience to natural hazards.*	<u>Bushfire</u> The designation footprint contains areas identified as 'medium potential bushfire intensity' and 'potential impact buffer'. The Project involves raising existing water storage infrastructure (weirs) and accordingly will not result in additional impacts on the safety of people or property. It is also noted that the additional water storage provides increased capacity for firefighting purposes. A Preliminary Bushfire Hazard Assessment has been prepared to address this State interest and is provided as Appendix I. This assessment includes recommendations to reduce the risk of ignition from Project construction. Accordingly, the Project is consistent with the outcomes sought by this State interest. <u>Flooding</u> The designation footprint is mapped as containing 'flood hazard area' (local government flood mapping area) and is located within the 'extreme flood hazard area' under the planning scheme. Given its nature as in-stream infrastructure, the Project itself will not be impacted by flood events, with the existing weirs being subject to seasonal flooding. A Flood Impact Assessment has been prepared to address this State interest and is provided as Appendix C. This assessment found that the Project would not have significant impacts on flood depth, velocity and extent. The assessment also makes recommendations to ensure that the development does not result in increased impacts on the safety of people or property (e.g. from scour). Accordingly, the Project is consistent with the outcomes sought by this State interest.
Planning for infrastructure	
Energy and water supply *The timely, safe, affordable and reliable provision and operation of electricity and water supply infrastructure is supported and renewable energy development is enabled.*	The weirs have been operational since approximately the 1950s. As Longreach and the surrounding locality continues to grow and the demand for water increases (Section 2.1), LRC are seeking to develop the Project to secure long term water supply needs for Longreach. Accordingly, the proposed MID would facilitate the Project to increase the storage capacity within the Town Storage, helping to ensure the safe, responsive, reliable and affordable provision of water to the community. It is considered that the MID is consistent with the outcomes sought by this State interest.
Infrastructure integration *The benefits of past and ongoing investment in infrastructure and facilities are maximised through integrated land use planning.*	The Project will utilise existing connections to the LRC water supply network and WTP and seeks to provide additional water storage capacity which will benefit the Longreach township and surrounding locality. The existing infrastructure network is sufficient to capture and distribute the increased storage capacity. Accordingly, the proposed MID is consistent with the outcomes sought by this State interest.

The Project has been assessed to comply with all applicable matters of state interest included in the SPP. Individual mapping of each of the overlays affecting the subject land is included at Appendix L.

Part G – Appendix 2 Stormwater management design objectives

Part G of the SPP sets out design objectives for the management of stormwater during construction. Desired outcomes are identified for the specific aspects of stormwater management.

As the Project has not undergone detailed design, each of these outcomes are not specifically addressed at this stage of the proposal. As noted above, a Preliminary CEMP has been prepared (Appendix J), which contains general best-practice soil and water management measures. These controls will be reviewed and refined by the Project construction contractor for inclusion in a detailed CEMP, following the completion of detailed design.

Based on the above, it is considered that the Project would comply with Part G of the SPP.

5.4.2. State Development Assessment Provisions

The SDAP provide assessment benchmarks for development applications where the chief executive administering the Planning Act is the assessment manager or a referral agency. The SDAP identify state interest matters that development may require assessment against in specific state codes, as prescribed under the Planning Regulation (schedules). Although the MID proposal does not involve a development application, regard must be had for the relevant SDAP (Planning Act, section 36(7)).

The State Development Assessment Mapping System identifies that the following overlays apply to the MID footprint and premises (Appendix L):

- Fish Habitat Area
  - Queensland waterways for waterway barrier works – Major
- Water Resources
  - Water resource planning area boundaries
  - Great Artesian water resource plan area
- Native Vegetation Clearing
  - Category B area that is a least concern regional ecosystem
- State Transport
  - Areas within 25 m of a State-transport corridor (road and rail)

Based on the above, the following state codes are relevant to the Project:

- State code 1: Development in a state-controlled road environment
- State code 2: Development in a railway environment
- State code 6: Protection of state transport networks
- State code 10: Taking or interfering with water
- State code 16: Native vegetation clearance
- State code 18: Constructing or raising waterway barrier works in fish habitats.

Responses to these State codes have been provided in Appendix M.

5.4.3. Central West Regional Plan

The Regional Plan was adopted in July 2009 and encompasses the local government areas of Boula Shire, Winton Shire, Diamantina Shire, Barcoo Shire, Longreach Region, Blackall Tambo Region, Barcaldine Region and Winton Shire. It establishes the overarching framework for development within the region, providing for the management, protection and prioritisation of land uses and activities. The principles and policies set out in the Regional Plan seek to protect natural values, whilst continuing to support key regional industries, such as the resources and agricultural sectors. Liveability, infrastructure and services are also key matters for protection and enhancement under the Regional Plan.

Regional plans identify areas that are prioritised for environmental protection, urban development and industry. Relevantly, the Thomson River is mapped as a 'wetland area of high ecological significance' under the Regional Plan. The Project has been designed and will be constructed to minimise impacts on the ecological features of the Thomson River and surrounding area, as discussed in Section 6. The Project will also be subject to a Regional Interests Development Application (RIDA) (Section 5.5). Accordingly, it is considered that the Project will not compromise the outcomes sought under the Regional Plan.

5.5. Regional Planning Interests Act 2014

The *Regional Planning Interests Act 2014* (RPI Act) provides for the protection of areas of regional interest, identified under the various regional plans, from resource and other regulated activities. It also enables relevant policies about state interest matters to have effect within regional plans.

The designation footprint and MID premises are located within a strategic environmental area (SEA) – designated precinct, specifically the Channel Country SEA (Regional Planning Interests Regulation 2014, section 4 (1)(a)). The relevant part of the Channel Country SEA within which the Project is located, is generally contiguous with the 'wetland area of high ecological significance' identified under the Regional Plan, comprising the Thomson River channel and surrounding floodplain.

LRC will lodge a separate Regional Interests Development Application (RIDA), which will include a detailed assessment of the Project against the provisions of the RPI Act. The RIDA and subsequent approval will ensure compliance with the outcomes sought under the RPI Act and the protection of the Channel Country SEA.

5.6. Local planning instruments

5.6.1. Background

Local planning instruments are identified under section 8 of the Planning Act as follows:

> *…(3) A local planning instrument is a planning instrument made by a local government, and is either –*
>
> *(a) a planning scheme; or*
>
> *(b) a TLPI; or*
>
> *(c) a planning scheme policy.*

Only the planning scheme, incorporating its planning scheme policies, applies to the MID proposal, as LRC does not have a current temporary local planning instrument in place. Whilst the MID proposal makes the development being exempt from assessment against local planning instruments, the applicable provisions of the planning scheme must still be considered (Planning Act, section 36(7)). This assessment is provided in Section 5.6.2.

5.6.2. Longreach Regional Planning Scheme 2015

The planning scheme sets out the criteria (assessment benchmarks) that development within the Longreach local government area must be assessed against. Table 5-6 lists the planning scheme provisions applicable to the MID premises.

Table 5-6 Relevant planning scheme provisions

Component	Relevant provisions
Strategic framework	Rural area Waterway Floodplain Highway
Planning zone/precinct	Rural zone
Overlays	Airport Environs Overlay Flood Overlay Transport Noise Corridors

The relevant planning scheme provisions are considered below.

State Planning Policy

Section 2.1 of the planning scheme confirms that all State interests identified in the SPP are appropriately integrated within the scheme, excluding the sections not relevant to the Council region (i.e. Coastal Environment and Strategic Ports). A detailed assessment of the SPP has been undertaken in Section 5.4.1. It was determined that the Project generally complies with the outcomes sought for each State interest and thus complies with the planning scheme as it relates to these interests.

Strategic framework

Part 3 of the planning scheme provides the strategic framework for Longreach, establishing the policy direction for planning within the local government area. The strategic framework comprises an overall intent for development, supported by two themes, strategic outcomes, specific outcomes and detailed land use strategies. It is supported by mapping, relevant extracts of which are provided at Appendix L.

An assessment of the Project against the relevant elements of the strategic framework is provided at Appendix N. This assessment confirms that the development generally complies with the overall intent of the planning scheme.

Zoning and planning intent

The planning scheme establishes twelve land use zones within the local government area. The MID premises is predominately within the Rural zone, with that part of the land containing the Thomsen River unzoned. Section 1.3.4 of the planning scheme identifies that the zoning for roads, waterways and reclaimed land, where adjoined on both sides by land in the same zone, is considered to be zoned the same as the adjoining land. Accordingly, the subject site is wholly located within the Rural Zone (Figure 5-2).

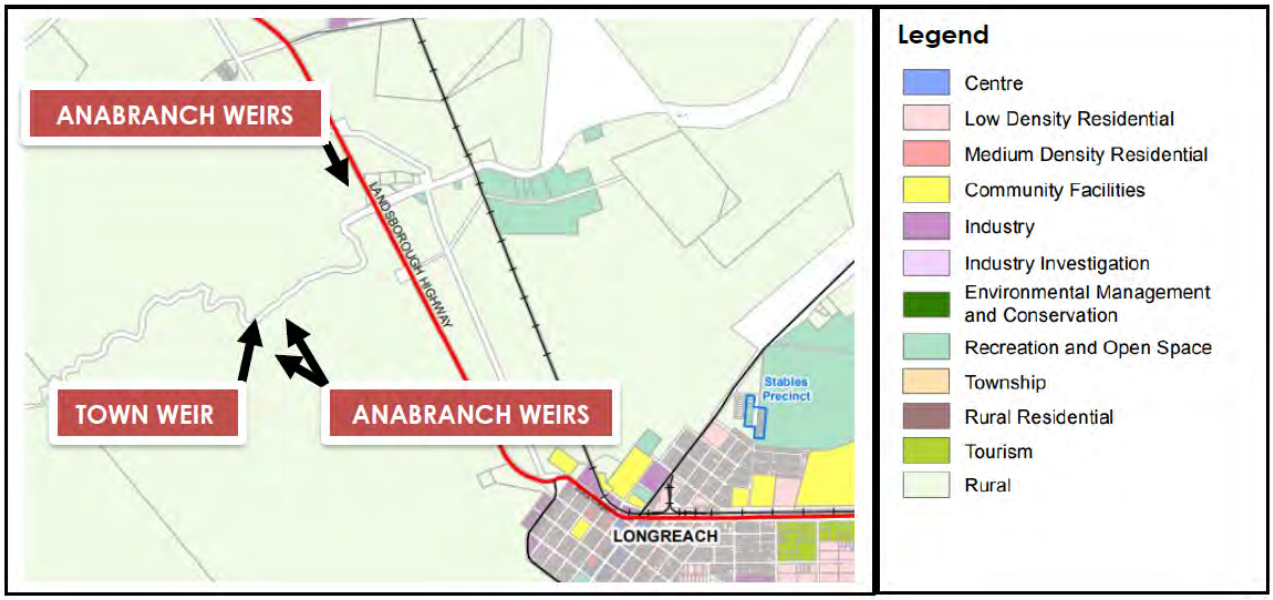

Figure 5-2 Ministerial Infrastructure Designation premises zoning

Section 6.2.9.2 of the planning scheme outlines the general intent for land within the Rural Zone through the collective identification of a purpose and overall outcomes. The purpose of the Rural Zone is to protect the productive capacity of the rural land and facilitate divers, however compatible. The protection of natural areas and processes is also an important outcome sought within the zone.

As the Project involves increasing water storage and thus water security, it will assist with the protection and growth of agriculture. It has been designed to minimise impacts on the ecological features of the area where possible. Accordingly, the proposed development is considered to comply with the intent of the Rural Zone Code.

Overlays

The planning scheme overlays identify land characterised by particular features or subject to physical constraints that may influence the use and development potential of affected areas. Overlay maps also identify those lands subject to assessment against specific area-based overlay codes.

The following overlays apply to the MID premises and Project footprint:

- Airport environs overlay
- Flood overlay
- Transport noise corridors.

Individual mapping of each of the overlays affecting the premises is included at Appendix L. The Project has also been considered against each overlay code and a summary is provided below.

Airport Environs Overlay

The designation footprint is located within Runway Buffer Area A and the Obstacle Limitation Surface of the Longreach Airport under the Airport Environs overlay. This means that section 7.2.1 of the planning scheme, the Airport environs overlay code, applies. The intent of the code is to ensure development does not impact upon the safety and efficiency of airport operations.

The Project will not result in structures or transient intrusions penetrating the obstacle limitation area or the attraction of additional wildlife to the area. Accordingly, the development will not impact on the operations of

the Longreach Airport and generally complies with the outcomes sought under the Airport Environs Overlay Code.

Flood Overlay

The subject land is impacted by Extreme Flood Hazard under the Flood overlay. The relevant assessment benchmarks under the Flood overlay code (planning scheme, section 7.2.2) must therefore be addressed.

Given its nature as in-stream infrastructure, the Project itself will not be impacted by flood events, with the existing weirs being subject to seasonal flooding. Additionally, flood modelling (Appendix C) found that the Project would not result in significant impacts on flood depths and velocity, and therefore would not result in worsening flood impacts on neighbouring or downstream properties.

Accordingly, the Project is considered to comply with the general outcomes sought under the Flood overlay code.

Transport Noise Corridors Overlay

The designation footprint is located within a transport noise corridor associated with the Landsborough Highway. The planning scheme does not contain an overlay code in relation to transport noise corridors (planning scheme, section 7.1(8)), however the general intent of identifying such corridors is to avoid the development of sensitive receptors within a noise corridor.

The MID proposal does not seek to establish a noise-sensitive use. It is therefore considered that the Project is consistent with the intent of the planning scheme in respect of noise corridors.

6. Environmental assessment

Under section 36(2) of the Planning Act, the Minister must be satisfied that an adequate environmental assessment has been carried out in relation to the proposed development to make a designation.

Accordingly, the purpose of the following section is to provide an assessment of the potential environmental impacts of the Project, and has been prepared with consideration of the requirements prescribed by Schedule 3 of the MGR. This assessment also provides management measures to minimise and mitigate the potential environmental impacts of the Project.

As noted in Section 3.4, Project operations have not been considered in this environmental assessment given their insignificant nature. Accordingly, only Project construction, as well as the potential impacts of the revised FSL, have been considered in this assessment.

6.1. Identification of key issues and impacts

A review of the potential environmental impacts of the Project has been undertaken to identify the key environmental issues requiring assessment. The key environmental issues identified are summarised in Table 6-1 and are addressed in Sections 6.2 to 6.8.

Table 6-1 Summary of key environmental issues and impacts

Environmental aspect	Key potential impacts	Relevant section/appendix
Surface water	Potential impacts on the depth, velocity and frequency of flooding due to changes in hydrology along the Thomson River main channel. Potential water quality impacts during Project construction.	Section 6.2, Appendices C and J
Aquatic ecology	Potential impacts on aquatic flora and fauna associated with disturbance of the bed and banks during Project construction, as well as increased depth of inundation for bed-dwelling ecology. Potential impacts on the movement of fish past the raised weirs.	Section 6.3 and Appendix D
Terrestrial ecology	Potential impacts on terrestrial flora and fauna associated with the clearance of vegetation during construction of the Project, as well as the increased FSL.	Section 6.4 and Appendix E
Land	Potential impacts on land directly disturbed by Project construction and indirectly disturbed by the increased FSL.	Section 6.5
Air	Potential air quality impacts during Project construction.	Section 6.6
Noise	Potential noise impacts during Project construction.	Section 6.7
Waste	Generation of waste during Project construction.	Section 6.8
Groundwater	As the Project wouldn't involve the extraction or interference with any groundwater sources, no potential groundwater impacts would occur as a result of the Project.	N/A

6.2. Surface water

Section 6.2.1 provides a description of the existing environment relating to surface water, Section 6.2.2 describes the potential impacts of the Project on surface water, and Section 6.2.3 outlines the proposed management measures.

