Gladstone Area Water Board

East End Pipeline Project

Planning Report for Material Change of Use within the GSDA - Landing Road Pump Station and Raw Water Pipeline

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Gladstone Area Water Board

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Abbreviations

Abbreviation	Definition
AHD	Australian Height Datum
ASS	Acid sulfate soils
BCPS	Boat Creek Pump Station
BGGTP	Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda People
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
CMD	Coastal management district
CPESC	Certified Professional in Erosion and Sediment Control
CWQIP	Central and Western Queensland Infrastructure Plan
DETSI	Department of Environment, Tourism, Science & Innovation (formally DESI)
DICL	Ductile Iron Cement Lined
DNRM	Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (formally DoR)
DPI	Department of Primary Industries (formally DAF)
DSDIP	Department of State Development, Infrastructure and Planning (formally DSDILGP)
DWATSIP	Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism (formally DATSIP)
EA	Environmental Authority
EDQ	Economic Development Queensland
EE TW pipeline	East End treated water pipeline – between Boat Creek and East End Reservoir
EER	East End Reservoir
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP Act	*Environmental Protection Act 1994*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ERA	Environmental Relevant Authority
ESCP	Erosion and Sediment Control Plan
GAWB	Gladstone Area Water Board
GFP	Gladstone to Fitzroy Pipeline
GSDA	Gladstone State Development Area
Ha	Hectares
HR	High risk
Km	Kilometres
Lat	Latitude
LGA	Local Government Areas
Long	Longitude
LR	Low risk
LR	Landing Road
LR to EDQ RW	Landing Road to Aldoga raw water pipeline
LR TO EDQ RW pipeline	East End raw water pipeline – between Boat Creek pump station and Euro Circuit / Rio Tino mud dam off take
LRPS	Landing Road Pump Station
m	Metres
MCU	Material Change of Use
ML	Megalitres

Abbreviation	Definition
mm	Millimetres
MNES	Matters of National Environmental Significance
MP	Member of parliament
MSCL	Mild steel cement lined
MSES	Matters of State Environmental Significance
OCG	Office of the Coordinator-General
OEMP	Operational Environmental Management Plan
PESCP	Progressive Erosion and Sediment Control Plan
Planning Act	*Planning Act 2016*
PMST	Protected Matters Search Tool
Qld	Queensland
RE	Regional ecosystem
RNTBC	First Nations Bailai Gurang Gooreng Gooreng Taribelang Bunda People Aboriginal Corporation
ROW	Right of Way
RV	Regulated vegetation
RW	Raw water
SDA	State Development Area
SDPWO Act	*State Development and Public Works Organisation Act 1971*
SMP	Species Management Plan
SPP	*State Planning Policy 2017*
TEC	Threatened ecological community
The Project	LRPS and LR to EDQ RW pipeline
TMR	Department of Transport and Main Roads
TW	Treated water

1. INTRODUCTION

The Gladstone Area Water Board (GAWB) is a bulk water service provider based in Gladstone, Central Queensland. GAWB provides raw water (RW) and treated water (TW) to power stations and heavy industry in and around Gladstone, and TW to the Gladstone Regional Council for municipal water supply.

The East End TW pipeline (EE TW pipeline) services Gladstone Regional Council's Mount Larcom Reservoir, Rio Tinto Alcan Yarwun's Residue Management Area, Fortescue Future Industries' Green Electrolyser Facility, Cement Australia's East End Mine and is the only TW supply to the Mt Larcom township. The TW supply is fed from the existing GAWB Boat Creek Pump Station (BCPS) to East End Reservoir (EER).

Installed in 1981, the EE TW pipeline comprises 22.4 km of Ductile Iron Cement Lined (DICL) and Asbestos Cement (AC) pipeline. The AC pipeline is present from the BCPS to Cement Australia and from East End Mine to the EER. The BCPS is gravity supplied by Mt Miller Reservoir, via 3.5 km of DICL pipeline. As the only pipeline delivering water along this alignment, most customers use the TW for RW purposes.

The existing TW pipeline is at end of life. The asset has aged and ground conditions have contributed to the deterioration. The TW pipeline has incurred 39 failures in the past 13 years, as many as 13 failures have occurred within the past 24 months.

With the onset of new customers associated with hydrogen production, an increased demand for RW exceeding the capacity of the EE TW pipeline is forecast. GAWB has elected to install a new RW pipeline from BCPS to the EDQ Connection at Aldoga and replace the EE TW pipeline with a new pipeline for its entire length. The RW pipeline is referred to as the 'Landing Road (LR) to EDQ RW pipeline'. Due to the elevation change between Landing Road and Aldoga, the new RW pipeline requires a pump station to enable the RW delivery. A location for a pump station has been selected at Landing Road, Yarwun and is referred to as the Landing Road Pump Station (LRPS).

The introduction of the LR to EDQ RW pipeline to the Gladstone State Development Area (GSDA) will permit the transfer of industrial customers utilising high value treated water to raw water.

The subject of this Planning Report is the LR to EDQ RW pipeline and LRPS, collectively referred to as the Project'.

The LRPS location is presented in Figure 1. The LR to EDQ RW pipeline is presented in Figure 2.

Figure 1
Land Road Pump Station

Gladstone Area Water Board

DSP106109
3SP239337
1RP614039
FSP147725
Fishermans Road
2SP200899
1SP200852
BRP620742
31SP253027
BMPH33364
1SP200899
ACTN2165
DSP106109
Landing Road
CMPH32673
ARP616904
AMPH32414
Boat Creek Road
Land Road Pump Station
2SP250625
130CTN1912
Boat Creek
Gladstone Mount Larcom Road

151°8'36"E 151°8'38"E 151°8'40"E 151°8'42"E 151°8'44"E 151°8'46"E 151°8'48"E 151°8'50"E 151°8'52"E 151°8'54"E 151°8'56"E 151°8'58"E 151°9'0"E 151°9'2"E

23°48'50"S 23°48'52"S 23°48'54"S 23°48'56"S 23°48'58"S 23°49'0"S 23°49'2"S 23°49'4"S 23°49'6"S 23°49'8"S 23°49'10"S

Legend

- Access track to Land Road Pump Station
- Fence line

Land Road Pump Station footprints

- Construction footprint (0.25 ha)
- Operational footprint (0.10 ha)

DCDB

- Cadastral Boundary
- Road Casement
- Watercourse
- Easement

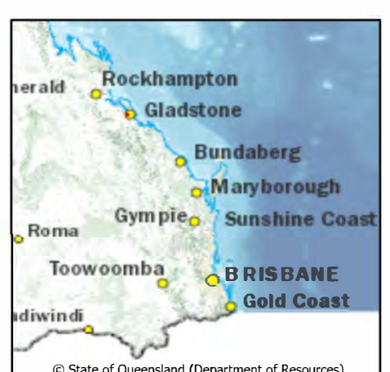
0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Prepared on: 19/11/2024

Coordinate System: GDA2020
Datum: GDA2020
Units: Degree



Path: C:\EvolveGeoSpatial\GladstoneAreaWaterBoard\WR_0044\Figure 1 Land Road Pump Station.aprx

Figure 2
GAWB Raw water pipeline

Gladstone Area Water Board

Mount Larcom
Yarwun
Land Road Pump Station
Boat Creek
Sandy Creek
Aldoga Reservoir
Euroa Circuit
Rio Tinto connection
Mount Sugarloaf
Yarwun
Calliope
Pyealy

Legend

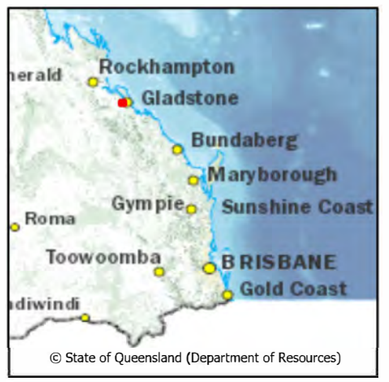
- GAWB Raw Water Pipeline
- Euroa Circuit

0 0.5 1 1.5 2

Kilometres
Scale: 1:35,000 @ A3

Prepared on: 13/11/2024

Coordinate System: GDA2020
Datum: GDA2020
Units: Degree



Path: C:\EvolveGeoSpatial\GladstoneAreaWaterBoard\WR_0044\Figure 3 GAWB Raw water pipeline.aprx

1.1 About GAWB

GAWB is a Queensland Government statutory Water Authority with the purpose of ensuring the short and long term water needs of current and future customers are met in ways that are environmentally, socially and commercially sustainable.

On 1 October 2000, GAWB commenced operations as a Category 1 commercialised Water Authority under the *Water Act 2000* (Qld). From the 1st of July 2008, GAWB became a registered service provider under the *Water Supply (Safety and Reliability) Act 2008* (Qld). GAWB is responsible to Ms Ann Leahy MP, Minister for Local Government and Water.

1.2 Purpose of this Report

The purpose of this Planning Report is to provide supporting information required for assessment of the SDA Application (MCU) within the GSDA. Particularly, this report pertains to the proposed LRPS and ancillary infrastructure over land described as Lot 2 on SP250625 and the LR to EDQ RW water pipeline which traverses the following Lots: 130CTN1912, 2SP250625, 31SP253027, 32SP253027, 27RP619929, 31SP129157, 25SP115226, 23SP115225, 13RP620157, 13RP620157, 20SP115224, 21SP115224, 21SP115224, 3SP260764, 7SP177782 located within the GSDA.

This SDA (MCU) application has been prepared in accordance with the *State Development and Public Works Organisation Act 1971* (SDPWO Act) and the GSDA Development Scheme (May 2022). Its aim is to assist the Office of the Coordinator-General (OCG) and relevant referral agencies in the assessment of the application. In summary, the following information is provided in this Planning Report:

- Background
- Subject land and locality details
- Statutory considerations for the project
- Development details
- An assessment of the developments' consistency with the objectives and land use designations of the Development Scheme for the GSDA
- Identification of potential impacts and proposed solutions/management plans to manage adverse impacts.

1.3 Development Application Details

This SDA application (MCU) is for a use defined as "utility installation" within the GSDA Development Scheme. It should be acknowledged that utility installation includes land used to provide the supply or treatment of water.

Specifically, this SDA application (MCU) is for a raw water pipeline, pump station and ancillary infrastructure.

The proponent and application details are summarised in Table 1.1. In addition, the following is provided as part of the SDA application (MCU):

- Landowner consent (refer to Appendix 11.1)
- Fee of $7,609 payable by GAWB (refer to Appendix 11.8 below**Error! Reference source not found.**).

Table 1.1 ***Proponent and Application Details***

Item	Description
Applicant	Gladstone Area Water Board
Property Details	130CTN1912, 2SP250625, 31SP253027, 32SP253027, 27RP619929, 31SP129157, 25SP115226, 23SP115225, 13RP620157, 13RP620157, 20SP115224, 21SP115224, 21SP115224, 3SP260764, 7SP177782

Item	Description
Name of Landowner	• Economic Development Queensland, Office of Coordinator General & CW & MA Butler Super Pty Ltd • Refer to landowner consent in Appendix B • Refer to the title search in Appendix D
Current Land Use	Native vegetation and multiple easements
GSDA Precinct	GSDA - Materials Transportation and Services Corridor Precinct
Development Details	Construction of utility infrastructure, namely a raw water pump station and construction of a raw water pipeline within existing GAWB water pipeline easement
Development Assessment	MCU in accordance with the SPDWO Act and the Gladstone SDA Development Scheme. The proposed development is identified as a “utility installation” use that is consistent with the preferred development intents and the assessment criteria within the GSDA Development Scheme.
Assessment Manager	Office of Coordinator-General
State interests	MCU development approval - SDA assessable development within the precinct - to develop the Landing Road Pump Station and raw water pipeline.
Contact details for application	GAWB – Trent Williams (Approvals Project Manager – EEPL) 147 Goondoon Street, Gladstone, QLD, 4680 Phone: 0467 769 429 Email: twilliams@gawb.qld.gov.au

2. BACKGROUND

2.1 Overview of Project and Proposed Use

Currently there is no raw water supply, and a limited treated water supply, into the Aldoga area. New industrial development is being progressed that will require a significantly enlarged water supply.

The LRPS is intended to pump raw water to Aldoga via the augmented raw water network at Yarwun, pumping approximately 8.7 km west to the new raw water reservoir in Aldoga. There is a significant elevation difference between Yarwun to Aldoga which necessitates the need for pumping.

The LRPS is located off Landing Road, adjacent to Cleanaway Gladstone - Industrial Waste Services, on Lot 2 SP 250625 which is owned by EDQ. The site adjoins the existing easement for the EE TW pipeline.

The EE TW pipeline is an existing easement of approximately 18 m in width. The LR to EDQ RW pipeline and its construction will be contained fully within the existing easement. The existing EE TW pipeline will be removed and the trench utilised for the installation of the RW pipeline.

Construction of the LRPS and LR to EDQ RW pipeline is intended to commence in quarter two 2025.

2.2 Use Being Applied For

No person may carry out a MCU in the GSDA without the approval of the Coordinator-General. A MCU is:

- The start of a new use of the premises
- The re-establishment on the premises of a use that has been abandoned
- A material change in the intensity or scale of the use of the premises.

It is considered that the proposed LRPS within the GSDA constitutes the start of a new use and the material increase in the intensity and scale of the use of the premises.

The application is to be assessed against the objectives of the GSDA Development Scheme, including the preferred development intent of the applicable land use precinct within which the use is located, as well as the overall assessment criteria of the Scheme.

The RW pipeline is consisted Operational Works exempt pursuant to Section 1.3.2, 1(c) of the GSDA Development Scheme. For completeness in considering the application for the LRPS, the LR TO EDQ RW pipeline has been included in this application. The LR TO EDQ RW pipeline will be placed within the existing trench of the EE pipeline and therefore has no impact on vegetation.

2.3 State Interest and referral triggers

The application is to identify the referral triggers under the *Planning Act 2016* and referral entities for the application as per Schedule 2, Section 2.1 of the GSDA Development Scheme. The following state interests and referrals are associated with the Project:

- MCU development approval - SDA assessable development within the precinct
- MCU for development of the LRPS, access road and underground RW pipeline
- Referral for a MCU development approval in the Master Plan for the Priority Port of Gladstone area
- Protected Plants Clearing Exemption Notification in accordance with the *Nature Conservation Act 1992*
- Species Management Program.

Further information related to State interests and statutory considerations is provided in Section 5.

2.4 Public Consultation

During the application stage, the Coordinator-General is to decide if the SDA application requires public consultation in accordance with the Public Consultation Policy State Development Areas (State of Queensland, Coordinator-General, 2021) which applies to the GSDA. In accordance with Schedule 2, 2.3 Public Consultation Stage (1) of the GSDA, Public Consultation applies unless:

a) the application is for development for reconfiguring a lot or operational works for the clearing of native vegetation where identified in an SDA application for a material change of use or reconfiguring of a lot, or

b) the application is for a material change of use for a defined use that supports the preferred development intent of the relevant development precinct and is not located on Curtis Island, or

c) the Coordinator-General gave notice to the proponent during the application stage that the public consultation stage does not apply to the application.

The LRPS and the LR to EDQ RW pipeline are located within the Materials Transportation and Services Corridor Precinct and are considered a preferred use in the precinct. Therefore, public consultation is not required for this application.

3. SUBJECT LAND AND LOCALITY

3.1 Location

The proposed LRPS is located off Landing Road, adjacent to Transpacific / Cleanaway, on Lot 2 SP250625 owned by EDQ.

The LR to EDQ RW pipeline will be located within the existing EE TW pipeline easement which crosses 15 separate lots and several road parcels between Yarwun and Aldoga (refer Appendix B).

3.2 Existing Land Use

Lot 2 SP250625 is currently vacant land. The current land use of the allotment is defined as 'grazing native vegetation'. There are no existing rights of the property described under the GSDA Development Scheme.

Lot 2 SP250625 is located with the Materials Transportation and Services Corridor Precinct under the GSDA.

The LR to EDQ RW pipeline is within an existing easement and its installation and operation is permissible under the existing easement terms. The easement is within the Materials Transportation and Services Corridor Precinct.

3.3 Surround Land Use

3.3.1 *Landing Road Pump Station*

The proposed LRPS location is surrounded by existing high impact industries as detailed in the table 3.1.

Table 3.1 ***LRPS neighbouring activities***

Lot on Plan	Direction	Land use
1 SP200852	Northwest	Cleanaway Gladstone - Industrial Waste Services
3 SP239337	Northeast	Northern Oil Refinery
Landing Road	East	GRC road
Gladstone Mt Larcom Road	South	TMR road
8 SP218634	South of Road	Yarwun Alumina Refinery
31 SP253027	West	Butlers Yarwun Quarry

3.3.2 *Raw water pipeline*

The LR to EDQ RW pipeline is within the existing EE TW pipeline easement. The easement is located within the GSDA Materials Transportation and Services Corridor Precinct and is surrounded by various land users including gravel extraction, grazing, public roads, and rail.

3.4 Existing Infrastructure

The LRPS (lot 2 SP250625) is burdened by five (5) easements (refer Figure 3) and Table 3.2.

Table 3.2 Easements on Lot 2SP250625

Easement Number	Benefiter	Use	Proximity to LRPS
A MPH32414	Capricornia Electricity Board	Electricity	Approx. 94m
C MPH32673	GAWB	Water	Parallel to LRPS
B MPH33364	Queensland Cement and Lime Company Limited	Slurry pipeline (discussed and subject to Closure Plan)	Located within the GAWB EE TW pipeline easement
D SP106109	Alinta DQP Pty Ltd (PPL30)	Gas	Approx. 297m
F SP147725	N/A		Approx. 472m

3.5 Community Values

The proposed LRPS is located on vacant land, therefore there are no direct community values at the site. The location is abutted by other infrastructure (e.g. roads, water, gas and electrical easements) and is in an area where larger industry is presented, such as the Yarwun Alumina Refinery. The closest township is Yarwun located approximately 3.5 km southwest. Given the location falls within the GSDA and is in a generally industrial area, the community value and sensitivity of the proposed activities is considered as low.

The raw water pipeline is buried infrastructure within an existing easement. There is no direct community impacts from its operation.

4. ENVIRONMENTAL AND CULTURAL HERITAGE VALUE

This section outlines the environmental and cultural values pertaining to the Site.

4.1 Land

Soils

The soil on the LRPS site is described as Duplex yellow-grey, hard setting A horizon, A2 horizon conspicuously bleached, and acid pedal mottled B horizon.

Acid sulfate soils (ASS) typically occur on land that is below 5 m Australian Hight Datum (AHD) or on land below 20 m AHD where excavation to below 5 m AHD may be undertaken. The elevation of the Site is approximately 20m and is mapped as a risk of ASS for 5-20m AHD.

Contaminated Land

Lot 2 on SP250625 is not listed on the Contaminated Land Register and/or the Environmental Management Register (EMR). The Site is adjacent to parcel of land under a prescribed ERA.

Two lots adjacent to the LR to EDQ RW pipeline are listed on the EMR. This lots are not impacted as part of the project.

Table 4.1 ***Environmental Management Register***

Lot and Plan	Address	EMR Listing
91/SP122250	North Coast Rail Line (NCRL)	The Site has been subject to the following Notifiable Activity: RAILWAY YARDS – Operating a railway yard including goods-handling yards, workshops, and maintenance areas.
1/SP144430	293 MYLREA ROAD ALDOGA QLD 4694	WASTE STORAGE, TREATMENT OR DISPOSAL - storing, treating, reprocessing or disposing of regulated waste (other than at the place it is generated), including operating a nightsoil disposal site or sewage treatment plant where the site or plant has a design capacity that is more than the equivalent of 50, 000 persons having sludge drying beds or on-site disposal facilities. ABRASIVE BLASTING - carrying out abrasive blast cleaning (other than cleaning carried out in fully enclosed booths) or disposing of abrasive blasting material. CHEMICAL MANUFACTURE OR FORMULATION - manufacturing, blending, mixing or formulating chemicals if - the chemicals are designated dangerous goods under the dangerous goods code; and the facility used to manufacture, blend, mix or formulate the chemicals has a design production capacity of more than 1 t per week. CHEMICAL STORAGE - (other than petroleum products or oil under item 29) - storing more than 10 t of chemicals (other than compressed or liquefied gases) that are dangerous goods under the dangerous goods code. COAL FIRED POWER STATION - operating a coal fired power station. ELECTRICAL TRANSFORMERS - manufacturing, repairing or disposing of electrical transformers. METAL TREATMENT OR COATING - treating or coating metal including, for example, anodising, galvanising, pickling, electroplating, heat treatment using cyanide compounds and spray painting using more than 5 L of paint per week (other than spray painting within a fully enclosed booth). MINERAL PROCESSING - chemically or physically extracting or processing metalliferous ores.