Water Technology Pty Ltd (Water Technology) has prepared a Flood Impact Assessment for the Project, which has been provided as Appendix C. NGH has prepared an Aquatic Ecology Assessment for the Project, which has been provided as Appendix D. Sections 6.2.1 to 6.2.3 include the relevant findings from these reports.

6.2.1. Background

Environmental values

The *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* (EPP Water) and the EP Act provide a framework for:

- Establishing EVs and management goals for Queensland waters
- Deciding the water quality objectives (WQOs) to protect or enhance those EVs
- Listing the identified EVs, management goals and WQOs under Schedule 1 of the EPP Water.

Notwithstanding, the Project is located within the Thomson River sub-basin (0032) of the Cooper Creek basin (003). There are no defined EV's and WQO's identified under the EPP Water for the Thomson Riber sub-basin.

Accordingly, the Australian and New Zealand (ANZG, 2018) Default Guideline Values (DGVs) for slightly to moderately disturbed ecosystems in south central Australia (low rainfall areas i.e. most applicable to temporary Inland Waters of central Queensland) were considered in this MID Proposal and the Aquatic Ecology Assessment (Appendix D).

Water quality

Water sampling undertaken by NGH in the vicinity of the Project found quality was moderate to good, likely influenced to some degree by surrounding land-use and local geomorphology, which is characteristic of a moderately disturbed ecosystem. Surface water of waterways and wetlands within the vicinity of the Project was highly variable, with spatial heterogeneity in physio-chemical stressors and toxicants typical of ephemeral systems in the region (Appendix D).

Water quality spot-measurements indicate surface waters were mostly fresh (low salinity), moderately oxygenated (dissolved oxygen saturation), circum-neutral pH, highly turbid, elevated in nutrients (both nitrogen and phosphorous sources) and with background levels for dissolved Al and Cu elevated above respective ANZG (2018) DGVs (Appendix D).

Flood modelling

Water Technology developed a TUFLOW hydraulic model to assess the potential flood impacts of the Project. The extent of the TUFLOW model and modelled boundary conditions are shown on Figure 6-1.

The following scenarios were modelled for the Project:

- Existing case – representing current catchment and weir conditions

- Project case – based on the existing case scenario, with the inclusion of the Project (simulated in the TUFLOW model using civil design models developed by Engeny).

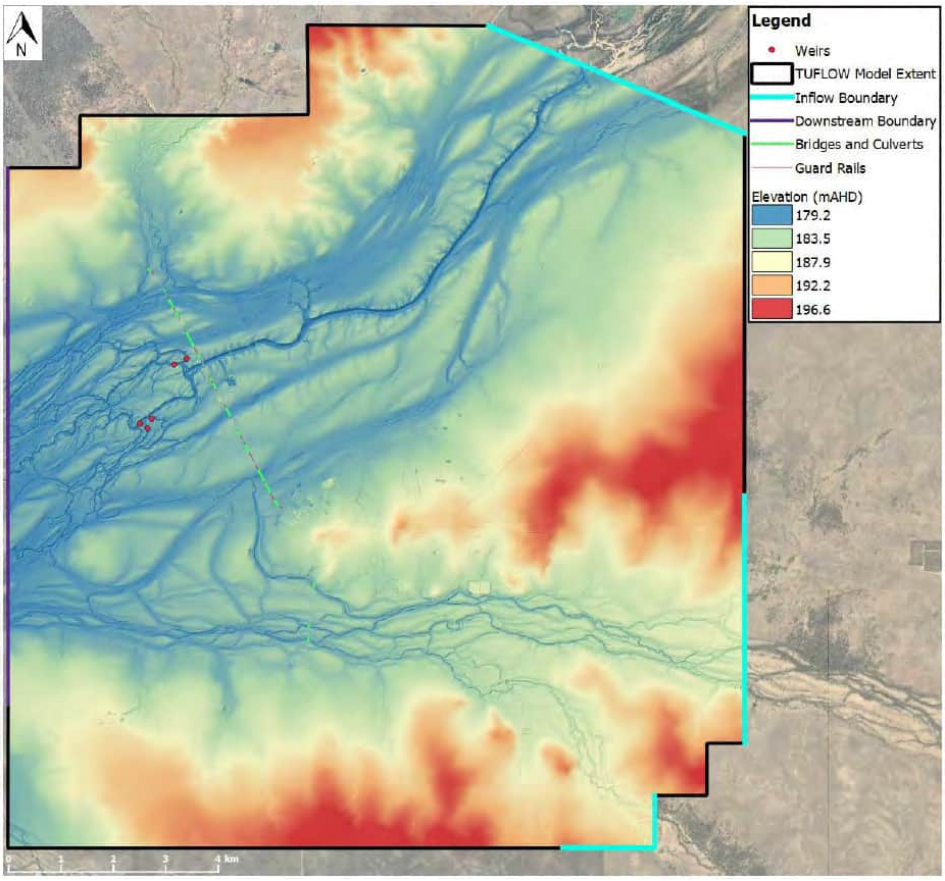

Figure 6-1 Extent of TUFLOW model and local topography

6.2.2. Potential impacts

Potential surface water impacts associated with the Project would primarily be associated with:

- The uncontrolled release of contaminants from vehicles or mobile plant operating during construction activities
- The disturbance and discharge of sediments to land and downstream waterways from construction activities
- Changes to the velocity, depth and extent of flooding events.

These potential impacts have been summarised below.

Uncontrolled release of contaminants

Uncontrolled releases could occur during Project construction as a result of plant or vehicle maintenance issues and inappropriately stored chemicals or products resulting in a release to ground. Activities which have the potential to cause uncontrolled releases include leaks, seepage or overflows from vehicle and mobile plant fuel tanks/fluids lines. These potential contaminants are outlined in Table 6-2.

Table 6-2 Potential contaminants from uncontrolled releases

Parameter	Source
BTEX	Light and heavy vehicles, mobile plant, generators and other machinery with an internal combustion engine.
Polycyclic Aromatic Hydrocarbons	
Total Petroleum Hydrocarbons	

Through the implementation of the management measures described in Section 6.2.3, the risk of uncontrolled releases occurring during Project construction is considered low. If an uncontrolled release does occur, the likelihood that contaminants mobilise off-site into the Thomson River and its anabranches is also considered unlikely through these measures.

Based on the above, it is considered unlikely that uncontrolled releases of contaminants from Project construction activities would result in an any additional exceedances of the ANZG DGV's, or a significant impact on the EVs of the Cooper Creek basin.

Sediment runoff

If uncovered excavated material or soil is exposed to heavy rainfall during Project construction, there is potential for the discharge of sediment-laden water downstream. The risk of such a discharge would be greater during the higher rainfall months (typically December to March). However, given the relatively small area of disturbance required for the Project (1.64 ha, Section 3.3), this risk is considered to have a low potential of occurring.

This risk is lowered further through the implementation of the management measures described in Section 6.2.3. If the off-site discharge of sediment laden water was to occur, it is considered unlikely to contribute to an exceedance of the ANZG DGV's for TSS given the elevated background levels of turbidity (Section 6.2.1).

Flooding impacts

Water Technology found the following with regard to the potential flooding impacts of the Project (Appendix C):

- In both the existing and Project case, the weirs are substantially overtopped.
- Very localised and minor water level increases are noted surrounding the weirs in the Project case. The increases are minor and inconsequential given the predicted depths over the structures.
- The Project does not result in adverse water level or velocity increases upstream to the Landsborough Highway corridor.
- Localised velocity increases are noted downstream of the weirs. These are likely to be inconsequential.

6.2.3. Management measures

Section 9.1 of the Preliminary CEMP (Appendix J) outlines a range of recommended management measures for implementation during Project construction to minimise the risk of impacts occurring to surface water quality.

Further to this, an Erosion and Sediment Control Plan will be prepared for the Project, following detailed design, as part of the detailed CEMP in accordance with the *Best Practice Erosion and Sediment Control* guideline (the White Book) (International Erosion Control Association Australasia [IECA], 2008). These plans, would include site-specific erosion and sedimentation controls, staging advice and stabilisation measures as well as technical notes to guide the installation, function and maintenance of ESC devices.

It is expected that the measures outlined in the Preliminary CEMP will be used to develop a more detailed CEMP by the chosen Project construction contractor following detailed design of the Project.

Given the findings of the Flood Impact Assessment (Appendix C), it is not considered any site-specific management measures are required. However, Water Technology recommends that the areas immediately adjacent to and downstream of the weirs are monitored for scour or erosion following overtopping events, given the localised velocity increased modelled downstream of the weirs.

6.3. Aquatic ecology

Section 6.3.1 provides a description of the existing environment relating to aquatic ecology, Section 6.3.2 describes the potential impacts of the Project on aquatic ecology, and Section 6.3.3 outlines the proposed management measures.

NGH has prepared an Aquatic Ecology Assessment for the Project, which has been provided as Appendix D. Sections 6.3.1 to 6.3.3 include the relevant findings from this assessment.

6.3.1. Background

The surface water background provided in Section 6.2.1 describes the environmental values and water quality context of the Project area, relevant to aquatic ecology. Other relevant background information on aquatic ecology is provided below.

Surface hydrology

Longreach region receives an average of 450 mm of rainfall per year, with most rainfall occurring during summer monsoon events (DNRME, 2019). The Thomson River only flows on a seasonal basis during these wet periods; however, flows are substantial, resulting in widespread flooding throughout the region (Bunn et al., 2006). During dry periods, water evaporates, causing retreating waterways dominated by permanent and semi-permanent waterholes that serve as refuges for various species. These waterholes are characterised by low salinity, high turbidity levels, and limited visual clarity (DEHP, 2016).

Waterways for waterway barrier works

The Thomson River main channel and its anabranches associated with the Project are mapped as a “major” (purple) waterway on the Queensland waterways for waterway for waterway barrier works mapping (Appendix L). It is noted that the anabranches associated with Anabranch Weirs 1 and 2 are not mapped on the waterways for waterway for waterway barrier works mapping.

Field survey

A seven-day field survey of aquatic ecology was undertaken by suitably qualified and experienced aquatic ecologists during the late dry season from 28 July to 3 August 2023. A total of eight sites were surveyed from the riverbanks. Of those, six were located within the extent of the Town Storage. Two additional sites outside the Town Storage were surveyed, one upstream of Fairmont Weir and one downstream of the Town Weir. One analogous site was located within Oma Waterhole, located approximately 97 km south of the Town Weir on the Barcoo River. In addition, nine areas within the Town Storage were surveyed using boat-based electrofishing methods.

At the majority of sites, water quality, sediment quality, habitat and macroinvertebrates were sampled. Water quality samples were undertaken in the field using a sonde, while lab samples were collected for analysis at the NATA accredited laboratory. Fish survey methods included fyke nets, box traps, gill nets and seine nets.

Aquatic habitat

Aquatic habitat condition along the Thomson River was generally consistent, dominated by clay material with minor sand content at two sites. Aquatic habitat complexity was low, with a notable lack of macrophytes and snags in the main channel. Furthermore, riparian vegetation was sparse as is typical of inland Queensland, however, canopy cover was higher at sites in the anabranches of the Thomson River. Three emergent aquatic plant species were recorded during the survey; however, no macrophyte species were considered of conservation importance.

Waterway connectivity along the Thomson River was affected by the Town Weir, creating a deep pool reaching beyond Fairmont Weir and serving as a dry season refuge.

Aquatic species

The survey indicated that main channel Thomson River and surrounds currently supports at least 12 freshwater species of fish (from a total of 21 species in the region), comprising 11 native and one exotic. Fish communities will exhibit temporal variability associated with sampling time / season, and species richness tends to be lower in winter, increasing following flooding for several species. The overall fish community comprised nine higher level taxonomic groups (Families) including Ambassidae, Clupeidae, Eleotridae, Melanotaeniidae, Percichthyidae, Plotosidae, Retropinnidae, Terapontidae and Poeciliidae.

No fish species listed as Vulnerable and/or Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/or in the state of Queensland were recorded during the survey. In general, the survey recorded localised populations considered to be a subset of the species known to inhabit nearby regional creek lines of the Barcoo / Cooper catchment.

Neither of the two freshwater turtle species recorded during the survey are listed under the EPBC Act or NC Act. The abundance and age-size class representation of Emmott's Short Neck Turtle (*Emydura macquarii emmotti*) suggests a healthy and self-sustaining population under current conditions main channel Thomson River.

The distribution of translocated Redclaw crayfish (*Cherax quadricarinatus*) showed a distinct spatial pattern, restricted to catch records upstream of Fairmont Weir (TRPE7) only. Anecdotal evidence by recreational fisherman suggests Red claw are present in the Town Storage, which in part, may account for the lack of catch records during the Survey.

Two species of decapod were recorded during the survey, river prawns (*Macrobrachium sp.*) and redclaw crayfish (*Cherax quadricarinatus*). The former species were present in large abundance at all sites, whereas the latter species were only recorded in the site upstream of Fairmont Weir. Anecdotal evidence from recreational fishers along the main channel of Thomson River suggests *C. quadricarinatus* is also present in large numbers throughout the system.

6.3.2. Potential impacts

NGH found the potential impacts to aquatic ecological values associated with the Project are expected to include (Appendix D):

- Direct impacts to riverine habitat and aquatic fauna within the construction footprint of the raised Town Weir and associated Anabranch Weirs, as well as increased inundation of the main channel and anabranches of the Thomson River (i.e. within the Project FSL)
- Indirect impacts to aquatic fauna due to changes in water quality during construction / weir raising.

These potential impacts are discussed below.

Direct impacts

Direct impacts may include direct disturbance of benthic and/or littoral habitat, as well as potential to isolate or strand fish populations during Project construction (e.g. behind coffer dam structures), requiring fish salvage / translocation prior to dewatering operations, as required.

Increased inundation within the Project FSL will result in a shift in hydrological regime from ephemeral to semi-permanent inundation of some in-stream and riparian habitats. The greatest change from current condition is expected within a minor ephemeral tributary approximately 3 km upstream of the Town Weir on the north side of the channel. This direct impact is unavoidable but not considered to be significant in a regional context. Further, there is potential for a net positive benefit for smaller bodied fish species, as increased off-channel shallow and complex habitat will help avoid predation by larger bodied piscivorous species, abundant in the main channel Thomson River.

Indirect impacts

The Project also has potential for indirect impacts, primarily affecting water, sediment quality and/or instream pollution during the construction phase. Potential water quality impacts are described in Section 6.2.2. Other indirect impacts could include disturbance of local populations of aquatic fauna and waterbirds through noise and vibration from machines and vehicles may.

Conversely however, the assessment also found that the Project would benefit fish movement and migration, through the inundation of ephemeral tributary habitat and the provision of upstream and downstream fish passage at the Town Weir through the implementation of a rock ramp style fishway (Section 3.3).

6.3.3. Management measures

The Aquatic Ecology Assessment (Appendix D) recommended the following management measures to minimise Project impacts on aquatic ecology:

- Project design should consider installation of a fish passage structure (i.e. fishway) to facilitate connectivity of fish populations in the catchment. A rock ramp fishway, like that present at Fairmont Weir, is considered most appropriate, and should be incorporated into the engineering design (i.e., partial or full width).
- LRC engage a suitably qualified ecologist specialising in fish passage design to work alongside and provide design input at the detailed design stage to the preferred engineering consultant, to ensure that the design of the raised weirs (particularly, any fish passage structure at the Town Weir) facilitates adequate fish passage.
- Following construction of the Project, a suitably qualified ecologist specialising in fish passage design should review the suitability of the existing rock ramp fishway(s) at Fairmont Weir to continue to provide for passage (i.e., fishway functionality) under the Project FSL in the Town Storage.

Section 6.2.3 describes management measures in relation to water quality, which are also relevant to aquatic ecology.

6.4. Terrestrial ecology

Section 6.4.1 provides a description of the existing environment relating to terrestrial ecology, Section 6.4.2 describes the potential impacts of the Project on terrestrial ecology, and Section 6.4.3 outlines the proposed management measures.

NGH has prepared a Terrestrial Ecology Assessment for the Project, which has been provided as Appendix E. Sections 6.4.1 to 6.4.3 include the relevant findings from this assessment.

6.4.1. Background

Desktop assessment

A desktop assessment was conducted with a 30 km buffer of central site coordinates (-23.3994, 144.2660) for the purpose of reviewing relevant environmental documents, databases, maps and legislation (Commonwealth, State and Local). The purpose of the desktop assessment was to identify ecological values that have potential to occur within the Project area and surrounding landscape, and inform the field survey.

Field survey

A field survey was conducted by two Senior Ecologists (Dr Carissa Free and Elliot Budd) over the period 7-10 November 2022. The purpose of the field survey was to:

- Determine the presence of any matters of national environmental significance (MNES) and matters of state environmental significance (MSES)
- Verify mapped vegetation communities in the Project area
- Record any observations of conservation significant flora, fauna and fauna habitat in the Project area
- Identify weed species and documentation of vegetation disturbance.

The field survey included survey points at various locations along the banks of the Thomson River and its anabranches within the Project area.

Vegetation communities

The field survey indicated that the Project area conforms to the State regional ecosystem (RE) mapping, noting that detailed floristic ground-truthing was not undertaken during the field survey. Generally, the dominant species along the edges of the river were *Eucalyptus coolabah* with *Melaleuca trichostachya*, *Lysiphyllum gilvum* and *Acacia cambagei*. This conforms with least concern RE 4.3.11b. Further away from the river the dominant species were *Eremophila bignoniiflora*, *Acacia stenophylla, Acacia cambagei* and *Atalaya hemiglauca*, conforming with REs 4.3.4 x 2e and 4.3.4 x 1. On the floodplains adjacent there were areas of RE 4.3.24a where *Chenopodium auricomum* shrubland was the dominant flora species.

No endangered or of concern REs were recorded. All vegetation within the Project area and surrounds is mapped as Category B on the regulated vegetation management map. There is no essential habitat (MSES) mapped within the Project area.

Flora and fauna

No threatened fauna species were recorded within the Project area. A total of 45 least concern fauna species were observed (of which none are exotic) within the Project area. No threatened flora species were recorded within the Project area. A total of 16 least concern native flora species were observed in the Project area.

6.4.2. Potential impacts

Table 6-3 provides a summary of the Projects potential impacts on terrestrial ecology.

Table 6-3 Potential impacts to terrestrial ecology

Nature of impact	Frequency	Duration	Potential consequence/s
Clearance of native vegetation adjacent to weirs	Construction	Permanent	• Loss of approximately 1.64 ha of native vegetation comprising least concern RE 4.3.11b • Loss of associated native fauna habitat (e.g. hollow bearing trees).
Potential loss of streamside shelter/habitat trees from increased inundation and wet feet	Operation	Long-term, until equilibrium reached	• Loss of native fauna habitat features in trees lost from increased inundation • Direct injury/mortality of fauna during tree fall/loss.
Disturbance of fauna and habitat during weir construction	Construction	Short term	• Temporary disturbance of fauna that utilise habitat surrounding construction footprint due to construction noise and other activities • Direct injury/mortality to animals during construction • Changes in surrounding environment to benefit non-native and invasive flora species (e.g. weeds).
Potential increase in bank scouring downstream	Intermittent – during weir overtopping	Permanent	• Increase in the rate of scouring downstream of the weirs during overtopping events • Increased rate of loss of fringing habitat trees and remnant vegetation into river.

Each of these potential impacts are discussed in more detail in Section 5 of the Terrestrial Ecology Assessment (Appendix E).

6.4.3. Management measures

The Terrestrial Ecology Assessment (Appendix E) recommended the management measures outlined in Table 6-4 to minimise Project impacts on terrestrial ecology.

Table 6-4 Recommended terrestrial ecology management measures

Nature of impact	Recommended management measures
Clearance of native vegetation adjacent to weirs	• Clearing works monitored by qualified fauna spotter-catcher to safely relocate any fauna and minimise the likelihood of felled trees striking fauna • Revegetation/planting of *E. coolabah* and other flora species associated with RE 4.3.11b in the construction footprint where natural recruitment does not occur in the long term.
Potential loss of streamside shelter/habitat trees from increased inundation and wet feet	• Monitoring of tree loss on the banks of the Town Storage • Control agricultural grazing to increase recruitment of *E. coolabah* and other species edging the riverbank. • Planting of *E. coolabah* and other species edging the Thomson River to where tree loss is exacerbated, and natural recruitment is not occurring • Where significant, hollow-bearing trees are lost, install artificial hollows in the surrounding unaffected vegetation patches, or; manage felled hollow trees or logs as ground hollow habitat in the adjacent vegetation patches.
Disturbance of fauna and habitat during weir construction	• Turn off heavy vehicles and mobile plant when not in use to minimise noise and vibration disturbance • Implement speed limits on access tracks within Town Common • Pre-start inspections of heavy machinery and pits/excavations for trapped animals • Undertake vehicle visual inspections and washdown as necessary to remove any weed material prior to arriving at construction site • Treatment of weeds following construction to reduce the risk of weed propagation in immediate surrounds and downstream.
Potential increase in bank scouring downstream	• Areas immediately adjacent to and downstream of the weirs are monitored for scour or erosion following overtopping events • Limit public access to the banks of the Thomson River around the weirs to reduce activities (e.g. four-wheel driving) that may exacerbate riverbank destabilisation • Where scouring due to the Project is occurring and impacting fauna habitat, implement bank stability works.

6.5. Land

Section 6.5.1 provides a description of the existing environment relating to land, Section 6.5.2 describes the potential impacts of the Project on land, and Section 6.5.3 outlines the proposed management measures.

6.5.1. Background

Landforms and topography

Project construction activities will be undertaken within the banks and floodplain of the Thomson River and anabranches. The elevation of the existing weirs is approximately 178.6 mAHD. The elevation of the surrounding floodplain is generally consistent and is shown to be a height of 180 mAHD on Queensland Globe (DoR, 2023).

Geology

Mapping on Queensland Globe (DoR, 2023) indicates the weirs are all located within the "Qhab" geological unit, described as sand, gravel, silt and clay; active and abandoned stream channels and overbank deposits in braided stream systems. Geotechnical investigations will be undertaken prior to detailed design which will confirm the geology of the weir locations.

Soils

Australian soil classification mapping on Queensland Globe (DoR, 2023) indicates the weirs are all located on "Landsborough-Kendall" soil type, described as seasonally flooded alluvial plains of braided rivers and streams. Geotechnical investigations will be undertaken prior to detailed design which will confirm the soils of the weir locations.

Land class

The Project area and surrounds is mapped as agricultural land class C2, which is described as pasture land suitable for grazing native pastures, with or without the introduction of pasture, and with lower fertility soils than class C1.

Contaminated land

In consideration of the land uses surrounding the weirs (i.e. primarily undisturbed floodplain), and a desktop review of the historical aerial imagery, it is considered unlikely any contamination or historical contaminating activities are present within the Project construction footprint.

6.5.2. Potential impacts

The Project would temporarily alter the landforms and topography within the construction footprint through the clearance of 1.64 ha of vegetation, and through the creation of temporary material stockpiles as required. The construction footprint would however be returned to its natural elevation following the completion of construction.

Following completion of Project construction, the construction footprint would be allowed to rehabilitate naturally. Revegetation/planting of E. coolabah and other flora species associated with RE 4.3.11b in the construction footprint will also be undertaken where natural recruitment does not occur in the long term (Table 6-4). Accordingly, the Project will not change the existing land use of the Project area.

6.5.3. Management measures

Sections 6.2.3 and 6.4.3 describe management measures relating to sediment and erosion control and terrestrial ecology respectively, which are relevant to land.

6.6. Air

Section 6.6.1 provides a description of the existing environment relating to air, Section 6.6.2 describes the potential impacts of the Project on air quality, and Section 6.2.3 outlines the proposed management measures.

6.6.1. Background

Environmental values

The *Environmental Protection (Air) Policy 2019* (EPP Air) prescribes EVs of air which are to be protected or enhanced. These include:

a) the qualities of the air environment that are conducive to protecting the health and biodiversity of ecosystems

b) the qualities of the air environment that are conducive to human health and wellbeing

c) the qualities of the air environment that are conducive to protecting the aesthetics of the environment, including the appearance of buildings, structures, and other property

d) the qualities of the air environment that are conducive to protecting agricultural use of the environment.

Schedule 1 of the EPP (Air) outlines Air Quality Objectives (AQOs) for the protection or enhancement of these EVs.

Background air quality

Air quality in the vicinity of the weirs is characterised by a typical rural setting, with low concentrations of suspended particles and pollutants, with fluctuating levels of airborne dust depending on weather conditions and surrounding agricultural operations.

Sensitive receivers

The nearest sensitive receiver to the weirs is Apex Park, which is located approximately 2 km east of the Town Weir and Anabranch Weirs 1 and 2, and approximately 800 m east of Anabranch Weirs 3 and 4.

6.6.2. Potential impacts

Air emissions would predominantly be associated with vehicles and mobile plant during Project construction, and would include:

- Gaseous emissions (exhaust) from light and heavy vehicles, as well as mobile plant
- Dust emissions generated by vehicles and mobile plant operating within the construction footprint and along the access tracks within the Town Common.

Given the scale and duration of construction activities, it is not expected that the Project would generate significant air emissions. Further, given the distance from the nearest sensitive receiver and the isolated location of the weirs in the wider contextual rural landscape, the risk that the AQOs and EVs are exceeded, or that the surrounding air quality environment are impacted, is low.

6.6.3. Management measures

Section 9.2 of the Preliminary CEMP (Appendix J) outlines a range of recommended management measures for implementation during Project construction to minimise and manage air emissions.

It is expected that the measures outlined in the Preliminary CEMP will be used to develop a more detailed CEMP by the chosen Project construction contractor following detailed design of the Project.

6.7. Noise

Section 6.7.1 provides a description of the existing environment relating to noise, Section 6.7.2 describes the potential impacts of the Project on noise, and Section 6.7.3 outlines the proposed management measures.

6.7.1. Background

Environmental values

The *Environmental Protection (Noise) Policy 2019* (EPP Noise) details EV's which are to be protected or enhanced. These include:

a) the qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems; and

b) 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:

   i. sleep;

   ii. study or learn;

   iii. be involved in recreation, including relaxation and conversation; and

   iv. the qualities of the acoustic environment that are conducive to protecting the amenity of the community.

Schedule 1 of the EPP Noise, details acoustic quality objectives (NQOs) to be achieved, to protect or enhance these EVs.

Background noise levels

Noise levels in the vicinity of the weirs is characterised by a typical rural setting, with little to no noise from human activities, with the exception of intermittent noise coming from vehicles (tonal engine noise) on the Landsborough Highway during conditions that promote the propagation of sounds to the west.

Sensitive receivers

Sensitive receivers relevant to the project are described sin Section 6.6.1.

6.7.2. Potential impacts

Mobile plant (e.g. excavators) and light and heavy vehicle movements during the construction phase would be characterised by low, tonal sound. Safety alarms and loading/unloading or reversing activities may produce intermittent impulsive noise. Impulsive noises relating to the loading or unloading of materials/products during construction will be unavoidable and dependent on daily activities.

Given the scale and duration of construction activities, it is not expected that the Project would generate significant noise emissions. Further, given the distance from the nearest sensitive receiver and the isolated location of the weirs in the wider rural landscape, the risk that the NQOs and EVs are exceeded, or that the surrounding acoustic amenity are impacted, is low.

6.7.3. Management measures

Section 9.3 of the Preliminary CEMP (Appendix J) outlines a range of recommended management measures for implementation during Project construction to minimise and manage noise emissions.

It is expected that the measures outlined in the Preliminary CEMP will be used to develop a more detailed CEMP by the chosen Project construction contractor following detailed design of the Project.

6.8. Waste

Section 6.8.1 describes types of waste likely to be generated by Project construction. Section 6.8.2 provides a description of the EVs relating to waste and potential impacts and Section 6.8.3 outlines the proposed management measures.

6.8.1. Background

The DES guideline ESR/2015/1836 – Application requirements for activities with waste impacts defines waste as:

- Anything other than an end of waste resource, that is either:
    - Left over, or unwanted by-product, from an industrial, commercial, domestic or other activity; or
    - Surplus to the industrial, commercial, domestic or other activity generating the waste'.

Wastes may be in the form of a gas, liquid, solid or energy, or a combination of any of these forms. Wastes can be highly hazardous or relatively benign and something generated as a waste from one process can also be considered to be a resource of value by another process.

6.8.2. Potential impacts

Significant volumes of waste are not expected to be generated from Project construction activities (with the exception of existing weir material), and are expected to include:

- General wastes
- Recyclable materials (ferrous, aluminium and paper)
- Soft plastics (pallet wrap etc.)
- Domestic waste
- Gaseous emissions
- Green waste
- Regulated waste
- Construction waste.

General wastes are expected to be produced at low levels. A minor amount of domestic waste and recyclables are likely to be produced by construction staff through food wrappings, scraps, product containers and other consumables. Green waste will be generated through clearing vegetation within the construction footprint. Gaseous emissions from the burning of hydrocarbon fuels to power vehicles and plant are classified as waste. These gasses include compounds such as:

- Carbon dioxide (CO2)
- Carbon monoxide (CO)

- Nitrogen oxides (NOx)
- Hydrocarbons (HC)
- Particulate matter (PM).

Volumes of these emissions are minimal, with emissions resulting from the combustion of fuel for site plant.

Regulated wastes produced during Project construction may include spent tyres and oils and lubricants produced during machinery maintenance.

The material associated with the existing weirs comprises a mixture of earthen core, rock, concrete and bitumen, and will total approximately 3,650 m^3. This material will be transported to and disposed of at the Longreach landfill approximately 12 km south-west of the site, utilising access tracks within the Town Common.

6.8.3. Management measures

The *Waste Reduction and Recycling Act 2011* details the waste and resource management hierarchy (Figure 6-2). Management measures that are proposed should consider the hierarchy. Waste management measures to be employed by the LRC are detailed below.

Figure 6-2 Waste and resource management hierarchy

Avoid

LRC will avoid the generation of waste including gaseous waste emissions by only utilising the minimum numbers of plant and machinery required to complete the works. LRC will continue to investigate the implementation of waste avoidance measures during the detailed design phase.

Reduce

LRC will actively look to reduce the creation of gaseous waste emissions from the burning of hydrocarbon fuels. This will include:

- Ensuring all site plant is turned off when not in use
- Site plant is regularly maintained and serviced
- Procurement of new site plant will include consideration of gaseous emissions

Re-use and Recycle

Recyclable materials (paper, ferrous and aluminium) will be separated and stored in dedicated skip bins supplied by a waste transport contractor. Bins will be collected as needed by the waste transport contractor and taken to a recycling facility.

Green waste produced during clearing activities will utilised on-site during rehabilitation activities (e.g. in-site placement of logs for fauna habitat).

Disposal of Waste

General and office waste will be collected on-site using bins with appropriate lids, which will be emptied as required and transported to an approved landfill site by an approved waste transporter. Other non-regulated wastes will be collected by a waste contractor who will transport the waste to approved landfill.

Regulated waste will be appropriately contained and temporarily stored on-site in approved bins and/or storage containers. Regulated waste to be removed from site by accredited transporter to an approved disposal facility.

Construction waste including concrete, reinforcement steel, formwork off-cuts, and general industrial waste will be collected and contained in large skip-style bins. Skips will be removed and replaced on an as-needed basis, by an accredited waste transporter.