4.2 Hydrology and Coastal

Waterways

The LRPS and LR to EDQ RW pipeline intersect several *Fisheries Act 1994* waterways (refer Figure 4). Schedule 7, Part 3, Section 6 of the Planning Regulation 2017 identifies operational work for waterway barrier works as accepted development where the work complies with the requirements of the Accepted Development Requirements (ADR). Temporary waterway barrier works can be undertaken without a Development Permit when compliance is achieved with the ADR. Where compliance with the ADR cannot be achieved, a Development Permit would be required. The key compliance item in the ADR relates to the duration of the works in the waterway, being:

- 180 days for red and purple waterways
- 360 days for amber and green waterways

The desktop assessment identified that the Project Area intersects mapped watercourses of the following categories:

VM Act Stream Order 1 – these are minor watercourses intersecting the easement in multiple locations. Six (6) Stream Order 1 waterways pass through the Project Area. These watercourses are mapped as MSES Regulated Vegetation (defined watercourse).

VM Act Stream Order 2 – Three (3) Stream Order 2 watercourses were mapped as (MSES) and are classified as Regulated Vegetation (defined watercourse).

VM Act Stream Order 3 – One (1) Stream Order 3 watercourse intersects the centre of the Project Area. These watercourses are mapped as MSES Regulated Vegetation (defined watercourse).

VM Act Stream Order 4 – One (1) Stream Order 4 watercourse intersects towards the eastern end of the Project Area. These watercourses are mapped as MSES Regulated Vegetation (defined watercourse).

Figure 3
Easements on 2SP250625

Gladstone Area Water Board

ASP250625
ESP116554
3SP239337
71RP801113
FSP147725
1RP614039
1SP200852
Fishermans Road
2SP200899
BMPH33364
Queensland Cement and Lime Company Limited
FSP147725
N/A
BRP620742
CMPH32673
GAWB
ACTN2165
1SP200899
Landing Road
1MPH32292
CMPH32673
BMPH33364
ARP616904
AMPH32414
Boat Creek Road
Land Road Pump Station
130CTN1912
31SP253027
2SP250625
DSP106109
Alinta DQP Pty Ltd
ACTN2166
Boat Creek
Gladstone Mount Larcom Road
AMPH32414
Capricornia Electricity Board
DSP106109
BSP106108
145CTN2170
UCTN801047
8SP218634
TCTN801046
CRP614883
BRP614425
Road
SCTN801048
9SP169989
RRP801045
144CTN2170
BSP200885

Legend

- GAWB Raw Water Pipeline
- Fence line
- Easements on 2SP250625

Land Road Pump Station footprints

- Construction footprint (0.25 ha)
- Operational footprint (0.10 ha)

DCDB

- Cadastral Boundary
- Road Casement
- Watercourse
- Easement

N

0 50 100 150 200

Metres
Scale: 1:4,000 @ A3

Prepared on: 13/11/2024

Coordinate System: GDA2020
Datum: GDA2020
Units: Degree

Path: C:\EvolveGeoSpatial\GladstoneAreaWaterBoard\WR_0044\Figure 2 Easements on 2SP250625.aprx

Figure 4
Mapped waterways

Gladstone Area Water Board

Mount Larcom
Yarwun
Land Road Pump Station
Boat Creek
Sandy Creek
Aldoga Reservoir
Euroa Circuit
Rio Tinto connection
Mount Sugarloaf
Yarwun
Calliope
Pyealy

Legend

Mapped waterways

- 1
- 2
- 3
- 4
- 5
- GAWB Raw Water Pipeline
- Euroa Circuit

N

0 0.5 1 1.5 2

Kilometres
Scale: 1:35,000 @ A3

Prepared on: 19/11/2024

Coordinate System: GDA2020
Datum: GDA2020
Units: Degree

Path: C:\EvolveGeoSpatial\GladstoneAreaWaterBoard\WR_0044\Figure 4 Mapped waterways.aprx

Wetlands

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters Search Report (PMST) identified no national or internationally important wetlands in the immediate vicinity of the Project (refer to Appendix 11.4). The Port Curtis Nationally Important Wetland is approximately 1.6 km from the Site. The DES Map of Great Barrier Reef Wetland Protection Areas and Map of Queensland Wetland Environmental Values identifies that no mapped wetlands are present on the Project. Indirect impacts may occur, refer to Section 7 for further information.

Groundwater

The nearest registered groundwater bores to the LRPS are associated with sub-artesian monitoring for the Transpacific / Cleanaway site approximately 200 m from the Site (State of Queensland, 2024). The proposed LRPS will not impact on any existing groundwater bores.

A register bore (RN122949) is located within the easement. GAWB will engage with the bore owner prior to activities commencing.

Coastal

The Project is not located within a Coastal Management District (CMD) with no associated coastal hazards including erosion prone areas, and medium and high storm tide inundation area as defined under the *Coastal Management and Protection Act 1995*.

4.3 Ecological Values

Regulated Vegetation

An ecological assessment is attached as Appendix 11.4.

The Project Area was predominantly classified as Category X, which is generally exempt from requirements under the vegetation management regulations. As the Project Area aligns with the previously cleared easement, the majority of impacts are confined to non-remnant vegetation (refer to Appendix 11.4). Patches of Category R vegetation, identified as regrowth watercourse vegetation, were present in the desktop mapping in the central and western sections of the Project Area, corresponding to the identified waterways. Additionally, scattered occurrences of Category C high-value regrowth vegetation were mapped throughout the Project Area, indicative of vegetation encroachment onto the previously cleared easement. A vegetation management report covering all properties intersecting the Project Area is provided in Appendix 11.4.

Table 4.2 Mapped regional ecosystems within the Project Area

Regional ecosystem	Description	VM Act Status
12.11.6	Corymbia citriodora subsp. variegata, Eucalyptus crebra woodland on metamorphics +/- interbedded volcanics.	Least Concern
12.3.3	*Eucalyptus tereticornis* woodland on Quaternary alluvium.	Endangered
12.11.7	Eucalyptus crebra woodland on metamorphics +/- interbedded volcanics.	Least Concern
12.11.4	Semi-evergreen vine thicket on metamorphics +/- interbedded volcanics.	Of Concern
11.3.29	Eucalyptus crebra, E. exserta, Melaleuca spp. woodland on alluvial plains.	Least Concern
11.3.4	*Eucalyptus tereticornis* and/or *Eucalyptus spp*. woodland on alluvial plains.	Of Concern

11.3.26	*Eucalyptus moluccana or E. microcarpa woodland to open forest on margins of alluvial plains.*	Least Concern
11.3.25	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines.	Least Concern
11.11.15	*Eucalyptus crebra* woodland to open woodland on deformed and metamorphosed sediments and interbedded volcanics.	Least Concern
11.11.18	Semi-evergreen vine thicket on old sedimentary rocks with varying degrees of metamorphism and folding.	Endangered
11.11.4, 11.11.4c	*Eucalyptus crebra woodland on old sedimentary rocks with varying degrees of metamorphism and folding.*	Least Concern

The LRPS site has been ground truthed as Category B Least Concern Remnant vegetation containing vegetation described as regional ecosystems (RE) 12.11.14 *Eucalyptus crebra, E. tereticornis,Corymbia* intermedia woodland on metamorphics +/- interbedded volcanics (refer Figure 5).

Section 7 provides a discussion of the potential impacts the proposed works may have on existing vegetation during the construction and operational phases.

Threatened Flora Species

Under the protected plants trigger mapping overlay, Lot 2 on SP250625 is not located within a 'high risk' flora trigger area (refer to refer to Appendix 11.4). A protected plants survey in accordance with the DES Flora Survey Guidelines – Protected Plants (2020) is not required.

Section 7 provides a discussion of the potential impacts the proposed works may have on flora species during the construction and operational phases.

Marine Plants

Marine plants are not located on Site. The site elevation is greater than 20 m AHD (outside of coastal areas). The risk of impacts to marine plants is negligible.

Figure 5 – Landing Road Pump Station regional ecosystem

Threatened Fauna Species

A search of the EPBC Act PMST database An updated PMST was conducted over the Project with a 10 km buffer to identify the potential for MNES to occur within the Project Area (refer Appendix 11.4). This PMST search was updated in order to include only the relevant spatial extent of this Project's scope.

This PMST identified 10 threatened ecological communities, 13 EVNT flora species, 56 EVNT fauna species and 61 migratory fauna species (two of which are dual listed as migratory and EVNT) Table 4.2 Protected Matters Search Tool (PMST) provides a summary of the PMST search results.

Table 4.3 Protected Matters Search Tool (PMST) Summary

Matters of National Environmental Significance	
World Heritage Properties	Great Barrier Reef
National Heritage Places	Great Barrier Reef
Wetlands of International Importance	No matters identified
Great Barrier Reef Marine Park	No matters identified
Commonwealth Marine Area	No matters identified
Listed Threatened Ecological Communities	10
Listed Threatened Species	69 (13 plants)
Listed Migratory Species	61

Section 7 provides a discussion of the potential impacts the proposed works may have on habitat and fauna species during the construction and operational phases.

4.4 Protected Areas

The EPBC Act PMST database did not identify any protected areas within 1 km of the Project. There are no other mapped/identified protected areas (such as National Parks) within or in proximity to the Project (State of Queensland, 2024).

4.5 Cultural Heritage and Native Title

There are no Aboriginal or Torres Strait Islander cultural heritage site points or polygons recorded within or adjacent to the Project.

There are no Queensland State heritage places in proximity to the proposed works.

Native title has been extinguished through past land tenure grants and is not impacted by the Project.

4.6 Natural Hazards

The Queensland Government Development Assessment Mapping System (State of Queensland, 2022) and Gladstone Regional Council Planning Scheme mapping (2021) identifies the following:

- The Site is mapped as a Medium Potential Bushfire Intensity hazard area directly adjacent to a High Potential Bushfire Intensity area
- The Site is not mapped within a flood hazard area

Bushfires have the potential to impact works, and there is potential that hot works at the Site may ignite and start a bushfire. Bushfire risks include, but are not limited to, equipment / plant damage and personnel injury or loss of like. During construction fire breaks will be incorporated into the construction

footprint and appropriate emergency management plans will be implemented to identify and manage the risk of bushfire.