7. Transport assessment

Rytenskild Traffic Engineering (Rytenskild) has prepared a Traffic Impact Assessment for the Project, which has been provided as Appendix H. Sections 7.1 to 7.3 include the relevant findings from this report.

7.1. Background

The Project will require the transport of total volume of approximately 12,375 m^3 (or 21,038 tonnes) of material to be hauled to (construction material) and from (associated with removal of the existing weirs) the weirs. Table 7-1 provides a summary of these material quantities.

Table 7-1 Estimated material quantities summary

Material Type	Estimated quantity					Total
	Town Weir	Anabranch Weir 1	Anabranch Weir 2	Anabranch Weir 3	Anabranch Weir 4	
Existing weir embankment (earthen) (m^3)	1,215	410	245	980	800	3,650m^3
Concrete sheet pile (m^2)	225	130	115	140	150	760m^2
Embankment fill material (m^3)	2,555	675	750	2,660	2,085	8,725m^3
Concrete sill (wet) (m^3)	150	85	75	90	100	500m^3
Reinforced concrete surface protection (m^3)	280	110	110	225	205	930m^3
Dumped rock protection (D50 = 200mm) (400mm thick) (m^2)	450	260	230	280	300	1,520m^2

It is intended that material will be hauled using semi-tippers and triple road train combinations. It is anticipated that waste earthen material excavated from the existing weirs (approximately 3,650 m^3) will be transported to the Longreach landfill approximately 12 km south-west of the weirs, utilising access tracks within the Town Common. It is anticipated that construction earthen fill material (approximately 8,725 m^3) will be sourced from a quarry on Cramsie Muttaburra Road approximately 13 km north-east from the site. Notwithstanding, this assessment has conservatively assumed the material may be sourced/disposed of elsewhere, therefore all roads in the surrounding network have been considered.

Assuming that the construction phase of the Project lasts for 12 months, with a total of 312 working days and approximately 950 loaded trucks, it is estimated that the Project will generate approximately three loaded trucks per day.

Access to the Town Weir and Anabranch Weirs 1 and 2 will be via the Landsborough Highway, Apex Park Road, then via unnamed access tracks located within the Town Common. Access to Anabranch Weirs 3 and 4 will be via the Landsborough Highway, Old Winton Highway, then via unnamed access tracks located within the Town Common (Section 3.3).

7.2. Potential impacts

7.2.1. Intersections

SIDRA modelling has been carried out for the Landsborough Highway / Apex Park Road and Landsborough Highway / Old Winton highway intersections. Given that the location of material source is currently uncertain, three sensitivity models have been prepared by Rytenskild, each assuming a different traffic distribution (Appendix H).

SIDRA results indicated that there are no concerns in relation to intersection performance with the above intersections operating at a high level of service regardless of which direction traffic distributes.

7.2.2. Road link capacity

The Landsborough Highway currently carries in the order of 500 – 600 vehicles per day, and as a rural highway has capacity for over 5,000 vehicles per day. The addition of the projected Project traffic demand of three heavy vehicle movements per day will not significantly impact upon the capacity or performance of the road. This is also the case for other rural roads in the area which are currently carrying relatively low traffic volumes. Beyond the Landsborough Highway, heavy vehicle demands generated by the Project will generally not exceed five vehicle movements per day on any individual road link.

The Thomson Development Road and Cramsie – Muttaburra Road are low volume rural roads carrying less than 500 vehicles per day. It is estimated that the proposal will generate an additional demand of less than three truck movements per day on each route. This impact will have a negligible impact upon the operation of each road.

Light vehicle movements will be distributed throughout the area, depending on where workers reside, however the majority will originate from the town area and therefore use the Landsborough Highway to access the site. The overall demand of 60 light vehicle movements per day is low, and the peak period impact will be comfortably accommodated by the existing road network.

7.2.3. Mitigation (road capacity)

The key intersection of the Landsborough Highway / Apex Park Road is currently of a high standard, comprising of a passing lane for northbound traffic, and a left turn deceleration lane for traffic turning left into Apex Park Road. No mitigation works are required at this intersection.

It is noted that the Landsborough Highway / Old Winton Highway intersection does not include a dedicated turning facility for traffic to turn right into the Old Winton Highway. This is considered to be satisfactory given the temporary nature of the works and the favourable geometrical conditions at the location, with the Landsborough Highway having a straight and flat alignment. Traffic measures (signage and line marking) will need to be implemented to provide a passage through the truck parking area to the Old Winton Highway.

Other key intersections in the area such as the Landsborough Highway / Cramsie Muttaburra Road intersection and the Landsborough Highway / Duck Street / Spoonbill Street intersection are of a high standard and will comfortably accommodate Project traffic.

The surrounding road network has sufficient geometric capacity to accommodate Project traffic, without the need for mitigation works.

7.2.4. Road pavement

The Landsborough Highway pavement is generally of a high standard for a rural arterial route, and has sufficient capacity to accommodate the Project. It is considered that the impact of Project traffic upon pavement life would be well less than 5% of the base volume. For example, the highway currently carries in the order of 145 heavy vehicles per day and 53,000 heavy vehicle movements per year. The pavement design would typically be based on a higher volume, however assuming the current volume, the 20 year design volume would be in the order of 1,050,000 heavy vehicle movements.

The Project will generate a demand for approximately 1,900 heavy vehicle movements (i.e. 950 return trips to the weirs) which will distribute throughout the surrounding road network depending on the location of material sources. In broad terms, therefore, heavy vehicle traffic generated by the Project will have negligible impact on pavement life.

Pre and post conditions surveys capturing damage incurred to the running surface and shoulders, and bitumen skewing at intersections, should be carried out. Regular surveys of impacts on Apex Park Road, and at the Landsborough Highway intersection should be conducted with the Principal Contractor responsible for the repair of any damage incurred by construction vehicles.

Impacts upon the Cramsie – Muttaburra Road are expected to be low, however the suitability of some parts of the road will need to be monitored, with mitigation works (e.g. grading) carried out if required. Impacts upon pavement at the Cramsie – Muttaburra Road and Old Winton Highway intersections with the Landsborough Highway will be very low and not warrant upgrade or maintenance works.

7.2.5. Management measures

A Traffic Management Plan will need to be prepared for the Project which documents:

- Temporary traffic management measures required to facilitate the safe passage of construction vehicles along Apex Park Road, Old Winton Highway and unnamed/unsealed access tracks leading to the individual construction sites within the Town Common.
- On-site vehicle parking for workers.
- Provisions for safe pedestrian access throughout the construction site.

8. Cultural heritage assessment

8.1. Aboriginal cultural heritage

AHS has prepared an Aboriginal Cultural Heritage Inspection (CHI) report for the Project, which has been provided as Appendix F. The relevant findings are summarised below.

The *Aboriginal Cultural Heritage Act 2003* (ACHA) requires that a person must exercise due diligence and reasonable precaution before undertaking an activity which may harm Aboriginal Cultural Heritage. The ACHA Duty of Care Guidelines were gazetted in April 2004 to provide guidance on actions required to demonstrate compliance with the ACHA. Any Aboriginal cultural heritage, if found, is protected under the ACHA.

AHS undertook a field inspection of the Project area and surrounds with representative from the registered cultural heritage party, Bidjara People #7, on 24 August 2023. The inspection was designed to confirm the results of the desktop assessment and to identify any Aboriginal cultural heritage risks for the Project, through targeted and purposive techniques.

Tangible Aboriginal cultural heritage was identified during the inspection, primarily in the form of stone tools, including flakes and cores. A range of materials were observed, consisting largely of silcrete, with the addition of cherts and two basalt flakes. Raw material for the production of these artefacts is unsupported by the local geology, which consists primarily of alluvium deposits, suggesting that this raw material was likely imported in the past.

Isolated artefacts were observed along the length of the study area, however, the highest concentration of artefacts was observed towards the western extent of the area, near the weirs themselves. The scatters seen towards the western extent were in the concentration of approximately 3-4 artefacts per square metre. Two potential scar trees were observed closer to the eastern extent of the Project Area.

Monitoring of initial ground disturbance works was recommended by the Bidjara representative during the Inspection. Monitoring of ground disturbing works was suggested for activities around the weirs themselves, for the initial layers of sediment that may contain tangible (physical) cultural Heritage.

The LRC will continue to consult with Bidjara prior to and during Project construction to implement recommended mitigation measures.

8.2. Non-indigenous cultural heritage

AHS has prepared a non-indigenous CHI report for the Project, which has been provided as Appendix G. The relevant findings are summarised below.

The *Queensland Heritage Act 1992* establishes obligations to provide for the conservation of Queensland's cultural heritage for the benefit of the community and future generations. A search of the Commonwealth, National, State and local heritage databases was undertaken and did not identify any registered matters of historic heritage significance within the Project area.

A field inspection was conducted by AHS personnel using purposive pedestrian transects and visual inspection to confirm the presence of any historic cultural heritage features and archaeological material.

Four items were identified with potential historic importance, being the remnants of a previous weir, the footbridge adjacent Apex Park, a Southern Cross Windmill and a water tank footing. AHS has provided a range of recommendations in relation to these items to be considered by the LRC prior to Project construction (refer to Section 4.2 of Appendix G).

9. Socioeconomic considerations

Section 2 discusses the justification for the Project within the broader themes of liveability, economy and the environment. These sections should be read in conjunction with the following consideration of the Projects socioeconomic impacts.

It is estimated that the Project will generate a total workforce of approximately 65 workers. The LRC anticipates Project construction occurring simultaneously at three weirs at a time, with crews of between 7-10 personnel at each weir (Section 3.3). Based on this, there would be a workforce of approximately 30 personnel at any one time. It is expected the majority of this workforce will be made up by the LRC's staff and local contractors where available, therefore providing employment opportunities to Longreach and surrounding towns.

During the construction phase, the Project is unlikely to have a significant impact on the community as the construction phase is temporary and the proposed workforce is relatively small and within the background population fluctuations in Longreach (Section 2.1.2).

The operational phase of the Project (Section 3.4) would not have any material impact upon the demographic profile of local and regional populations, with any required maintenance activities expected to be undertaken by the LRC and its contractors.

Economically, Project construction costs (e.g. through payment for material and labour to local businesses, contractors and personnel) would represent a relatively significant opportunity for local employment and associated flow-on effect in the community. Beyond construction, the Project will support LRC's economic development priorities, facilitating diversity of industry, innovation and skills development. A key strategy in achieving this outcome is to address water supply and security issues (LRC, 2017) (Section 2.1.2).

If the Project were not to go ahead, there would be potential economic implications for the LRC associated with:

- Purchasing of water to meet municipal needs during times of severe drought
- Potential loss of business and agricultural productivity due to the impacts of severe water restrictions
- Cost of replacing damaged weirs during flood events (refer to Section 3.1) due to the unknown structural integrity of the existing weirs.

Overall, it is considered the Project would have an overall positive impact on the socio–economic profile of the Longreach community, both during the construction phase, and due to the benefits brought about by the additional water storage provided.

The LRC will continue to consult with the Longreach community prior to and during Project construction and implement socioeconomic management measures as required (Section 10).

10. Consultation

10.1. Preliminary consultation

The LRC has undertaken various preliminary stakeholder engagement activities for the Project to date. Table 10-1 below summarises the nature of this engagement and key outcomes.

Table 10-1 Summary of preliminary consultation

Stakeholder	Engagement undertaken	Key outcomes
Government		
Department of State Development, Infrastructure, Local Government and Planning (DSDILGP)	• Pre-lodgement meetings on 2 November 2022, 14 December 2022 and 23 January 2023 • Ad-hoc calls and email liaison with assessment officers throughout 2023.	• Key assessment issues and information requirements for MID application identified • Scope of information requirements identified in initial advice, refined with assessment officers.
Department of Environment and Science (DES)	• Pre-lodgement meeting on 23 January 2023.	• Key DES assessment issues and information requirements for MID application identified.
Department of Regional Development, Manufacturing and Water (DRDMW)		• Key DRDMW assessment issues and information requirements for MID application identified • Requirement for separate water licence amendment application/s to be lodged with DRDMW confirmed.
Local Members	• Meetings/newsletter(s) • Information on Council website.	• General support shown for the Project
State Members		
Federal Members		
Longreach Community		
Affected landholders	• Letter box drop in July 2023 • Council newsletters, information on Council's website and included in Mayor's newspaper column.	• No comments or feedback was received from affected landholders in response to the letterbox drop.
Wider community	• Council newsletters, information on Council's website and included in Mayor's newspaper column.	• No comments or feedback was received from wider community, however general support has been provided.
Downstream Communities		
Barcoo Shire Council (BSC)	• Emails and meetings in August and September 2023 • Briefing note provided in August 2023.	• BSC raised issues with the potential for downstream water availability impacts

Stakeholder	Engagement undertaken	Key outcomes
		• The LRC subsequently prepared a briefing note outlining the expected downstream impacts of the Project on the BSC's water supply. BSC has since acknowledged the information in this briefing note, and passed a resolution of Council at their September meeting endorsing the Project.
Indigenous groups/Native Title Party		
Bidjara #6 and #7	• Field survey of Project area in August 2023.	• A number of Aboriginal cultural heritage sites recorded around the Town Storage and Project weirs. • Management measures to mitigate potential impacts on these recorded sites, as well as any unrecorded sites, are being developed in consultation with Bidjara.
Special Interest Groups		
Lake Eyre Basin Advisory Committee (LEBAC)	• Meeting in July 2022.	• LRC representative informed the LEBAC of intention to raise the weirs for water supply security. Committee members understood the need for increasing our water security.
Regional Area Planning and Development Board	• General discussions at board level.	• No opposition to Project expressed by board members.

10.2. Post-lodgement consultation

The following post-lodgement consultation will be undertaken by the LRC in accordance with requirements prescribed in Schedule 4, section 7 of the MGR, and the Project will be publicly notified for a minimum of 20 business days:

1. Publish notices in local newspaper/s (online or in print, as available) stating the relevant details including:
    a. the proposal
    b. a description of the land to which the proposal applies
    c. how the proposal can be viewed or accessed
    d. how to make a submission about the proposal
    e. the day by when submissions may be made to the Minister
2. Placing a sign at an opportune location along the Town Common access roads leading to the weirs
3. Sending a notice to key stakeholders identified in the Stakeholder Consultation Strategy (Appendix K).