During the operational phase fire breaks will be maintained.

Refer to Appendix 11.6 Bushfire Management and Mitigation Plan.

5. STATUTORY CONSIDERATIONS

Table 5.1 provides a summary of Commonwealth, State and local environmental and planning legislation and their applicability to the proposed works at the Site.

Table 5.1 Legislative Requirements and Approval Triggers

Legislation	Agency	Activity Trigger	Applicability	Licence / Permit / Approval Required	Process and Supporting Information	Timeline	Additional Notes for Consideration
Aboriginal Cultural Heritage Act 2003	DATSIP	Require those conducting activities in areas of significance to take all reasonable and practical measures to avoid harming cultural heritage.	**Applicable** Section 23 of the *Aboriginal Cultural Heritage Act 2003* states that a person who carries out an activity must take reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage and should follow the Duty of Care Guidelines.	CHMP and/or agreement. The ongoing nature of determining cultural heritage is acknowledged.	GAWB will engage with the BGGTP.	NA	GAWB is in the process of reviewing and actioning Cultural Heritage requirements. Cultural Heritage Duty of Care Guidelines to apply.
Environment Protection Act 1992	DES	Requiring those conducting Environmentally Relevant Activities (ERA) associated with construction or operation to obtain an Environmental Authority (EA).	**Not applicable**	NA	NA	NA	
Environment Protection and Biodiversity Conservation Act 1999 – Commonwealth	Department of Agriculture Water and Environment	Actions that have or are likely to have a significant impact on a matter of national environmental significance (MNES) require approval for EPBC referral.	**Not applicable**	NA	NA	NA	-

Legislation	Agency	Activity Trigger	Applicability	Licence / Permit / Approval Required	Process and Supporting Information	Timeline	Additional Notes for Consideration
Gladstone Regional Council Planning Scheme	Gladstone Regional Council	Undertaking operational works (excavation or filling) within the LGA.	**Not applicable** The Planning Regulation 2017 states that the Planning Scheme does not apply to operational works for a public sector entity authorised under State Legislation to carry out the work. Therefore, it is considered that a development permit for operational works is not required.	N/A	N/A	N/A	GAWB has undertaken pre-lodgement with Gladstone Regional Council and confirmed that a development permit for operational works is not required.
		Interfering with a local government road.	**Applicable** Access to LRPS will be from a local road.	Works on Road Corridor Permit.	Completion of an Application to carry out works on a council road or interfere with a road or its operation.	1 month	GAWB are currently undertaking pre-lodgement with Gladstone Regional Council to confirm Works of Road Corridor Permit requirements for the Site.
Land Act 1994	DoR	Owners consent requirements for work on state land for certain activities and certain approvals.	**Applicable** The LRPS is on EDQ land.	Owners consent	State forms	1-2 months	Refer to Appendix A
Nature Conservation Act 1992 *Nature Conservation (Wildlife) Regulation 2006*	DETSI	Clearing of protected plants for construction of the proposed works.	**Applicable**	Clearing Permit or Exemption Notification.	A protected plants survey within the clearing impact area plus a 100 m buffer has been completed. The survey was conducted by a suitably qualified person in accordance with the DES	Approval must be sought within one year of undertaking a Protected Plant Survey and construction must commence within 3 years of receiving the clearing approval.	GAWB will apply for either a Clearing Permit or Exemption Notification.

Legislation	Agency	Activity Trigger	Applicability	Licence / Permit / Approval Required	Process and Supporting Information	Timeline	Additional Notes for Consideration
					Protected Plant Survey Guidelines.		
		Tampering with an animal breeding place of a protected animal.	**Applicable**	Species Management Program Damage Mitigation Permit (or other if not held by Fauna Spotter Catcher).	Application for a LR/HR SMP will be lodged.	Up to 3 months	GAWB is in the process of applying for a HR SMP for the EEPL project inclusive of the LRPS
State Development and Public Works Organisation Act 1971	Department of State Development (OCG)	Works within a SDA.	**Applicable** The LRPS, the access road and underground pipeline which intersects the Site, are within the Gladstone SDA and are considered MCU as the use defined as utility installation.	SDA approval (MCU).	This application	3 months	Refer to this application.
State Development and Public Works Act 1971 and Vegetation Management Act 1999	Department of State Development (OCGI) DoR	Clearing of native vegetation assessable under the *Vegetation Management Act 1999*. Schedule 3 – Requirements for SDA self-assessable development	**Applicable** Clearing of vegetation is managed under the GSDA Development scheme. Clearing is self-assessable.	Clearing is self-assessable	This report. Refer section 7.4.5	NA – assessed as compliant with GSDA Development Scheme, Table 10.	Nil

6. DEVELOPMENT DETAILS

The development details pertinent to this Planning Report consists of the LRPS, associated access road and underground pipeline (to the extend it intersects the EE TW pipeline easement) and the LR to EDQ RW pipeline. A summary of the infrastructure and construction methodology is detailed below.

6.1 Landing Road Pump Station

6.1.1 *Description*

The LRPS is likely to have two main pumps in a duty standby arrangement each with a nominal duty of 350 L/s at 80 m head. Motor capacity is of the order of 450 kW with 415 V motors proposed.

A separate low flow (36 L/s) pump set will be installed to enable the initial Stage 1 raw water supply directly to Euroa Circuit, prior to construction of the Mylrea Road Raw Water Reservoir at Aldoga.

A single fully enclosed building with a control room and pump hall will be constructed. The proposed building structure has reinforced concrete (RC) foundations, steel portal frame, and precast RC tilt up walls. A gantry crane in the pump hall will be mounted on the portal frame columns.

Connectivity and road base gravel hardstand pad or RC slab is proposed to facilitate emergency power from a diesel “gen-set”.

No hazardous substances will be stored or used on site during the operation of the pump station.

The concept design drawing is included in Appendix E.

6.1.2 *Site Access*

The LRPS will be accessed from Landing Road, Boat Creek Road via the existing pipeline easements and (mostly unformed) Boat Creek Road road reserve.

The access road is proposed to be unsealed pavement 200 mm thick, approximately 4 m wide by 660 m long, from the Landing Road, Boar Creek to the compound gate.

The proposed compound is estimated at approximately 0.11 ha noting a proposed 5 m buffer from fence to property boundary. GAWB standard chain link security fencing 2400 mm high with powered vehicular gate is proposed. A second side access gate is proposed to allow alternative access to the rear of the site.

The LRPS will have minimal operational staff requirements with typically one vehicle a day accessing the LRPS. The constructed approximate 0.11 ha footprint will accommodate for parking on site.

6.1.3 *Site and office facilities*

During the construction phase, temporary site facilities connected to mains power, supplied from Ergon, will be established.

Domestic potable water for personnel washrooms and toilets will be purchased from Gladstone Regional Council, trucked to the Site and stored in tanks. The Site’s temporary sewage waste will utilise a pump out system where waste will be removed and disposed of at an approved Gladstone Regional Council sewage treatment plant.

6.1.4 *Site preparation*

Site preparation works will require the clearing of existing trees and vegetation. The vegetation may be mulched for use in the restoration and landscaping of the Site on completion.

Following clearing, the site will be cut and levelled to the level of the base of pump station pad.

Water for construction will be sourced from Boat Creek Pump Station located approximately 1 km to the east of the Site. An existing pump and standpipe will be utilised to enable water fills from this location.

During Site preparation, environmental controls will be installed, such erosion and sediment controls. The installed controls will be monitored throughout construction until the Site has been stabilised.

6.2 Raw water pipeline

6.2.1 *Description*

The proposed LR to EDQ RW pipeline will be constructed in the existing trench of the decommissioned EE pipeline. The first 8.7 km of the EE pipeline will be removed and disposed of at a registered waste facility. The existing easement is approximately 18 m wide and will not require any clearing of vegetation prior to activities associated with this application being undertaken.

6.2.2 *Construction*

The main stages of the RW pipeline construction are outlined as follows:

- **Survey** – prior to the commencement of construction, the right of way (ROW) will be fully surveyed, and the pipeline centre line will be pegged.
- **Clearing** – clearing of the pipeline construction area involves removal of vegetation (noting that this is an existing easement where vegetation has been removed), rocks and obstructions from the pipeline ROW.
- **Grading** – bulldozers and graders will level the ground in certain areas within the ROW to prepare a safe construction platform.
- **Pipeline removal** – the decommissioned EE pipeline will be dug up and removed from the ROW.
- **Pipeline stringing** – pipes will be delivered to site by truck from stockpile locations adjacent to the ROW and then laid next to the trench on skids (timber blocks like railway sleepers used to keep the pipe off the ground) or sandbags to protect the pipe from damage.
- **Trenching** – the pipeline trench will be increased following the EE pipeline removal generally to be 2 m deep depending on pipeline design and location. Specialist heavy earth moving machinery will be used to excavate the pipeline trench. Topsoil and trench spoil will be stockpiled separately.
- **Pipe laying and backfilling** – appropriate bedding material is required to prepare the trench for pipe laying. Following placement of the bedding the remainder of the trench will be backfilled using trench spoil and finally topsoil.
- **Clean up and rehabilitation –** all areas affected by construction including ROW, work areas, access tracks, and temporary site office areas will be cleaned up and rehabilitated to pre-construction conditions as far as practicable.
- **Pipeline cleaning and testing** – this process occurs at the end of construction to remove debris from the inside of the pipe and test for leaks.

6.2.3 *Site Access*

Access to the ROW is proposed to be via the local and publicly available road network, with access then provided along the ROW.

6.2.4 *Commissioning*

The construction contractor will develop a detailed commissioning plan to manage all aspects of commissioning including the water intake and discharge for wet testing.

The commissioning process will be undertaken in two stages for each section of the pipeline and its associated infrastructure. These include pressure testing and leak testing, i.e. wet testing.

Following the successful commissioning of a particular pipeline section, the water will be stored in the pipeline until the next section is ready for commissioning. It is expected that no water will be discharged.

If for some reason, water will need to be discharged during commissioning, measures will be taken to:

- Minimise the waste volumes of water generated
- Minimise the treated water to be discharged to the environment
- Ensure that the water to be discharged meets the requirements of any relevant guidelines, water quality objectives and the requirements of stakeholders
- Ensure erosion protection measures are in place
- Ensure that treated water meets the requirements of the Operations Manual (GAWB requirements) as soon as possible.

6.2.5 *Rehabilitation*

All areas affected by construction including work areas, temporary access tracks (if required) and temporary site office areas will be cleaned up and rehabilitated to pre-construction conditions as far as practicable. Clean up will include removal of waste material and equipment, compaction relief (particularly on heavily trafficked areas) and profiling to stable contours.

Signs, fences and barriers will be installed where required to prevent unauthorised access to sensitive areas, and to prevent damage. Rehabilitation measures will be conducted according to recommendations in the *Australian Pipeline Industry Association Code of Environmental Practice – Onshore Pipelines Revision 5 2022* and will consider the application of vegetation regeneration and/or revegetation techniques as appropriate. These will encourage the natural regeneration of disturbed vegetation, which may include topsoil replacement, weed management, re-spreading stockpiled vegetation over disturbed area and seed planting to promote soil stabilisation.

The Project's draft Construction Environmental Management Plan (CEMP), provided in 11.5, includes a rehabilitation and revegetation control plan which includes the following measures, to be undertaken progressively as works are staged:

- Recontouring and compaction – this will include monitoring and the re-instatement of any subsidence and other associated works
- Topsoil replacement – topsoil will be stockpiled and replaced after works to enable ground layer species to re-establish
- Weed control – weeds will be managed according to the Contractors' CEMP and relevant control plans.
- Erosion protection – erosion will be managed according to the Contractors' CEMP and relevant control plans
- Revegetation – consistent with surrounding conditions. The vegetation stockpile will be utilised in the rehabilitation process.

The Construction Contractor will develop and finalise a CEMP for approval and implementation that includes, at a minimum, the requirements of the draft CEMP and any additional measures required to address approval conditions.

7. DEVELOPMENT ASSESSMENT

7.1 State Development and Public Works Organisation Act 1971 (SDPWO Act)

The main purpose of the SDPWO Act is to facilitate co-ordinated and environmentally responsible infrastructure planning and development in Queensland. The GSDA Development Scheme, which relates to the Project, is created under Section 77 of the SDPWO Act (refer to Section 7.4).

7.2 State Planning Policy

The *State Planning Policy* (SPP) sets out the State's interests in land-use planning and development across Queensland. The SPP was updated and introduced in 2017 to coincide with the release of the *Planning Act 2016*. The SPP details the matters of State interest in land use planning which enables development, protects our natural environment, and allows communities to grow and prosper. The State interests relevant to the Project are detailed below:

– Liveable communities and housing:
  - Nil.
– Economic growth:
  - Development and construction: Development in a SDA creating jobs and providing water to communities and industry, refer to this application
– Environment and heritage:
  - Biodiversity: MSES – regulated vegetation, refer to Sections 4.3.
  - Cultural heritage: potential for Aboriginal cultural heritage sites or values to be present, CHMP's or agreements will be enacted as required in accordance with the Cultural Heritage Duty of Care Guidelines, refer to Section 4.5
  - Water quality: Water resource catchments
– Safety and resilience to hazards:
  - Natural hazards risk and resilience: Bushfire prone area, refer to Section 4.6
– Infrastructure:
  - Strategic airports and aviation facilities: Wildlife hazard buffer zone
  - wildlife attracting activities are not proposed
  - Strategic ports: Priority ports
  - Priority ports: Gladstone priority port precincts, refer to Section 7.5.

The planning for the proposed LRPS has considered these matters in the likely impacts of the development and proposed mitigations measures, refer to Section 8.

7.3 Central and Western Queensland Infrastructure Plan

The Project is included within the boundaries of the Central and Western Queensland Infrastructure Plan (CWQIP). The Central and Western Queensland Infrastructure Plan (CWQIP) is the first of seven regional infrastructure plans developed to support the implementation of the 2022 State Infrastructure Strategy (SIS).

The CWQIP identifies four strategic regional priorities focusing on traditional and emerging industries, connectivity and liveability to ensure regional businesses maximise opportunities presented by decarbonisation and a changing industrial landscape so that the region remains an attractive place to live, work and visit.

The Project will be directly contribute to the CWQIP vision for the future by providing for future industries harnessing the opportunities of decarbonisation.

7.4 Gladstone State Development Area Development Scheme

The GSDA was declared in 1993. The GSDA Development Scheme is applicable to all development within the GSDA.

The Project is located wholly within the GSDA. The GSDA Development Scheme is the relevant categorising instrument, with the Coordinator-General as the assessment manager.

In accordance with Section 2.1.1(3) of the GSDA Development Scheme, a properly made SDA application will be assessed against the development assessment framework, as outlined in Table 7.1.

Table 7.1 GSDA assessable development assessment framework

Development assessment framework	Relevant section of report
▪ The strategic vision for GSDA	Refer to Section 7.4.1
▪ The overall objectives for development in the GSDA	Refer to Section 7.4.2
▪ The preferred development intent for each development precinct	The Site is located within the Materials Transportation and Services Corridor Precinct. Refer to Section 7.4.3.
▪ SDA-wide assessment criteria	Refer to Section 7.4.4

The following sub-sections provide an assessment of the Project against the relevant framework of GSDA Development Scheme. Note that within the precinct identified, 'utility installation' is defined as an SDA assessable development, therefore, requiring an MCU approval.

7.4.1 *Strategic Vision for the GSDA*

An assessment of the Project against the strategic vision for the GSDA (Section 2.2 of GSDA Development Scheme) is provided in Table 7.2.

Table 7.2 Assessment Against the Strategic Vision for the GSDA

Strategic Vision	Proposal Response
The vision for the GSDA is:	
(a) be Central Queensland's economic powerhouse, with an efficient concentration of large-scale industry of national, State and regional significance that benefit from the SDA's strategic location near the Port of Gladstone and major road and rail networks	**Complies** The Project is located within an ideal location in the GSDA. It will support the existing community and expanding industrial development in Gladstone as there is a growing need to provide a reliable supply of water for growth of current consumers and future demands.
(b) support development that aligns with the Queensland Government's strategic priorities for the region, particularly related to the hydrogen industry.	**Complies** The Project is deemed to 'support development' as it will provide an increased reliability in supply of water to the Gladstone industrial area and hydrogen projects.
(c) maintain environmental, cultural heritage and community values where possible to support wider ecological processes and provide community benefits.	**Complies** A Construction Environmental Management Plan (CEMP) will be implemented to protect and maintain environmental, cultural heritage and community values, as well as values of the GBRWHA. The Project will be operated in accordance with an Operational Environmental Management Plan (OEMP) which will include mitigation of any water quality impacts to the surrounding catchment.

Strategic Vision	Proposal Response
	Refer to Section 8 of this report.
The strategic vision is supported by the overall objectives for development and preferred development intents of development precincts within the Gladstone SDA.	**Complies** Refer to Section 7.4.2.

7.4.2 *Overall Objectives for Development in the Gladstone SDA*

An assessment of the Project against the overall objectives for development within the GSDA (Section 2.3 of the GSDA Development Scheme) is provided in Table 7.3.

Table 7.3 Assessment Against the Overall Objectives

Overall Objectives	Proposal Response
Development within the GSDA will:	
(a) capitalise on Gladstone SDA's strategic location and support the role and function of the Port of Gladstone	**Complies** The Project is fundamental to the continued growth of new industries in Gladstone.
(b) identify and implement opportunities for synergies and co-location between other uses, services and infrastructure to minimise waste and inefficiencies	**Complies** The LRPS is strategically located to abut the existing GAWB easement where a new raw water pipeline will be installed to co-locate with a TW pipeline.
(c) use land and infrastructure efficiently and be adequately serviced by infrastructure	**Complies** The LRPS, as part of the EE pipeline, are proposed to be constructed on EDQ owned land, with immediate connection to the existing EE pipeline. The RW pipeline will be collocated in the existing GAWB TW easement.
(d) ensure the integrity and functionality of the Gladstone SDA, including infrastructure corridors and future development opportunities, is maintained and protected from incompatible land uses	**Complies** The Project will maintain functionality of the GSDA as the infrastructure supports industrial development and consequently does not introduce incompatible uses.
(e) ensure new lots are appropriately sized to accommodate preferred development	**N/A**
(f) be designed, constructed, and operated to a high quality consistent with best practice	**Complies** The Project is a QLD State Government project where a highly competent and experienced contractor will be engaged to construct the pump station and install the raw water pipeline. The design of the pump station and the raw water pipeline will be in accordance with the relevant Australian Standards which require best practice.
(g) avoid impacts on environmental, cultural heritage, and community values (including sensitive land uses), or minimise or mitigate impacts where they cannot be avoided and offset any residual impacts	**Complies** The construction impacts will be managed by reducing the Project footprint where possible, as well as through the implementation of a CEMP. Potential impacts and management associated with the Project are discussed in Sections 8.

Overall Objectives	Proposal Response
	Operational impacts are anticipated to be minor; however, environmental, cultural heritage and community values will be managed in accordance with an OEMP.
(h) not adversely impact on the outstanding universal values of the Great Barrier Reef World Heritage Area	**Complies** The construction impacts will be managed by reducing the Project footprint where possible, as well as through the development and implementation of a CEMP. Potential impacts and management associated with the Project are discussed in Sections 8. Operational impacts are anticipated to be minor; however, environmental, cultural heritage and community values will be managed in accordance with an OEMP.
(i) manage the risks associated with the projected impacts of climate change and natural hazards to protect people and property	**Complies** Land is high enough in elevation to be considered safe from floods, and well above storm surge level, but otherwise at a suitable (low) elevation for a pump station.
(j) manage impacts of air quality on the capacity of the Gladstone airshed.	**Complies** Impacts to air quality as a result of dust and exhaust emissions may occur during construction, these will be managed in accordance with the CEMP.

7.4.3 *Materials Transportation and Services Corridor Precinct*

The GSDA Development Scheme's Materials Transportation and Services Corridor Precinct is the relevant precinct for this SDA application (MCU). The preferred development intent for the Materials Transportation and Services Corridor Precinct (Section 2.4.5 of the GSDA Development Scheme) and its relationship to the Project, is described in Table 7.4.