11. References

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APPENDIX B: PROTECTED MATTERS - MNES

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 25-Nov-2025

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	14
Listed Migratory Species:	8

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	13
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	1
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places			[Resource Information]
Name	State	Legal Status	Buffer Status
Historic			
QANTAS Hangar Longreach	QLD	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Coongie lakes	500 - 600km upstream from Ramsar site	In feature area

Listed Threatened Species			[Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aphelocephala leucopsis			
Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Erythrotriorchis radiatus			
Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos			
Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Grantiella picta			
Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
Lophochroa leadbeateri leadbeateri			
Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo, Pink Cockatoo (eastern) [82926]	Endangered	Species or species habitat may occur within area	In feature area
Neochmia ruficauda ruficauda			
Star Finch (eastern), Star Finch (southern) [26027]	Endangered	Species or species habitat likely to occur within area	In feature area
Poephila cincta cincta			
Southern Black-throated Finch [64447]	Endangered	Species or species habitat may occur within area	In feature area
Rostratula australis			
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Sminthopsis douglasi			
Julia Creek Dunnart [305]	Vulnerable	Species or species habitat may occur within area	In feature area
PLANT			
Sclerolaena walkeri			
[16152]	Vulnerable	Species or species habitat likely to occur within area	In feature area
REPTILE			
Acanthophis hawkei			
Plains Death Adder [83821]	Vulnerable	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Motacilla cinerea			
Grey Wagtail [642]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat may occur within area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
[Rostratula australis as Rostratula benghalensis (sensu lato)](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Canberra ACT 2601 Australia
+61 2 6274 1111

Q:\GLC_Projects\GLC00322_0007 Longreach Regional Council\GLC00322_0007 Thomson River Weir RIDA Amendment\07 Deliv\2. Report\Figures & Appendices\Appendix B - Protected Matters - MNES.pdf

APPENDIX C: WILDNET - SPECIES LIST

WN Taxon I	Kingdom	Class	Family	Scientific n	Common n	NCA status	EPBC statu	Superseded
26941	Animalia	Actinoptery	Clupeidae	Nematalos	bony bream			No
27042	Animalia	Actinoptery	Percichthyi	Macquaria	golden perch			No
27045	Animalia	Actinoptery	Plotosidae	Neosiluroid	Cooper Creek catfish			No
27061	Animalia	Actinoptery	Retropinnic	Retropinna	Australian smelt			No
27093	Animalia	Actinoptery	Terapontida	Scortum ba	Barcoo grunter			No
716	Animalia	Amphibia	Bufonidae	Rhinella ma	cane toad			No
624	Animalia	Amphibia	Hylidae	Cyclorana a	greenstripe	C		No
695	Animalia	Amphibia	Myobatrach	Crinia dese	chirping fro	C		No
1371	Animalia	Aves	Acanthizida	Smicrornis	weebill	C		No
1725	Animalia	Aves	Accipitrida	Elanus axill	black-shou	C		No
1707	Animalia	Aves	Accipitrida	Haliastur sp	whistling ki	C		No
1710	Animalia	Aves	Accipitrida	Hieraaetus	little eagle	C		No
1714	Animalia	Aves	Accipitrida	Milvus migr	black kite	C		No
1305	Animalia	Aves	Acrocephal	Acrocephal	Australian r	C		No
1761	Animalia	Aves	Alcedinidae	Todiramphu	red-backed	C		No
1762	Animalia	Aves	Alcedinidae	Todiramphu	sacred king	C		No
1998	Animalia	Aves	Anatidae	Anas super	Pacific blac	C		No
2003	Animalia	Aves	Anatidae	Chenonetta	Australian w	C		No
1978	Animalia	Aves	Anatidae	Dendrocygn	plumed wh	C		No
1829	Animalia	Aves	Ardeidae	Ardea alba	eastern gre	C		No
1832	Animalia	Aves	Ardeidae	Ardea pacif	white-neck	C		No
1826	Animalia	Aves	Ardeidae	Egretta nov	white-face	C		No
1658	Animalia	Aves	Artamidae	Artamus cin	black-face	C		No
1654	Animalia	Aves	Artamidae	Cracticus n	pied butche	C		No
1656	Animalia	Aves	Artamidae	Cracticus to	grey butche	C		No
1644	Animalia	Aves	Artamidae	Gymnorhin	Australian r	C		No
1191	Animalia	Aves	Cacatuidae	Cacatua ga	sulphur-cre	C		No
1194	Animalia	Aves	Cacatuidae	Cacatua sa	little corella	C		No
1193	Animalia	Aves	Cacatuidae	Eolophus ro	galah	C		No
1173	Animalia	Aves	Cacatuidae	Nymphicus	cockatiel	C		No
1636	Animalia	Aves	Campepha	Coracina no	black-face	C		No
1637	Animalia	Aves	Campepha	Coracina pa	white-bellie	C		No
1089	Animalia	Aves	Casuariida	Dromaius n	emu	C		No
1940	Animalia	Aves	Charadriida	Elseyornis r	black-front	C		No
27774	Animalia	Aves	Charadriida	Vanellus m	masked lap	C		No
1933	Animalia	Aves	Charadriida	Vanellus m	masked lap	C		No
1820	Animalia	Aves	Ciconiidae	Ephippiorhy	black-neck	C		No
18323	Animalia	Aves	Columbida	Geopelia pl	peaceful do	C		No
1793	Animalia	Aves	Columbida	Ocyphaps l	crested pig	C		No
1605	Animalia	Aves	Corcoracid	Struthidea	apostlebird	C		No
1608	Animalia	Aves	Corvidae	Corvus cor	Australian r	C		No
1609	Animalia	Aves	Corvidae	Corvus orru	Torresian c	C		No
1740	Animalia	Aves	Cuculidae	Scythrops r	channel-bil	C		No
1611	Animalia	Aves	Dicaeidae	Dicaeum hi	mistletoebi	C		No
1369	Animalia	Aves	Estrildidae	Neochmia r	plum-head	C		No
1343	Animalia	Aves	Estrildidae	Taeniopygia	zebra finch	C		No
1704	Animalia	Aves	Falconidae	Falco cenc	nankeen ke	C		No

1691	Animalia	Aves	Falconidae	Falco longi	Australian h	C		No
1923	Animalia	Aves	Glareolidae	Stiltia isabe	Australian p	C		No
1678	Animalia	Aves	Gruidae	Antigone ru	brolga	C		No
1572	Animalia	Aves	Hirundinida	Hirundo ne	welcome sv	C		No
1585	Animalia	Aves	Hirundinida	Petrochelid	fairy martin	C		No
1573	Animalia	Aves	Hirundinida	Petrochelid	tree martin	C		No
18459	Animalia	Aves	Maluridae	Malurus as	purple-bacl	C		No
1539	Animalia	Aves	Meliphagid	Entomyzon	blue-faced	C		No
1499	Animalia	Aves	Meliphagid	Manorina fl	yellow-thro	C		No
1493	Animalia	Aves	Meliphagid	Philemon c	little friarbi	C		No
1518	Animalia	Aves	Meliphagid	Ptilotula pe	white-plum	C		No
1764	Animalia	Aves	Meropidae	Merops orn	rainbow be	C		No
1589	Animalia	Aves	Monarchida	Grallina cy	magpie-lark	C		No
1680	Animalia	Aves	Otididae	Ardeotis au	Australian b	C		No
1449	Animalia	Aves	Pachycepha	Colluricinc	grey shrike-	C		No
1437	Animalia	Aves	Pachycepha	Pachycepha	rufous whis	C		No
1284	Animalia	Aves	Pelecanida	Pelecanus	Australian p	C		No
1339	Animalia	Aves	Petroicidae	Microeca fa	jacky winte	C		No
1261	Animalia	Aves	Phalacroco	Microcarbo	little pied c	C		No
1263	Animalia	Aves	Phalacroco	Phalacroco	little black	C		No
1249	Animalia	Aves	Podicipedic	Tachybaptu	Australasia	C		No
1182	Animalia	Aves	Psittaculida	Aprosmictu	red-winged	C		No
1686	Animalia	Aves	Rallidae	Fulica atra	Eurasian co	C		No
1576	Animalia	Aves	Rhipidurida	Rhipidura l	willie wagta	C		No
963	Animalia	Mammalia	Pteropodida	Pteropus sc	little red fly	C		No
25904	Fungi	Agaricomyc	Ganodermat	Ganoderma				No
26476	Fungi	Agaricomyc	Ganodermat	Ganoderma australe		C		No
17978	Plantae	Equisetops	Amarantha	Alternanthe	joyweed	C		No
26483	Plantae	Equisetops	Asteraceae	Centipeda crateriformis		C		No
13619	Plantae	Equisetops	Asteraceae	Gnaphalium diamantin		C		No
14216	Plantae	Equisetops	Asteraceae	Sphaeranthus indicus		C		No
22235	Plantae	Equisetops	Asteraceae	Xanthium occidentale				No
16904	Plantae	Equisetops	Convolvula	Ipomoea di	desert cow	C		No
14669	Plantae	Equisetops	Cyperaceae	Cyperus victoriensis		C		No
12157	Plantae	Equisetops	Haloragace	Haloragis glauca forma		C		No
15700	Plantae	Equisetops	Leguminos	Acacia sten	belalie	C		No
5837	Plantae	Equisetops	Leguminos	Cullen cinereum		C		No
14420	Plantae	Equisetops	Loranthace	Lysiana subfalcata		C		No
16952	Plantae	Equisetops	Malvaceae	Hibiscus burtonii		C		No
16960	Plantae	Equisetops	Malvaceae	Hibiscus sturtii		C		No
11689	Plantae	Equisetops	Marsileace	Marsilea dr	common na	C		No
9374	Plantae	Equisetops	Myrtaceae	Eucalyptus	coolabah	C		No
36302	Plantae	Equisetops	Phyllantha	Synostemon hubbardii		C		No
10346	Plantae	Equisetops	Poaceae	Eragrostis confertiflora		C		No
34811	Plantae	Equisetops	Polygonace	Duma florulenta		C		No
14350	Plantae	Equisetops	Polygonace	Persicaria attenuata		C		No
16496	Plantae	Equisetops	Polygonace	Persicaria l	pale knotwe	C		No

Conservatio	Establishm	Sensitive sp	Area survey	Sighting rec	Specimen r	Sighting summary
No	QA	No		1	0	1
No	QA	No		2	0	2
No	QA	No		1	0	1
No	QA	No		1	0	1
No	QA	No		1	0	1
No	II	No		2	0	2
No	QA	No		1	0	1
No	QA	No		1	1	1
No	QA	No		2	0	2
No	QAI	No		2	0	2
No	QAI	No		4	0	4
No	QAI	No		1	0	1
No	QAI	No		2	0	2
No	QAI	No		1	0	1
No	QA	No		1	0	1
No	QAI	No		2	0	2
No	QAI	No		3	0	3
No	QA	No		1	0	1
No	QA	No		1	0	1
No	QAI	No		2	0	2
No	QA	No		2	0	2
No	QAI	No		1	0	1
No	QA	No		1	0	1
No	QA	No		3	0	3
No	QA	No		1	0	1
No	QAI	No		6	0	6
No	QAI	No		1	0	1
No	QAI	No		1	0	1
No	QA	No		5	0	5
No	QA	No		1	0	1
No	QAI	No		3	0	3
No	QAI	No		1	0	1
No	QA	No		1	0	1
No	QAI	No		3	0	3
No	QAI	No		2	0	2
No	QAI	No		1	0	1
No	QAI	No		1	0	1
No	QAI	No		1	0	1
No	QA	No		6	0	6
No	QA	No		3	0	3
No	QA	No		3	0	3
No	QAI	No		1	0	1
No	QAI	No		1	0	1
No	QAI	No		1	0	1
No	QA	No		1	0	1
No	QA	No		3	0	3
No	QAI	No		1	0	1

No	QAI	No	1	0	1
No	QA	No	1	0	1
No	QAI	No	1	0	1
No	QAI	No	2	0	2
No	QA	No	3	0	3
No	QAI	No	1	0	1
No	QA	No	2	0	2
No	QAI	No	1	0	1
No	QA	No	6	0	6
No	QAI	No	1	0	1
No	QA	No	6	0	6
No	QAI	No	2	0	2
No	QAI	No	4	0	4
No	QAI	No	1	0	1
No	QAI	No	1	0	1
No	QAI	No	1	0	1
No	QAI	No	1	0	1
No	QAI	No	2	0	2
No	QAI	No	2	0	2
No	QA	No	1	0	1
No	QAI	No	1	0	1
No	QAI	No	1	0	1
No	QAI	No	2	0	2
No	QAI	No	5	0	5
No	QAI	No	1	0	1
No		No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NAQ	No	2	2	2
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	1	1	1
No	NTQ	No	2	2	2
No	NTQ	No	1	1	1
No	NTQ	No	2	2	2

APPENDIX D: APPROVED PLANS (UPDATED FIGURE 1-1)

Legend

- Construction Buffer
- Approved Temporary Laydown Areas

Thomson River
101SP340142
Anabranch Weir 2
Coffer Dam #1
Town Weir
Anabranch Weir 1
4SP232181
0 15 30 45 60 m

Anabranch Weir 4
101SP340142
Coffer Dam #3
Coffer Dam #2
Anabranch Weir 3
Thomson River
4SP232181
0 20 40 60 80 m

GLC00322_0007 Thomson River Weir RIDA Amendment

Figure 1-1
Proposed Layout

REV.	DETAILS	DATE
A	Client Issue	09/12/2025

DRG REF. GLC00322_0007-001-SKE-005-A

DRAWN: AF | CHECKED: RC

APPROVED: RC | DATE: 09/12/2025

GENERAL NOTES:

CRS: GDA94 / MGA zone 55

LONGREACH REGIONAL COUNCIL

ENGENY

The Hon Jarrod Bleijie MP
Deputy Premier
Minister for State Development,
Infrastructure and Planning
Minister for Industrial Relations

DELIVERING FOR QUEENSLAND | Queensland Government

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ABN 65 959 415 158

DECISION NOTICE

Ministerial Infrastructure Designation for Thomson River Weir Raising Project

Decision details

Decision:	Ministerial Infrastructure Designation (MID) under section 38 of the *Planning Act 2016*
Date of decision:	10 November 2025
Type of infrastructure:	Planning Regulation 2017, Schedule 5, Part 2: • Item 19: water cycle management infrastructure • Item 20: Storage works depot and similar facilities, including administrative facilities relating to the provision of maintenance of infrastructure stated in this part.
DSDIP reference:	MID-0423-0690

Premises details

Street address:	Landsborough Highway, Longreach QLD
Real property description:	State land (Thomson River), Lot 4 on SP232181 & Lot 101 SP340142
Local Government area:	Longreach Regional Council

Infrastructure entity details

Infrastructure entity:	Longreach Regional Council

Requirements

A notice of requirements included in the MID is at **Schedule 1**.

Submissions

A notice of how I have considered submissions is at **Schedule 2**.

Advice to the entity

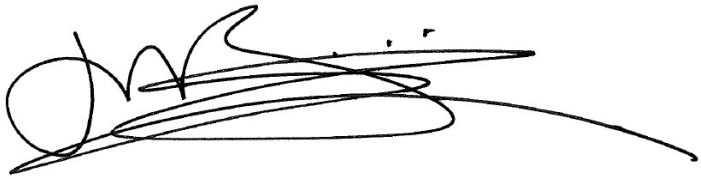
Despite the MID, the entity is responsible for determining what obligations exist under previous development approvals that apply to the premises.

Effective date

As set out in section 9(3) of the *Planning Act 2016*, the MID will take effect from the date the gazette notice for this MID is published in the Queensland Government Gazette.

Duration of MID

The duration of the MID is set out in section 39 of the *Planning Act 2016.*



JARROD BLEIJIE MP
DEPUTY PREMIER
Minister for State Development, Infrastructure and Planning
Minister for Industrial Relations

Schedule 1 - Notice of requirements included in the MID

Development under the MID is to be carried out in accordance with the requirements included in Table 1.