Table 7.4 Materials Transportation and Services Corridor Precinct – Preferred Development Intent Assessment

Development Intent	Proposal Response
The preferred development intent for the Materials Transportation and Services Corridor Precinct is described below.	
(a) This precinct provides an efficient, effective, and safe route for linear infrastructure to link to development in the Gladstone SDA and the Port of Gladstone.	**Complies** The LRPS and RW pipeline directly complies with the Precinct intent as it supports linear infrastructure and industrial development within Gladstone. The LRPS and RW pipeline are intended to provide security of supply and operational control over the connection to the Gladstone raw water network.
(b) Development in this precinct is to: (i) minimise construction and operation footprints and follow a logical sequence of development to maximise opportunities for future linear infrastructure (ii) avoid adverse impacts on existing infrastructure (iii) provide and maintain access to the corridor for construction, operation,	**Complies** The LRPS has been limited to a construction footprint of 0.25 ha and an operational footprint of 0.1 ha. The raw pipeline will utilise the existing GAWB East End treated water pipeline easement. The LRPS and associated pipeline have been designed in consideration of existing infrastructure and any known future infrastructure. The new access road will be a direct access from Boat Creek Road to Lot 2 SP250625 (Lot 2 abuts the road) and

Development Intent	Proposal Response
and maintenance of existing and future linear infrastructure (iv) co-exist with other linear infrastructure internal and external to the Gladstone SDA (v) recognises and manages adverse impacts to sensitive land uses adjacent to the Gladstone SDA.	has been designed in consideration of surrounding existing and known future linear infrastructure. Access to the new RW pipeline will be consistent with the existing access to the TW pipeline. The LRPS will not impact on existing infrastructure. The design has considered other linear infrastructure. The LRPS and raw water pipeline will not impact on sensitive land uses or existing easements within Lot 2SP250625 or adjacent to the Gladstone SDA.
Defined uses that support the preferred development intent are:	
(a) linear infrastructure facility (b) utility installation	**Complies** The Project is a utility installation and is part of a linear infrastructure project, the EE pipeline, under the GSDA. The Project is intended to provide security of supply and operational control over the connection to the Gladstone raw water network.
Defined uses that may be supported where the use does not compromise the preferred development intent include:	
(a) major electricity infrastructure (b) substation (c) telecommunications facility.	**N/A**
The creation of additional lots may only be supported where being undertaken for operational, management or regulatory purposes, or if there is an overriding need.	
	N/A
Section 2.4.5, Table 5 identifies SDA assessable development and SDA self-assessable development within the precinct.	**Complies** This SDA application has been prepared as the proposed MCU for 'utility installation' is subject to assessable development within the precinct.

7.4.4 *SDA Wide Assessment Criteria*

Table 7.5, provides an assessment of the Project against the SDA wide assessment criteria provided in Section 2.5 of GSDA Development Scheme.

Table 7.5 SDA Wide Assessment Criteria Assessment

Assessment Criteria	Proposal Response
2.5.1 Infrastructure and services	
(a) Development is designed to maximise efficiency and minimise the cost for infrastructure and services	**Complies** The Project will support industrial development with the expanding industrial area in Gladstone through the provision of a reliable supply of water for growth of current consumers and future demands. The Project is intended to provide security of supply and operational control over the connection to the Gladstone raw water network.
(b) Development plans for and manages its impacts on existing and planned infrastructure and services	**Complies** During the design of the Project, the existing infrastructure in the area was considered to avoid conflicts with current and future known service networks, where possible. The alignment of the pipeline within an existing easement and within the existing EE TW pipeline trench will reduce the potential for impacts.

Assessment Criteria	Proposal Response
	The impacts will be managed through design and consultation with infrastructure owners, and during construction through a CEMP and other relevant procedures.
(c) is adequately serviced by the infrastructure and services necessary to meet the demand generated by the development	**Complies** Where services are required, the development will include adequate service infrastructure as to not impact upon the existing service network within the GSDA.
(d) integrates with existing and planned infrastructure and services where possible.	**Complies** Known and potential future infrastructure was assessed during siting and design. The location of the LRPS is required to support the pipeline within an existing easement.
2.5.2 Transport	
(1) Increased traffic arising from the development is either able to be accommodated within existing road networks, or works are undertaken to minimise adverse impacts on existing and future uses and road networks.	**Complies** It is anticipated that temporary increases in traffic during construction and maintenance periods will occur on roads within the GSDA. A Traffic Management Plan will be prepared and implemented by the Construction Contractor. Following construction, the LRPS, will operate automatically with remote monitoring and control of the pump station. It is expected that weekly access to the pump station for monitoring or other routine maintenance activities will be required with additional access during breakdown events as required. This access is infrequent in comparison to other users of the road network and not expected to result in an impact.
(2) Road networks in the Gladstone SDA are designed to accommodate the proposed vehicle type and predicted traffic volumes associated with the development and the precinct/s.	**Complies** The LRPS will utilised the existing access to Boat Creek Road from Landing Road which joins the easement. Gladstone Regional Council is being engaged on access requirements.
(3) Development is designed to facilitate safe and efficient vehicular ingress and egress and does not unduly impact on the safe and efficient operation of transport infrastructure, including corridors.	**Complies** The LRPS will utilised the existing access to Boat Creek Road from Landing Road which joins the easement. Gladstone Regional Council is being engaged on access requirements to ensure the continued safe and efficient operation of transport infrastructure, including corridors.
(4) Adequate onsite parking for the number and nature of vehicles expected is provided.	**Complies** During construction, site preparation will enable suitable room on Site to be established for construction parking. The design has allowed room on site for parking during operation.
2.5.3 Environmental nuisance	
Development is located, designed, and operated to avoid, minimise or manage:	
(a) adverse impacts from air, noise and other emissions that will affect the environment and/or health and safety, wellbeing, and amenity of communities and individuals	**Complies** Potential impacts during construction associated with assessment criteria 2.5.3 include: • Air impacts as a result of dust or vehicle/machinery emissions • Noise impacts associated with construction The Project is located in a rural and partly industrial area with limited community sensitive receptors (such as residences). The closest residence to the RW pipeline is approximately 700 m south of activities, noting that a rail line and highway

Assessment Criteria	Proposal Response
	are closure to the receptor at this location. The closest residence to the LRPS is approximately 2.5 km west. The implementation of a CEMP will assist in mitigating impacts to sensitive receptors. Operational impacts will be restricted to monitoring and maintenance only; the water pipeline and LRPS will not result in any significant emissions. Operations will occur in accordance with an OEMP.
(b) conflicts with sensitive uses arising from (but not limited to) spray drift, odour, noise, light spill, dust, smoke, or ash emissions.	**Complies** The Project is immaterial to surrounded industrial activities. The Project construction and operation will be an insignificant contribution to the local industrial use.
The location, design and operation of development achieves the relevant acoustic objectives of the Environmental Protection (Noise) Policy 2019 and achieves the relevant air quality objectives of the Environmental Protection (Air) Policy 2019.	
	Complies The construction of the LRPS will be undertaken in accordance with a CEMP that includes compliance with the Environmental Protection (Noise) Policy and Environmental Protection (Air) Policy.
3. Development	
(a) avoids adverse impacts on the cumulative air quality of the Gladstone airshed or	**Complies** High levels of air emissions are not anticipated for the LRPS.
(b) where impacts cannot be avoided, conducts air shed modelling in accordance with current best practice to demonstrate compliance with air quality standards.	N/A
2.5.4 Contaminated land	
(1) Development on land likely to be contaminated or recorded on the Environmental Management Register or Contaminated Land Register does not adversely impact on human health or the environment by exposure, management, or movement of contaminants.	**Complies** The Project is not proposed on land likely to be contaminated. The CEMP will consider management of incidental contaminated land finds and hazardous materials / chemical spills.
(2) Where required, develop a strategy to manage any existing contamination and the potential for additional contamination, so that human health and the environment are not adversely affected.	**Complies** The Construction Contractor will manage contaminated land in accordance with a CEMP.
2.5.5 Natural hazards	
Development, in accordance with current best practice	
(a) identifies relevant natural hazards that may impact upon the project (b) appropriately manages risk associated with identified hazards (c) avoids increasing the severity of natural hazards (d) avoids adverse impacts from natural hazards to protect people and property and enhances the community's resilience to natural hazards, or where adverse impacts cannot be avoided,	**Complies** As identified in Section 4.6 hazards applicable for the Site include medium intensity bushfire risk. Development of the LRPS and RW pipeline installation will be in accordance with Appendix 11.8 Bushfire Management and Mitigation Management Plan. During normal operation the LRPS does not present a bushfire ignition risk, and any maintenance works will occur in accordance with relevant safety procedures that include consideration of natural hazards. No coastal hazards are mapped as affecting the Site.

Assessment Criteria	Proposal Response
impacts are minimised, mitigated, or offset (e) avoids directly or indirectly increasing the severity of coastal erosion either on or off the site.	
Development, in accordance with current best practice, achieves an appropriate level of flood immunity and	
(a) does not adversely affect existing flow rates, flood heights, or cause or contribute to other flooding impacts on upstream, downstream, and adjacent properties, or the state transport network (including potential impacts from changes to stormwater flows and local flooding).	**Complies** The LRPS is not located in a mapped flood hazard area. There will be no impact to upstream / downstream properties or infrastructure.
2.5.6 Climate change	
Development:	
(a) avoids or, if avoidance cannot be achieved, minimises net increases in the emission of greenhouse gases (b) can adapt to current and future impacts of a changing climate.	**Complies** The installation of the Project is directly associated with enabling climate change targeted projects. The Project will have negligible net increase in greenhouse gases.
2.5.7 Acid sulfate soils	
Development, in accordance with current best practice, is to:	
(a) avoid the disturbance of acid sulfate soils (ASS) or (b) ensure that the disturbance of ASS avoids or minimises the mobilisation and release of contaminants.	**Applicable** The GRC Planning Scheme identified the potential presence of ASS between 5 – 20 m, in the first 4.7 km of the project area. State level mapping from Queensland Globe indicates approximately 2 km of the eastern section is potentially affected by ASS. An ASS Management Plan is attached as Appendix 11.9.
2.5.8 Water quality	
Consistent with the Environmental Protection (Water and Wetland Biodiversity) Policy 2019, development avoids or, if avoidance cannot be achieved, minimises, mitigates or offsets adverse impacts on the environmental values and water quality objectives of receiving waters and wetlands arising from:	
(a) altered stormwater quality and/or flow (b) wastewater (other than contaminated stormwater and sewage) (c) the creation or expansion of regulated structures or non-tidal artificial waterways (d) the release and mobilisation of nutrients and sediments.	**Complies** Potential impacts during construction will be managed via the CEMP and a site-specific Erosion and Sediment Control Plan (ESCP) to protect the water quality of local waterways. The LRPS will increase hardened areas in the local area, and this may negatively impact stormwater. Design of the access road and hard stand areas has included appropriate stabilisation to minimise erosion risk during operation. Furthermore, the site will be grassed where it is not hardened to assist in stormwater quality mitigation.
(2) Development encourages a precinct-wide stormwater management approach that achieves an improved water quality outcome.	**Complies** The design of the LRPS will ensure that the stormwater management system integrates with the overall development layout to optimize drainage and minimise impervious surfaces.
(3) Development protects the ecological and hydraulic function of waterway corridors in and adjacent to the Gladstone SDA, with particular regard to the Great Barrier Reef World Heritage Area, fish passage and marine plants.	**Complies** The LRPS site has been selected to minimise the area of disturbance to creeks and waterways. Potential impacts to surface water associated with the LRPS are mostly related to construction impacts and disturbance of the ground