Table 1 - Requirements	
Plans of designation	
1.	The extent of inundation (full supply level) and development footprint (weirs, worksites/laydown areas and site offices) is to be generally in accordance with the plans contained in **Annexure 1** including: – 'Project Full Supply Level, Figure 4-1, Map 1 of 10 to 10 of 10, prepared by NGH, dated 25 November 2024 – General Arrangement Plans - Town weir – Anabranch Weir 1 and 2, Dwg no. BNE00322-0008-DWG-0101 Rev A, prepared by Engeny, dated 28 August 2025 (as amended in red by the Department of State Development, Infrastructure and Planning (DSDIP)) – General Arrangement Plans - Anabranch Weir 3 and 4, Dwg no. BNE00322-0008-DWG-0102 Rev A, prepared by Engeny, dated 28 August 2025 (as amended in red by DSDIP) – Suitable Project Sites, Figure 3-1, prepared by NGH, dated 19 October 2025.
Weir design and construction	
2.	The weirs and coffer dam are to be designed and constructed generally in accordance with the following plans of the Town Weir Raise Upgrade – 30 per cent Design Assessment, ref no. BBNE00322_008-REP-001-0, dated 4 September 2025, prepared by Engeny contained in **Annexure 2**: – Typical sections and detail, Sheet 1 of 4, Dwg No. BNE00322-0008-DWG-0103, dated 28 August 2025 – Coffer Dam Typical Section, Sheet 4 of 4, Dwg No. BNE00322-0008-DWG-0106, dated 28 August 2025.
Stormwater management	
3.	(a) Prior to the commencement of works, prepare a Stormwater and Drainage Management Plan (SWDMP) that includes measures to prevent or minimise the release of contaminants to waters. (b) Submit a copy of the SWDMP to DSDIP (infrastructuredesignation@dsdilgp.qld.gov.au). (c) During works, implement stormwater management measures in accordance with the SWDMP.
Erosion and Sediment Control	
4.	(a) Prior to commencement of works, prepare an Erosion and Sediment Control Plan (ESCP) in accordance with the Best Practice Erosion and

	Sediment Control Document, IECA, 2008 and State Development Assessment Provisions State Code 16 – Native vegetation clearing. (b) During works, implement the recommendations of the ESCP.
5.	(a) Following completion of construction of the weirs, prepare a Post-construction Monitoring Program (PCMP). The PCMP must be prepared by an appropriately qualified and experienced person for the purpose of: i. monitoring for scour or erosion in the areas immediately adjacent to and downstream of the weirs following overtopping events ii. monitoring for loss and recruitment/reestablishment of riparian vegetation on the banks of the Town Storage iii. monitoring the spread of invasive plant species and changes to the composition of native ecosystems on the banks of the Town Storage. (b) The PCMP must: i. provide for inspection and monitoring reports at suitable intervals for a period of 10 years ii. be made available to Queensland Government department(s) where requested iii. include alert and action component which will enable corrective measures to be taken if: – excessive erosion, scouring, and/or bank destabilisation is observed – excessive loss of riparian vegetation and/or lack of natural recruitment and reestablishment is observed – elevated presence of invasive plant species and/or evidence of environmental weeds out-competing and displacing native species. (c) Rectify any impacts identified though the PCMP alert and action component of the report.
Ecology	
6.	(a) Following completion of construction of the weirs, provide compensatory vegetation management for 1.64 hectares of removed regulated vegetation associated with construction and inundation areas. (b) The compensatory vegetation management must be provided through the provision of a land-based outcome in accordance with Appendix 12: (Better Environmental Outcome), State Development Assessment Provisions Guidance Material – State Code 16: Native vegetation clearing, Department of Resources, March 2023, version 3.00.
Stock Route	
8.	During works, ensure that any impacts to the road network as a result of construction does not adversely impact the pasture on the stock route or harm or impede the safe passage of travelling stock and/or authorised person/s under the offence provisions of the *Stock Route Management Act 2002*.

Bushfire	
9.	(a) Prior to the commencement of works, implement the findings and recommendations in the following sections and plan of the Preliminary Bushfire Hazard Assessment prepared by NGH, project no. 220597 - Final V1.1, dated 20 December 2023 and included in **Annexure 3**: i. Section 3.5 - Bushfire hazard assessment conclusions and recommendations. ii. Figure 3-1 – Suitable Project Sites.
10.	(a) Prior to the commencement of works, prepare a Bushfire Management Plan (BMP) prepared by a suitably qualified person which achieves the following: i. Demonstrates the setback to hazardous vegetation (firebreak) of a maximum width 20 metres or 1.5 times the height of the tallest adjacent tree, will achieve a radiant heat flux of =29kW/m2 to all proposed ancillary facilities including temporary site offices and laydown areas, and a radiant heat of =10kW/m2 for storage sheds with hazardous material in accordance with AS 3959:2018 Construction in bushfire prone areas will be incorporated into building construction design and construction. ii. If the 10kW/m2 radiant heat flux cannot be achieved, due to restrictions on clearing of regulated vegetation, then identify the appropriate radiant heat flux acceptable to the various structural components storage shed, hazardous material or dangerous good storages and how this separation can be achieved. iii. Hazardous chemicals storage labelling in accordance with relevant legislation and Australian Standards. iv. The location of water supply for firefighting purposes on site plans within relevant site operations documentation. v. Supply of water supply for firefighting should be available during a bush fire event, be in located to allow reachability of fire hoses to infrastructure. vi. Design internal access roads to accommodate firefighting vehicles and unobstructed access for personnel to operate equipment around the vehicle. Roads are to be designed with minimum 10m overall width clearance.
11.	(a) Prior to the commencement of works, prepare a Bushfire Emergency and Evacuation Plan (BEEP) addressing the construction phase, and including the following information at a minimum: i. A hazard analysis and risk assessment undertaken in accordance with *AS/NZ ISO 31000:2018 Risk Management Principles and Guidelines* and the Longreach Regional Council Local Disaster Management Plans. ii. Evacuation plans for the construction phase of the development. (b) Submit a copy of the BMP and BEEP to DSDIP (infrastructuredesignation@dsdilgp.qld.gov.au).

	(c) From commencement of site works, implement the measures outlined in the BMP and BEEP.
Traffic	
12.	Prior to the commencement of construction, liaise with the Department of Transport and Main Roads - Central West District regarding Temporary Traffic Management requirements during construction.
Vegetation and Fauna Management	
13.	(a) Prior to the commencement of works, prepare a Vegetation and Fauna Management Plan (VFMP). (b) The VFMP must be prepared by a suitably qualified person and: i. include procedures that ensure no trees or vegetation located outside of the construction disturbance footprint are damaged or removed during construction ii. include procedures for pre-clearing surveys for the identification of fauna species that may be impacted and fauna breeding sites iii. include procedures that specify the required actions in the event that fauna breeding sites are identified, or fauna is adversely impacted or injured by clearing or construction activities iv. identify appropriate mitigation measures to reduce the likelihood of impacts to fauna species, including but not limited to: • a requirement that site activities must be carried out only during daylight hours • a requirement that an appropriately trained fauna spotter/catcher be present during all vegetation clearing, habitat removal, excavation works, and other construction activities identified to potentially impact fauna • a site speed limit that applies to all vehicle movement • a requirement that vehicles and machinery must not traverse outside of established access tracks, the construction disturbance footprint, or temporary laydown areas v. identifies threats to environmental values through direct and indirect disturbance, ecological degradation processes, erosion or contamination from stormwater run-off, and environmental weeds vi. outlines mitigation measures and management actions required for the protection of MSES regulation vegetation and habitat from direct and indirect impacts from the development vii. identifies proposed biosecurity control measures and post-construction management actions required to prevent the spread of invasive plant species within the development area. viii. a requirement for all personnel onsite to undergo site inductions in which personnel are made of aware their obligations and responsibilities under the Vegetation and Fauna Management Plan. (c) Implement the recommendations of the VFMP during construction.

14.	Prior to the commencement of work, undertake the necessary actions to protect vegetation that is not required to be cleared from construction impacts in accordance with the AS4970-2009 Protection of Trees on Development Sites.
15.	Prior to the commencement of works, undertake a site inspection to confirm the presence of any invasive, declared or pest species (flora or fauna). If found, adhere to legislative requirements.
Waterways	
16.	Spoil not intended to be reused or form part of the weirs is not disposed of on or within waterways.
17.	Restore waterway profiles that are temporarily disturbed by the development works to pre-work profiles.
Environmental Management Register	
18.	Identify any notifiable activities within proximity to the construction areas. If relevant activities are identified, identify the location, extent and potential impact of the historical notifiable activity on the project site. If the area is to be disturbed in any way, develop a mitigation plan to manage the historical contamination in a manner that prevents environmental harm.
Construction management	
19.	(a) Prior to commencement of work, a Construction Environmental Management Plan (CEMP) must be prepared and submitted to DSDIP (infrastructuredesignation@dsdilgp.qld.gov.au). The CEMP must include/address: i. an Erosion and Sediment Control Plan that addresses the erosion risk and surface water run-off in accordance with Requirement 5. ii. dust mitigation methods (such as use of water to suppress potential dust) and air quality management measures iii. hours of construction, vibration, and construction noise (including the default noise standards), in accordance with the *Environmental Protection Act 1994* (s440R & 440S) iv. construction waste control and management, in conjunction with a waste management plan if deemed necessary v. disposal and management of hazardous materials and regulated waste, including removal by a suitably licenced contractor where deemed necessary vi. chemical and fuel used during construction stored in bunded areas vii. access locations for and management of construction vehicle traffic (any construction parking off-site is subject to engagement with Council and relevant landowners) viii. appropriate machine hygiene measures ix. ensuring that prior to arrival on site, all vehicles and machinery are to be cleaned down in accordance with the Department of

	Agriculture and Fisheries Queensland Vehicle and machinery checklists Clean-down procedures 2014. i. proximity of works to easements and services and any necessary design measures, additional analysis or safe work methods ii. other required permits from the council, easement holders or utility providers iii. maintenance of safe pedestrian and cyclist access/movement around the site iv. complaint resolution procedures, including who to contact and a record of how complaints have been addressed v. a construction communication plan including: ▪ how neighbouring properties will be advised of construction and demolition activities for each stage ▪ how the appropriate extent of neighbouring properties to be notified will be determined ▪ timeframes for notification of construction activities, with notification to occur prior to works commencing. (b) Construction of the development is to be undertaken in accordance with the CEMP.
Information signage	
20.	(a) Prior to the commencement of work, place an information sign on the site. (b) The information sign is to: i. include the following details: ▪ a link to where a copy of the MID decision and CEMP can be viewed on the DSDIP website; and ▪ the name, postal and/or email address and a contact telephone number for the key contact/principal contractor ii. be positioned on the Landsborough Highway frontage and be clearly visible for a pedestrian iii. be non-illuminated and maintained at all times during construction.
Geotechnical conditions	
21.	As part of detailed design, undertake a geotechnical investigation that confirms the ground conditions and informs building requirements.

Schedule 2 – Notice of how submissions were considered

Submissions received during Minister's consultation

On 30 September 2024, the former Planning Minister gave notice to the Council and the landowner advising that they were proposing to make the MID and inviting final submissions within 25 business days.

Public consultation actions were also conducted by the entity inviting submissions between 9 October 2024 and 7 November 2024.

Two submissions were received during this period from local residents.

A summary of how I have considered submissions is provided in the table below.

Matters raised	Response
Why wasn't the Town Weir and associated Anabranch Weirs raised when the Fairmont Weir was rebuilt?	The Council have investigated its available options for increased water supply and have chosen to proceed with this proposal. The State Government, through the then Department of Natural Resources, Mines and Energy have been involved with council's investigations and have undertaken supporting studies. Funding for the project is being sought from both State and Federal Governments, which ensures that thorough analysis of all available options has been undertaken.
Have locals involved in the Fairmont Weir project been consulted?	The Council has engaged with Council officers, experienced consultants and the community. The requirements for the design and construction of the weirs have changed considerably in comparison to weirs constructed in the early 2000s. Accordingly, whilst the historical weir designs have been reviewed and considered, the current designs are required to comply with more recent legislation and engineering requirements, which have informed the final designs.
Scouring impacts towards the end of the weir.	The MID requires the ongoing maintenance of the weirs to account for potential for scouring and erosion issues through a post construction monitoring program.
Has dredging the buildup of silt bars being considered as a possible solution, especially at the Town Weir, to increase water storage.	Dredging was not considered to be a suitable long-term solution due to the ongoing maintenance and logistical burden to maintain the storage capacity. It also requires large scale, significant disturbance and mobilisation of sediments, which results in-situ and downstream water quality impacts.
Viability of the project.	The Council have appropriately investigated its available options for increased water supply and demonstrated a budgetary commit to construct the new weirs.
These improvements are expected to increase water storage capacity by 900	Smart Meters are used to allow the Council and homeowners to track, in real-time, water usage, allowing leaks in council and private infrastructure to be more

Matters raised	Response
megalitres and reduce water loss by 245 megalitres per year. Is this by the weir construction itself or through the use of Smart Meters?	quickly identified. This, in conjunction with the upgraded water supply network will assist in reducing water loss within the township. The water meters cannot be used to limit or restrict a resident's water consumption.
Concerns Smart Meters have negative effects on people's health. The nearby Over the Horizon Radar facility's transmitter and receiver emits radiation. How will decision makers test radiation levels from the added emissions by the proposed 5G tower and Smart Meters to ensure residents of the Longreach and surrounding region are protected?	These matters are not a material planning consideration for the assessment of the MID.

Annexure 1 to Schedule 2 – Plans of Designation

LEGEND

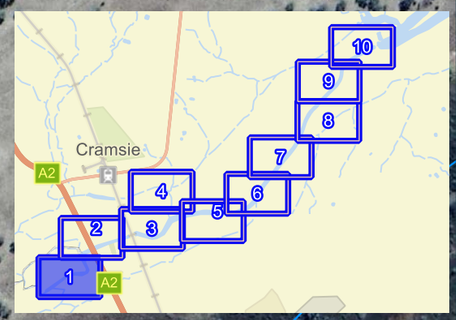
- Project Weir
- Watercourse
- Project full supply level

Thomson River

Anabranch Weir 2

Town Weir

Anabranch Weir 1



0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 1 of 10

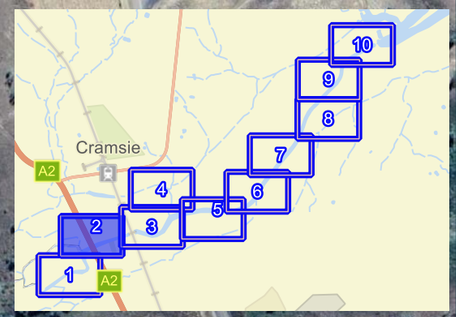
LEGEND

- Project Weir
- Watercourse
- Project full supply level

Anabranch Weir 4

Anabranch Weir 3

Thomson River



0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 2 of 10

LEGEND

- Watercourse
- Project full supply level

Thomson River

Cramsie

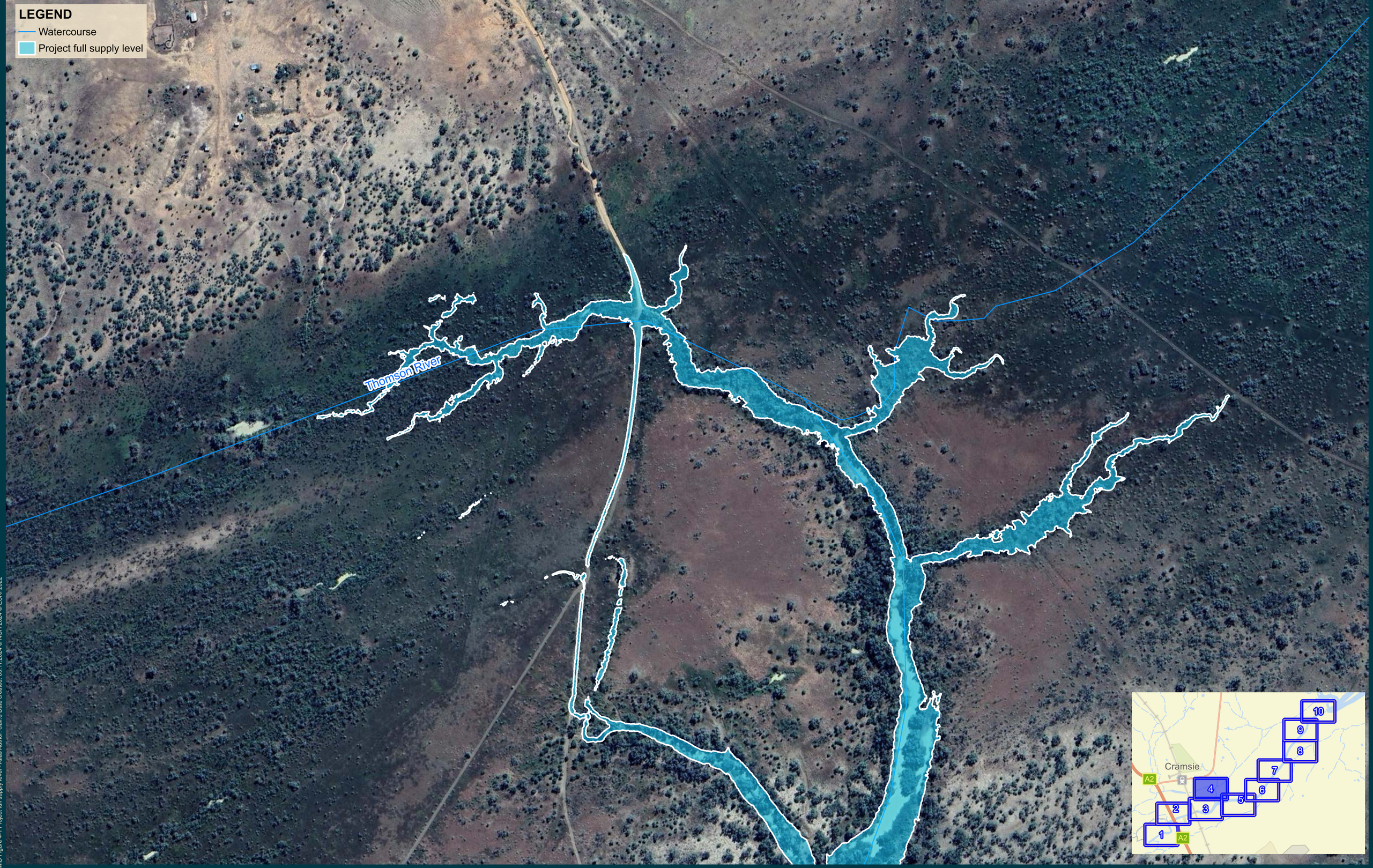
A2

1 2 3 4 5 6 7 8 9 10

0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 3 of 10



NGH

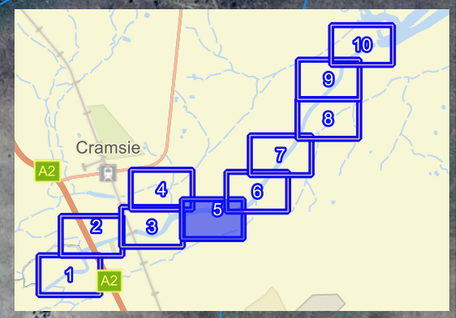
0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 4 of 10