Assessment Criteria	Proposal Response
	surface, which can be readily mitigated through good site practice and procedures. The LRPS will not have an impact on the GBRWHA, fish passage or marine plants.
2.5.9 Risk management - activities	
Development is located, designed, and operated to:	
(a) minimise the health and safety risks to communities and individuals (b) avoid any potential adverse impacts from emissions and hazardous activities, or where adverse impacts cannot be avoided, impacts are minimised or mitigated (c) protect high pressure gas pipelines from encroachment that would compromise the ability of the pipelines to function safely and effective	**Complies** The Project is located in a rural and partly industrial area with limited community sensitive receptors (such as residences). The nearest residence to the LRPS is approximately 2.5 km west and 700 m south of the RW pipeline. The implementation of a CEMP will assist in mitigating impacts to sensitive receptors. No hazardous chemical will be stored on the site for the Project. There are no high-pressure gas pipelines impacted by the Project.
(2) Activities involving the use, storage, and disposal of hazardous materials and prescribed hazardous chemicals, dangerous goods, and flammable or combustible substances are located and managed to minimise the health and safety risks to communities and individuals.	**N/A** Not triggered.
(3) Development provides adequate protection from the harmful effects of noxious and hazardous materials and chemicals manufactured or stored in bulk during natural hazard events.	**N/A** Not triggered.
2.5.10 Cultural heritage and community	
(1) Indigenous and non-Indigenous cultural heritage values, and community values of the premises on which the development is undertaken, and immediate surrounds, are identified and managed, consistent with current best practice.	**Complies** Indigenous and non-Indigenous cultural heritage values will be managed as per Section 8.
(2) Development is located, designed and operated to avoid adverse impacts on cultural heritage and community values, or where adverse impacts cannot be avoided, impacts are minimised, mitigated, or offset.	**Complies** Indigenous and non-Indigenous cultural heritage values will be managed as per Section 8.
(3) Development recognises and protects the cultural heritage values associated with:	
(a) the Euroa Homestead on Lot 200 on SP239672 (b) the Mount Larcombe Station Original Homestead Site on Lot 73 on SP272417 and Lot 20 on SP272417 (c) the Targinnie Cemetery on Lot 95 on DS287.	**Complies** The Project is not located in proximity to the three CH values.
(4) Where development requires a buffer to mitigate the adverse amenity impacts of the development, including, but not limited to, visual and acoustic impacts, that buffer is accommodated within the development site.	**N/A**
2.5.11 Environment	

Assessment Criteria	Proposal Response
Environmental values of the premises on which the development is undertaken, and immediate surrounds are identified and managed, consistent with current best practice.	
	Complies Ecological surveys have been completed of the site. A CEMP will be implemented identifies and implements best practices.
Development is located, designed, and operated to:	
(a) avoid adverse impacts on environmental values including matters of local, state, and national environmental significance or where adverse impacts cannot be avoided, impacts are minimised, mitigated, or offset (b) maintain ecological connectivity and processes (c) maintain the outstanding universal value (OUV) of the Great Barrier Reef World Heritage Area including the local attributes of the OUV identified in the Master plan for the Priority Port of Gladstone and Port overlay (d) retain, to the greatest extent possible, tidal fish habitat and marine plants.	**Complies** Ecological surveys have been completed. Activities are being minimised and a CEMP will be developed for construction activities. No tidal fish habitat or marine plants are impacted by the Project.
(3) Any residual significant adverse impacts are offset in accordance with the relevant Commonwealth or Queensland environmental offset framework.	No Commonwealth environmental offsets are required. No residual significant adverse impacts are caused by the project.
(4) Lighting associated with the construction and operation of development is designed to limit the impacts on aquatic wildlife, including turtles and migratory species.	**Complies** The Project construction and operational lightening will not impact of aquatic wildlife.
(5) Where development requires a buffer to mitigate the impacts of the development, that buffer must be accommodated within the development site.	**Complies** A buffer will be included within the development site.
Development avoids native vegetation clearing, or where avoidance is not reasonably possible, minimises clearing to:	
(a) conserve vegetation (b) avoid land degradation (c) avoid fragmentation and conserve connectivity.	**Complies** Clearing has been limited to up to 0.5 ha with an operational footprint of approximately 0.1 ha
2.5.12 Engineering standards	
(1) Development is to be designed and constructed in accordance with the relevant engineering and design standards (and any subsequent revisions to the relevant standards) stated in Table 7 below. Alternative and innovative solutions that demonstrate compliance with the relevant standards are encouraged.	**Complies** The design and construction of the LRPS will be in accordance with water industry standards and codes of practice with a view to achieving generally a design lifespan of a minimum of 75 years, taking into account the conditions of the Site and the nature of the materials and processes involved.
2.5.13 Other government matters	
(1) Development is to demonstrate consistency with any other relevant legislative requirements that may be necessary for the	**Complies**

Assessment Criteria	Proposal Response
development to proceed and to the extent practicable, be consistent with regional plans, the State Planning Policy, the Port Overlay for the priority Port of Gladstone, and the State Development Assessment Provisions, where the State interests articulated by these instruments are likely to be affected by the development.	As identified within Section 7, other legislative requirements have been considered by GAWB.
(2) Development recognises and protects the long-term availability of the extractive resource and access related to the Targinnie Key Resource Area (Number 119).	**Complies** The LRPS is located within the Targinnie Key Resource Area (KRA) (Number 119) transport route separation area. The LRPS will not impact on the either the KRA or the transport of resources from the KRA. The rw pipeline traverse KRA 119 however remains in the current GAWB easement.
(3) Development does not compromise existing or future port facilities and operation on Strategic Port Land.	**Complies** The Project does not compromise existing or future port facilities and operation on Strategic Port Land
2.5.14 Energy and water efficiency	
Building, site design, and layout maximises energy efficiency having regard to:	
(a) building orientation and passive solar design (b) maximising opportunities for cross ventilation (c) appropriate shade treatments (d) landscaping treatments to the western side of the building.	**Complies** The LRPS operation will require electrical supply for the operation of the systems panel and pumps. There are no habitable buildings on at the LRPS that require energy consumption.
(2) Water efficiency is optimised with alternative water supply sources, including:	
(a) rainwater harvesting systems (b) recycled water source.	**Not applicable** The Project, as part of the EE pipeline, are to secure a reliable water supply to the region. Significant water use at the Site is not required during operation. For maintenance or cleaning activities appropriate water sources will be used.
(3) Where practicable, development should be consistent with the Queensland government's renewable energy policies.	**Complies** The LRPS is a Queensland Government project.
2.5.15 Visual Impacts	
(1) Visual impacts of buildings, retaining structures, or other development are minimised through building design, landscaping, and use of appropriate materials when viewed from a publicly accessible viewpoint such as major roads and the Mount Larcom landform.	**Complies** The LRPS will not be visible from a publicly accessible viewpoint.
Development maintains and enhances significant vegetation where possible and provides landscaping that:	
(a) minimises the visual impacts of the development (b) incorporates at least 50 per cent local species (c) is low maintenance.	**Complies** The LRPS will be a small compound surrounded by a security fence. Internal vegetation will be preference for low maintenance species which enable water infiltration.
2.5.16 Reconfiguring a lot	

Assessment Criteria	Proposal Response
(1) Development provides lawful, safe and practical access.	**Complies** The LRPS will be accessed from Landing Road via the existing pipeline easements and (mostly unformed) Boat Creek Road road reserve.
(2) Lot sizes are adequate to accommodate a development footprint consistent with the preferred development in each precinct. A range of lot sizes is preferred to accommodate development in each precinct. Minimum lot sizes for development precincts are generally consistent with the following:	
(a) Port Related Industry Precinct – 2 hectares (ha) (b) High Impact Industry Precinct – 10 ha (c) Medium Impact Industry Precinct - 2 ha (d) Industry Investigation Precinct – 2 ha	N/A

7.4.5 *The clearing of native vegetation with the GSDA*

Schedule 3 (3) of the GSDA Development scheme requires '*A proponent who carries out SDA self-assessable development for operational works for the clearing of native vegetation where identified in an SDA application for a material change of use or reconfiguring a lot must comply with the relevant requirements set out in Table 10 and section 3.1*'.

The development of the Project will involve the clearing of QLD government mapped Category C high-value regrowth vegetation containing of concern vegetation to establish the Site within the GSDA. The rw pipeline is within the existing GAWB easement which is cleared of vegetation.