LEGEND
Watercourse
Project full supply level

Thomson River



0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 5 of 10

LEGEND

- Watercourse
- Project full supply level

Thomson River

Cramsie

A2

1 2 3 4 5 6 7 8 9 10

0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 6 of 10

LEGEND

- Watercourse
- Project full supply level

Thomson River

Cramsie

A2

1 2 3 4 5 6 7 8 9 10

0 100 200 m

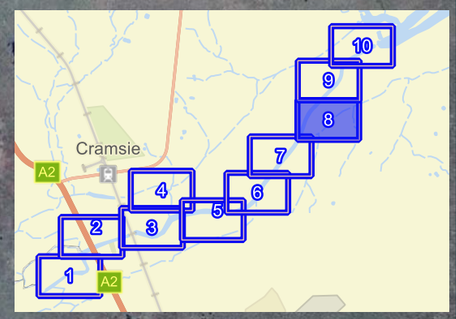
Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 7 of 10

LEGEND

- Watercourse
- Project full supply level

Thomson River



NGH

0 100 200 m

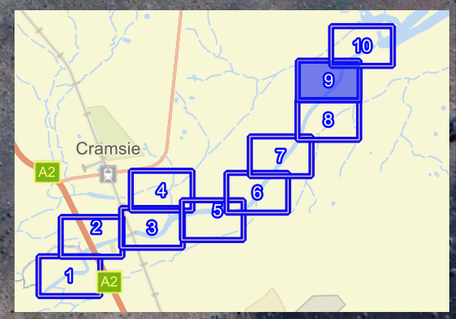
Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 8 of 10

LEGEND

- Watercourse
- Project full supply level

Thomson River



NGH

0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 9 of 10

LEGEND

- Watercourse
- Project full supply level

Thomson River

Cramsie

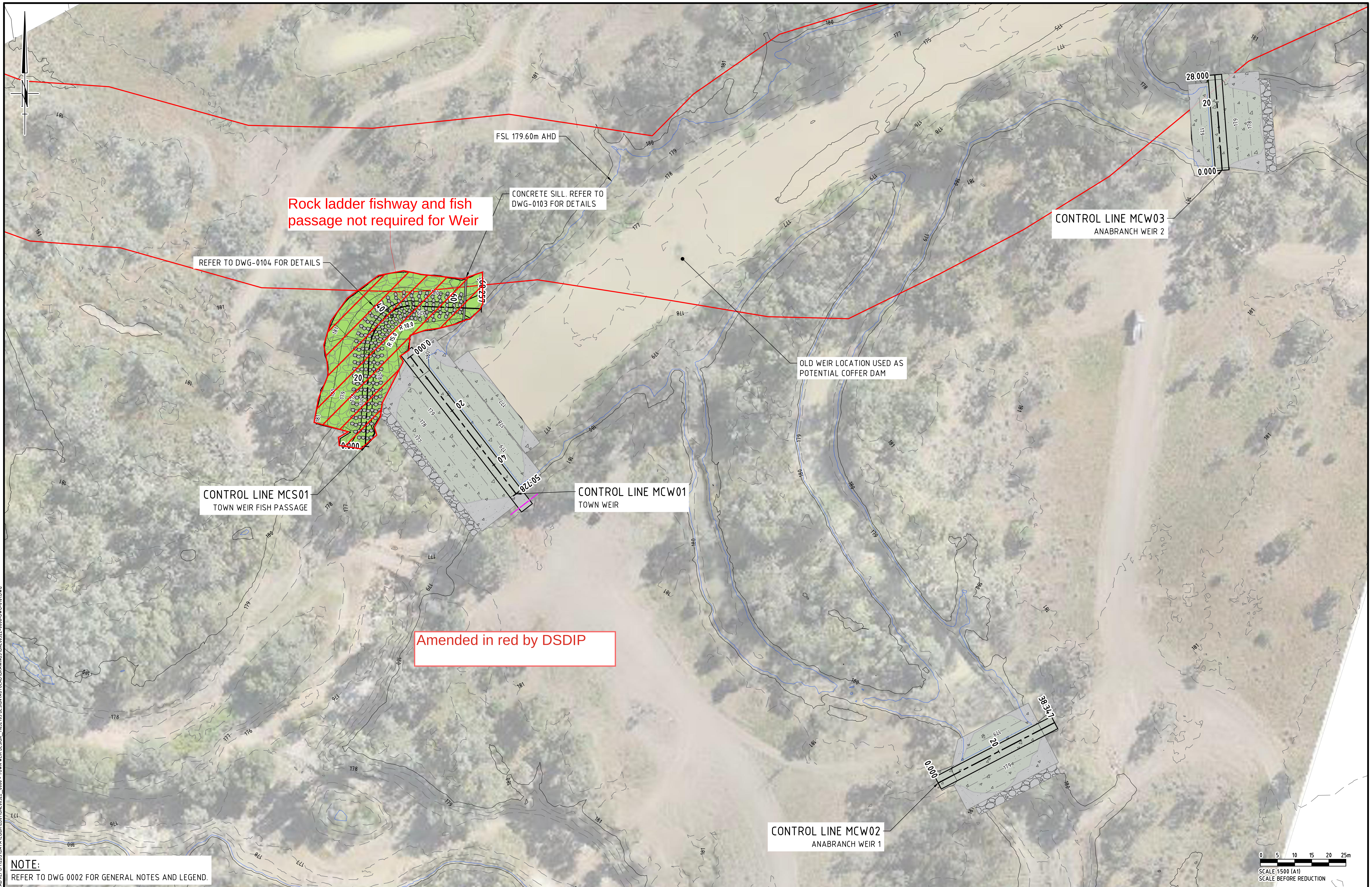
A2

1 2 3 4 5 6 7 8 9 10

0 100 200 m

Thomson River Weir Raising Project

Figure 4-1 Project full supply level
Map 10 of 10



NOTE:
REFER TO DWG 0002 FOR GENERAL NOTES AND LEGEND.

REV	BY	DATE	REVISION DESCRIPTION	PM APPD.
A	DC	28.08.25	30% DESIGN ISSUE	

DOC. NUMBER	DOCUMENT TITLE
REFERENCE DOCUMENTS	

ENGENY
egis GROUP
Ph. 07 3221 7174
Level 3
545 Queen St
Brisbane QLD
www.engeny.com.au

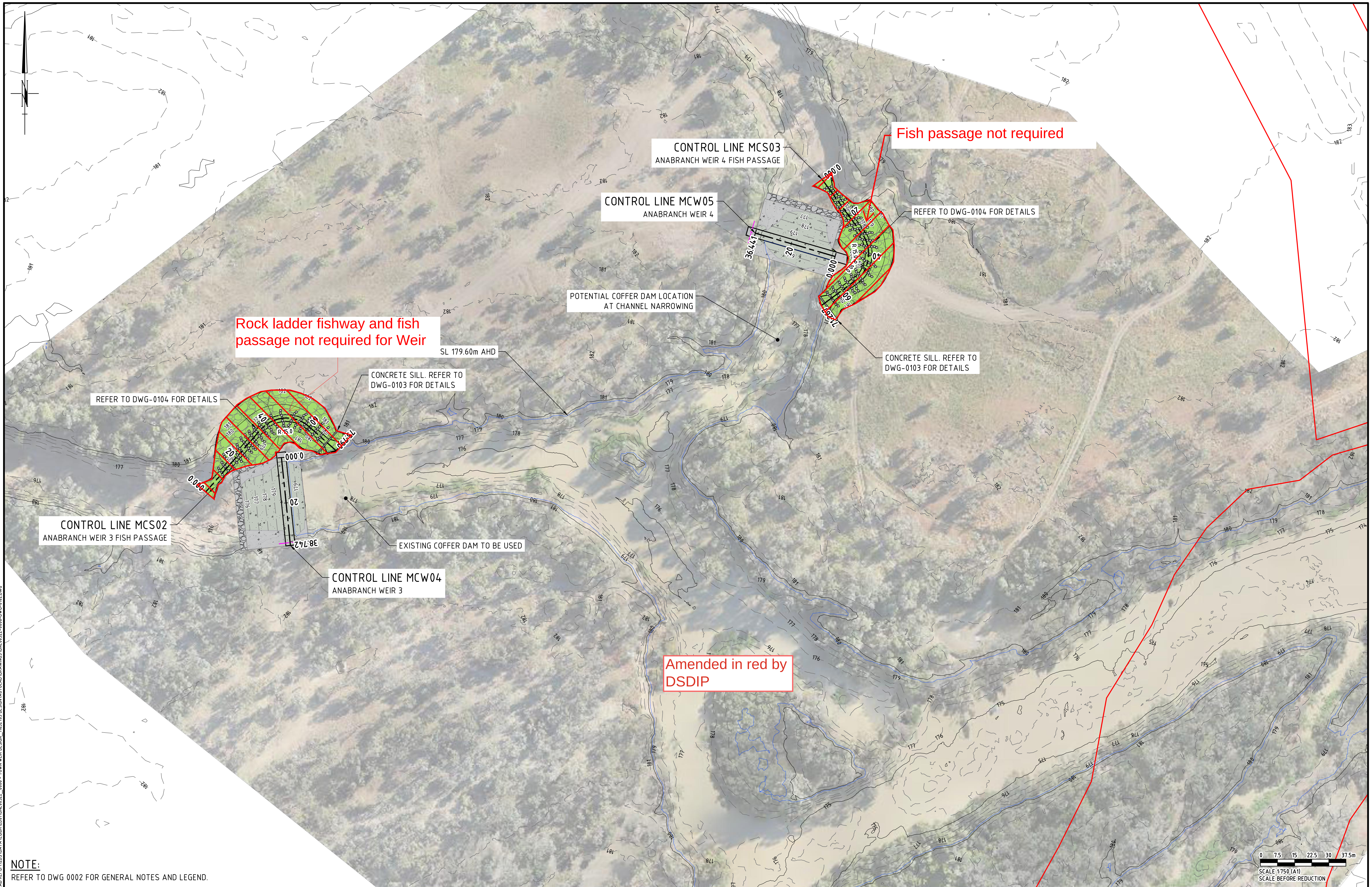
STATUS
NOT FOR CONSTRUCTION

DESIGNED	DC	CHECKED	MT
DRAWN	DC	CHECKED	MT
PM APPD.	TR	PD APPD.	MD
RPEQ		RPEQ No.	

LONGREACH REGIONAL COUNCIL

TOWN WEIR RAISE DESIGN
GENERAL ARRANGEMENT PLAN
TOWN WEIR - ANABRANCH WEIR 1 AND 2

ORIGINAL SIZE: A1
DWG NO.: BNE00322-0008-DWG-0101
REV.: A



NOTE:

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RPEQ		RPEQ No.	

LONGREACH REGIONAL COUNCIL

TOWN WEIR RAISE DESIGN
GENERAL ARRANGEMENT PLAN
ANABRANCH WEIR 3 AND 4

ORIGINAL SIZE: A1 | DWG NO.: BNE00322-0008-DWG-0102 | REV.: A

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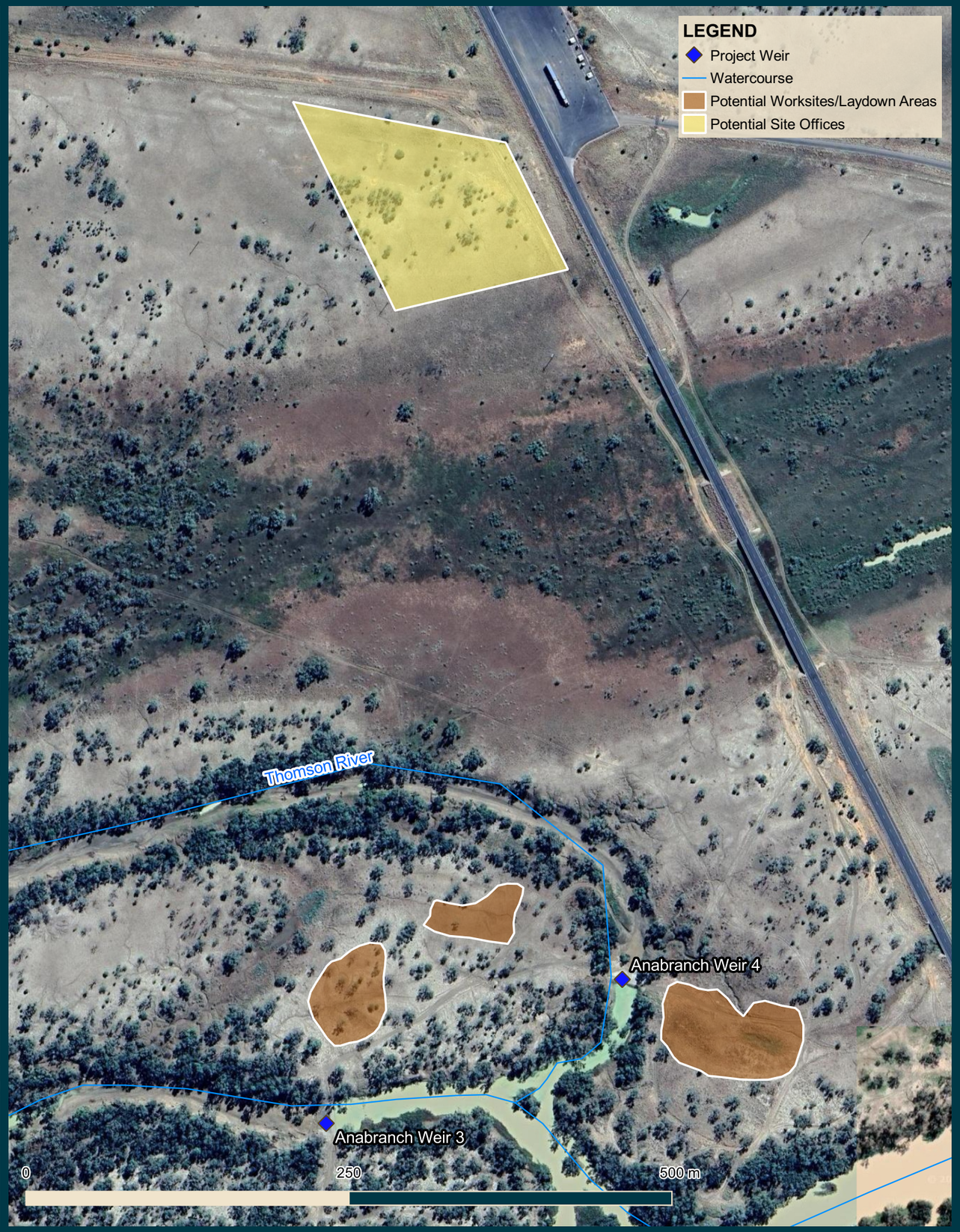
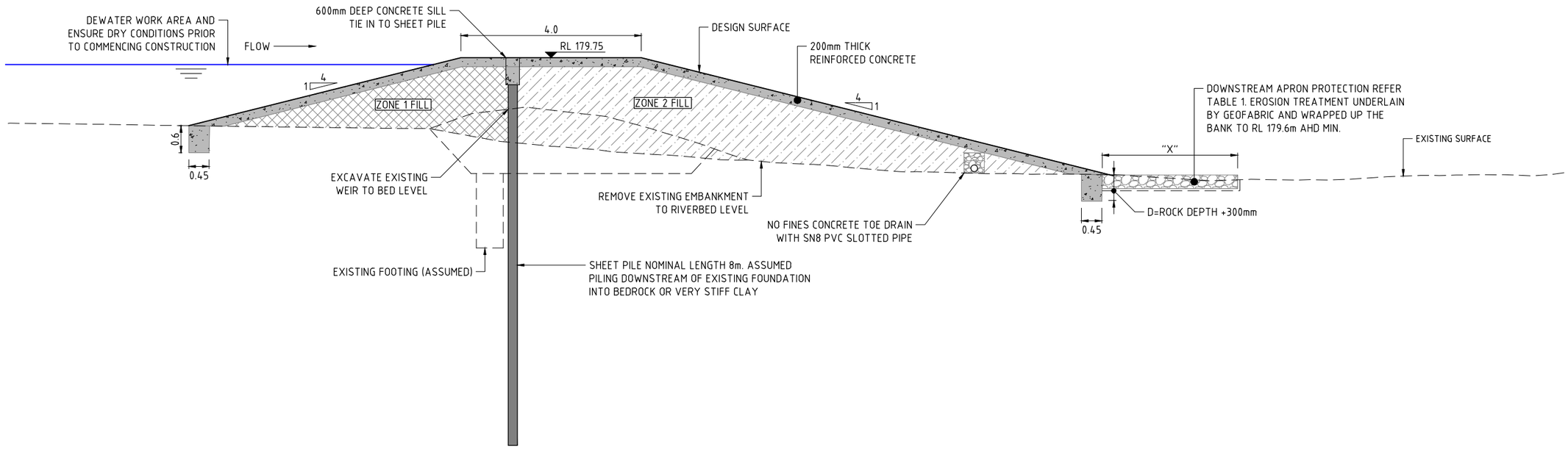


NGH

Thomson River Weir Raising Project

Figure 3-1 Suitable Project sites

Annexure 2 to Schedule 2 – Weir design and construction



TOWN WEIR TYPICAL CROSS SECTION

SCALE 1:50

TABLE 1 - DOWNSTREAM APRON DETAIL					
LOCATION	TOWN WEIR	ANABRANCH 1	ANABRANCH 2	ANABRANCH 3	ANABRANCH 4
TYPE	RENO MATTRESS	RIP RAP APRON	RIP RAP APRON	RIP RAP APRON	RIP RAP APRON
LENGTH "X"	5m	3m	3m	3m	3m
THICKNESS	300mm	600mm	900mm	900mm	900mm
ROCK SIZE (D50)	D_{50}=100mm100mm	D_{50}=300mm	D_{50}=450mm	D_{50}=450mm	D_{50}=450mm

LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- FULL SUPPLY LEVEL (RL 179.6m AHD)

NOTE:

REFER TO DWG 0002 FOR GENERAL NOTES AND LEGEND.

0 0.5 1.0 1.5 2.0 2.5m
SCALE 1:50 (A1)
SCALE BEFORE REDUCTION

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Ph. 07 3221 7174
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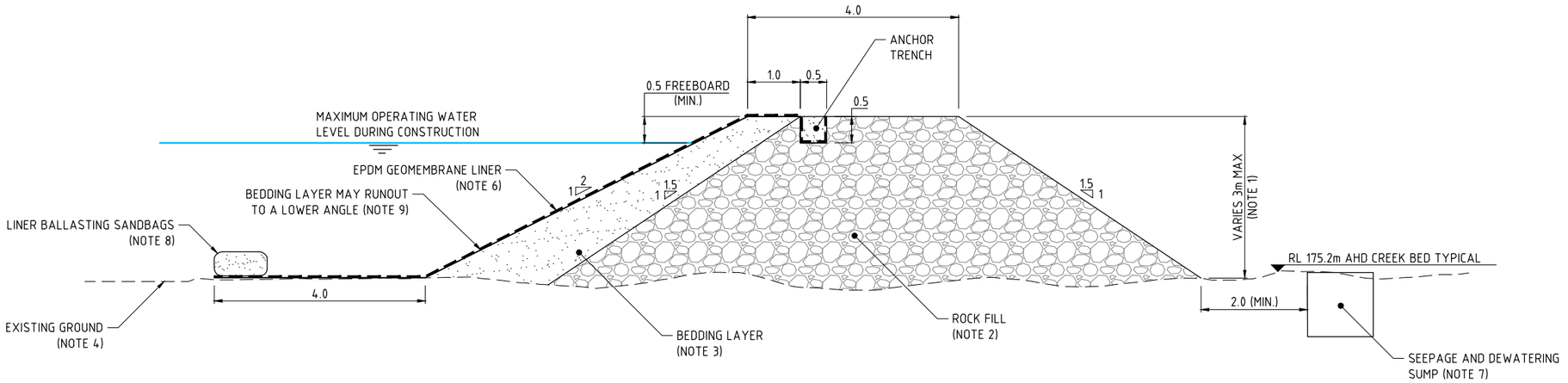
DRAWN	DC	CHECKED	MT	
PM APPD.	TR	PD APPD.	MD	
RPEQ		RPEQ No.		

LONGREACH REGIONAL COUNCIL

TOWN WEIR RAISE DESIGN
TYPICAL SECTIONS AND DETAILS
SHEET 1 OF 4

ORIGINAL SIZE: A1
DWG NO.: BNE00322-0008-DWG-0103
REV.: A



TYPICAL COFFERDAM SECTION

SCALE 1:50

LEGEND

EXISTING SURFACE

DESIGN SURFACE

NOTES:

1. 3m MAX COFFERDAM HEIGHT. FINAL DESIGN HEIGHT WILL BE DEPENDANT UPON OPERATING WATER LEVEL IN THOMSON RIVER UPSTREAM OF COFFERDAM. MINIMUM OF 500m FREEBOARD SHALL BE PROVIDED ABOVE OPERATING WATER LEVEL TO THE COFFERDAM CREST. FINAL COFFERDAM DESIGN SHALL BE APPROVED BY SUPERINTENDENT AND SHALL INCLUDE THE CREST WIDTH, ROCKFILL SIDE SLOPES, MATERIAL TYPES, AND LAYER THICKNESSES AS SHOWN IN THIS DRAWING.
2. ROCK FILL TO BE CONSTRUCTED FROM MATERIAL SALVAGED FROM THE DEMOLITION OF WEIR RIP RAPAND PREFERRED SIZE IS D_{50} 150mm, WITH <300mm MAXIMUM PARTICLE SIZE. ALTERNATIVE SOURCES OF ROCK OR EARTHFILL MAY BE REQUIRED AND MUST BE APPROVED BY THE PRINCIPIAL PRIOR TO USE. CONTRACTOR SHALL MAKE AN ALLOWANCE FOR POTENTIAL LOSS OF MATERIAL IN SILTY CREEK BED.
3. BEDDING LAYER TO BE CONSTRUCTED FROM LOCALLY WON SAND AND/OR FROM A SOURCE APPROVED BY THE SUPERINT6ENDENT.
4. EXISTING GROUND LEVELS AND CONDITIONS ARE INFERRED BASED UPON BATHYMETRY DATA. ACTUAL CONDITIONS MAY VARY.
5. CONTRACTOR SHALL REVIEW COFFERDAM ALIGNMENT AFTER FIELD INSPECTION OF SURROUNDING INFRASTRUCTURE AND ACCESS. FINAL COFFERDAM LAYOUT AND DESIGN TO BE APPROVED BY SUPERINTENDENT.
6. 1mm THICK EPDM GEOMENBRANE LINER TO COVER BEDDING LAYER. WHERE LINER CANNOT BE WELDED A 2m OVERLAP (MINIMUM) IS REQUIRED. OVERLAPS SHALL BE FREE OF FOLDS AND GAPS.
7. CONTRACTOR RESPONSIBLE FOR DESIGN, SETUP AND OPERATION OF A SEEPAGE RETICULATION AND DEWATERING SYSTEM INCLUDING SUMP AND PUMP SIZING. DEWATERING SYSTEM SHALL PROVIDE DRY AND SUITABLE WORKING AREA.
8. LINER SHALL BE BALLASTED IN CREEK WITH MINIMUM OF SINGLE ROW OF CONTINUOS SANDBAGS/ CONTRACTOR SHALL PROVIDE ALLOWANCE FOR ADDITIONAL SANDBAGS AND ADD AS NEEDED TO SECURE LINER.
9. BEDDING LAYER MAY RUNOUT AT A LOWER (FLATTER) ANGLE THAN UNDERLYING ROCKFILL. CONTRACTOR SHALL MAKE AN ALLOWANCE FOR POTENTIAL RUNOUT AND LOSS OF MATERIAL IN SILTY CREEK BED.

0 0.5 1.0 1.5 2.0 2.5m
SCALE 1:50 (A1)
SCALE BEFORE REDUCTION

REV	BY	DATE	REVISION DESCRIPTION	PM APPD
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RPEQ		RPEQ No.		

LONGREACH REGIONAL COUNCIL

TOWN WEIR RAISE DESIGN
COFFER DAM TYPICAL SECTION
SHEET 4 OF 4

ORIGINAL SIZE: A1
DWG NO.: BNE00322-0008-DWG-0106
REV.: A

Annexure 3 to Schedule 2 – Bushfire Management

3.5. Bushfire hazard assessment conclusions and recommendations

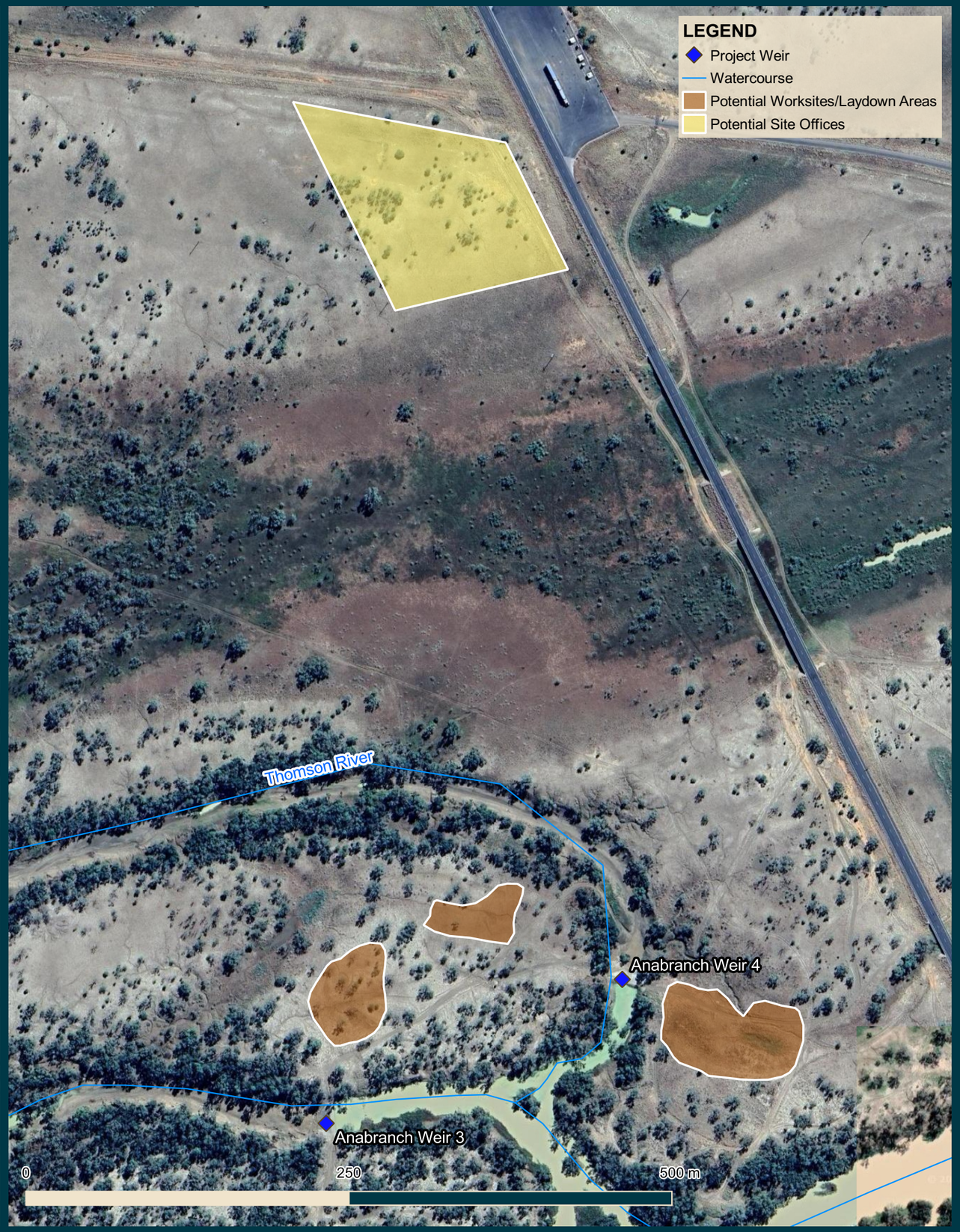
Overall, the desktop and site assessments did not identify significant bushfire hazards at a landscape level in the Project area and surrounds, and therefore no exclusion zones have been identified.

Project construction activities were assessed to be a potential source of ignition, with the greatest risk occurring during the bushfire season from June to December. A greatly reduced risk for ignition source/exacerbation from Project construction would be likely if the following recommendations are applied:

- Project equipment/material and structures (e.g. temporary site offices), as well as construction activities (e.g. hot works) will be located with established APZs/adequate buffers.
- Building and structures on site are generally provided in non-combustible material and do not present a significant fire risk.

Overall, vulnerability and tolerability of the Project to bushfire hazard will be reduced through design and management of risk within the Project area by the construction contractor. This will be achieved through assessment of greatest hazards in the landscape, likely bushfire scenarios, and through construction and siting to minimise bushfire hazard from the landscape.

It is expected that following detailed design of the Project, the chosen construction contractor can use this Preliminary BHA in identifying suitable locations for worksites/laydown areas, and temporary site offices and structures.



NGH

Thomson River Weir Raising Project

Figure 3-1 Suitable Project sites