Table 7.6 SDA wide requirements for SDA self-assessable development – operational works for the clearing of native vegetation

Assessment Criteria	Proposal Response
SDA wide requirements	
1. Vegetation Type (1) Clearing is for the following vegetation: (a) regulated regrowth vegetation (b) an of concern regional ecosystem in a category B area (c) a least concern regional ecosystem in a category B area.	**Complies** The LRPS clearing is within a Category B least concern regional ecosystem, 12.11.14.
2. Land use (1) Clearing is associated with reconfiguring a lot that is authorised by an SDA approval or (2) clearing is associated with a material change of use that is authorised by an SDA approval and is for development listed in Schedule 1 Part 2 but (3) does not include development associated with animal husbandry, animal keeping or cropping.	**Complies** The LRPS vegetation clearing is associated with a material change of use SDA approval and is for development listed in Schedule 1 Part 2.
Compliance requirements	
1. Prior to commencing SDA self-assessable development for the clearing of native vegetation, the proponent must provide	This application

Assessment Criteria	Proposal Response
compliance documentation to the Coordinator-General.	
2. Compliance documentation must include: (a) the proponent's name, address, phone numbers, and email (b) a description of the proposed SDA self-assessable development, its location and lot and plan number (c) a description of the associated SDA approval (d) detail on how the development complies with the relevant requirements for the SDA self-assessable development, including supporting information such as survey plans and vegetation maps.	Refer to section 1.3 Refer to section 1.3 Refer to section 2 This application

7.5 Priority Ports – Gladstone

The Site is within the boundaries of the Master Plan for the Priority Port of Gladstone (TMR, 2020). The relevant precinct is the port, industry and commerce precinct. The Master Plan and associated Port Overlay recognises the purpose of the GSDA and refer to the GSDA Development Scheme. The outcomes for the precinct are:

> *Development within this precinct provides for a range of industries which are of regional, state, national and global economic significance, and supply chain infrastructure that supports the operation of the port and industry. For example, uses in this precinct may include manufacturing industries, refineries, warehouses, wholesale trade, transport services, distribution centres and associated residue storage and waste management facilities.*
>
> *The precinct may include associated infrastructure required for daily operations of the port such as security, customs and quarantine requirements, parking facilities, utility installations, and materials transportation infrastructure to support industry.*
>
> *This precinct may also include other development that does not compromise the existing and future expansion of port operations, port related industry and supply chain infrastructure.*

The Project objective is to provide water security to industrial customers in the Gladstone region. Therefore, the Project aligns with the outcomes of the port, industry and commerce precinct and the Master Plan.

8. IMPACTS OF PROPOSAL AND MANAGEMENT

Development of the Project has a very low potential to impact environmental values and existing infrastructure during the design, construction and operation phases. Table 8.1 outlines the potential impacts that may occur to the following matters during the design, construction and operational phases:

- Land tenure and landowners
- Land
- Water resources including surface and groundwater
- Biodiversity including fauna, flora and vegetation communities
- Sensitive receptors
- Existing infrastructure
- Cultural heritage
- Community values.

The impacts to these matters will be required to be managed by GAWB and its relevant Contractors and are detailed in Table 8.1.

Table 8.1 Key potential impacts during project construction and operation phases and proposed mitigation measures

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
Land		Excavation has the potential to result in erosion of exposed surfaces and stockpiles, particularly for dispersive soils. Potentially leading to erosion and sedimentation, and associated water quality and ecosystem health impacts. Potential disturbance of unidentified contaminated land, or creation of contaminated land due to spills. Subsidence of backfilled trench, which could lead to gully erosion and affect local catchment hydrology if soils have not been compacted to a level corresponding with the surrounding soils.	Erosive and dispersive soils are not recognised or treated appropriately during maintenance, leading to erosion and sedimentation, and associated water quality and ecosystem health impacts. Disturbance of potentially contaminated during maintenance of the LRPS.	**Design** – Undertake geotechnical investigation. – Minimise land disturbance as much as practical. **Construction** – Implement a CEMP. – Develop, implement and maintain an ESCP that is certified by a Certified Professional in Erosion and Sediment Control (CPESC). – Minimise the stockpiling of spoil as much as possible, particularly during the wet season. This will require regular removal of excavated material from Site. – Compact backfilled soils to a level commensurate with the surrounding soils and slope risk. – Implement progressive revegetation and rehabilitation or install temporary protection measures to reduce erosion. – Only import fill materials (for structural or landscaping purposes) that are certified as contaminant free. – Maintain, monitor and remediate, as required, stabilisation works including landscaping and rehabilitation works. **Operation** – Minimise soil disturbance when undertaking maintenance earthworks. – Prepare and implement an OEMP.
Hydrology	The Project proposes minimal landform changes that have potential to result in localised stormwater alterations.	Contamination through the release of polluting substances (e.g. spills of fuels or oil, or litter), disturbance of contaminated material, or inappropriate waste disposal.	Changes due to surface and stormwater discharge from the LRPS during maintenance works (e.g. release of sediment laden water).	**Design** – Design appropriate stormwater mitigation. **Construction** – Install stormwater protection and management structures, particularly in erosion prone areas. – Retain vegetation in erosion prone areas as much as possible or implement stabilisation of

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
		Changes due to surface and stormwater discharge from the Project during construction works (e.g. release of sediment laden water) and reduced bank stability (erosion) of receiving drainage pathways. Changes to the hydrological regime and reliant vegetation associated with the extraction of water from existing sources for construction purposes. Sediments entering drainage lines, waterways or wetlands and causing a reduction in downstream water quality.	During maintenance activities sediments entering drainage lines, waterways or wetlands and causing a reduction in downstream water quality.	exposed/disturbed soils (e.g. temporary geofabric/revegetation). – Implement a CEMP, that includes: • Measures for managing fuel and chemical handling, storage, distribution and spill response during construction. • Drainage, erosion and sediment control measures. – Schedule works for the dry season, where possible. – Dispose wastewater offsite at a licenced facility. – Implement water sensitive urban design principles. – Restore local drainage profiles following construction. **Operation** – Install control systems to shut down the pipeline in event of a rupture and screening of pipe intake. – Implement an OEMP and maintenance procedures to manage leakages from the pipeline, pipeline degradation, possible groundwater contamination resulting from pesticide use, and monitoring of groundwater to detect possible contamination.
Vegetation / Flora	Loss of native vegetation caused by clearing based on design.	Loss of native vegetation caused by clearing beyond that which is required for construction. Introduction and spread of weeds to the project by construction vehicles and machinery.	Introduction and spread of weeds to the project by operational vehicles and machinery during routine inspections and maintenance works.	**Design** – Undertake a protected plant survey in accordance with the DES Flora Survey Guidelines – Protected Plants (2020). Obtain relevant permits. – Undertake a survey to identify any weed species onsite that require management. **Construction** – Implement a CEMP. – Identify and delineate the approve area of disturbance to minimise the risk of impact upon flora. – Minimise vegetation clearing, where practical. – Locate works areas in previously cleared areas wherever possible.

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
				– Implement staged clearing protocols and completing revegetation / rehabilitation works as soon as areas are no longer required. – Revegetate disturbed areas with local native flora species. – Minimise as much as possible, clearing areas to allow construction of infrastructure and fulfil environmental management requirements. – Implement biosecurity management measures such as vehicle wash-downs and inspections, hygiene certification for materials to be used during construction, and active weed control at the Site. – Clearly communicate mitigation measures to contractors to ensure awareness, including installing temporary signage to inform personnel of protected species that may be present. **Operation** – Implement an OEMP. – Implement biosecurity management measures. – Monitor the effectiveness of controls and establishing triggers for corrective action where potential impacts are observed.
Fauna	Loss or disturbance to threatened fauna habitat or breeding places caused by clearing based on design.	Loss and fragmentation of habitat used by a range of fauna. Fauna injury or death during the construction of the project. Noise and vibration will be generated by the project during construction works. Increases in noise and vibration may result in habitat becoming unsuitable for fauna.	Fauna injury or death during the operation of the project.	**Design** – Undertake a fauna survey to confirm habitat values and animal breeding places. Obtain relevant permits. – Utilise findings from survey to inform design if appropriate (e.g. fauna fencing). **Construction** – Implement a CEMP. – Minimise vegetation clearing, where practical. – Install fauna exclusion fencing around construction area. – Installing temporary fencing around non-works areas with retained ecological values to prevent entry during construction.

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
				– Engaging a fauna spotter-catcher to be present during vegetation and habitat clearing. – Implement an ESCP. – Implement biosecurity management measures such as vehicle wash-downs and inspections, hygiene certification for materials to be used during construction, and active weed control within the project area. – Clearly communicate mitigation measures to contractors to ensure awareness, including installing temporary signage to inform personnel of protected species that may be present. **Operation** – Implement an OEMP. – Monitor the effectiveness of controls and establishing triggers for corrective action where potential impacts are observed.
Air Quality	Design may influence air quality (e.g. unformed roads resulting in ongoing dust).	Exhaust emissions from site plant, equipment and vehicles. Fugitive dust emissions from construction related activities including excavation, vegetation clearing and movement of vehicles.	Only relatively small effects on local air quality are anticipated from the operational traffic associated with the project. As such, the effect of the operational project on local air quality is negligible and there is no need for operational-phase mitigation measures.	**Design** – Prevent dust emissions where possible, rather than applying dust suppression methods. – Identify appropriate water sources for dust suppression purposes (water used should not lead to soil contamination), or where water resources are scarce, dust stabilisers could be used. – No specific measures related to mitigating greenhouse gases have been provided due to the relatively low contribution of the project to these emissions during construction. **Construction** – Implement a CEMP. – Damp down roads during prolonged dry periods and regular cleaning of hard-surfaced Site entrance roads. – Ensure that dusty materials are transported, stored and handled appropriately. – Confine vehicles to designated routes that are constructed from an appropriate material to

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
				minimise dust, and restricting vehicle speeds on access roads and other unsurfaced areas of the Site.
Noise and vibration	Minimal disturbance due to the location being remote and within proximity to existing highly industrialised areas	Increased levels of construction-related noise and vibration	It is not expected that the LRPS will impact on receptors during operation.	**Design** – If required, design appropriate vibration control elements for adjacent infrastructure. **Construction** – Implement a CEMP that establishes work hours, work practices, community liaison requirements, mitigation measures, roles and responsibilities and construction noise monitoring protocols. – Implement source noise control strategies, e.g. keep horns and reversing alarms to the minimum volume level possible, use non-tonal / broadband type reversing alarms and use stockpiled materials as “noise barriers” to shield sensitive receivers. **Operation** – Implement an OEMP.
Existing infrastructure	Potential for direct impact upon third party infrastructure (refer section 3.4).	Potential for impact to operation of Landing Road due to use of the road during construction, or as a result of constructing a new access road.	It is not expected that the LRPS will impact on future infrastructure.	**Design** – Undertake appropriate infrastructure identification activities. – Negotiate early with impacted third party infrastructure entities. – Obtain approval from third party construction entities to work within their infrastructure corridors (i.e. Gladstone Regional Council road reserve). **Construction** – Identify all infrastructure onsite. – Engagement of third party infrastructure entities during the construction phase to avoid conflicts for existing infrastructure. – Manage potential road impacts in consultation with Gladstone Regional Council. – Implementing required construction methodologies from utility providers during the construction phase. **Operation**

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
				– Registering the proposed infrastructure with development authorities to avoid accidental damage in the future.
European heritage	There are no European heritage values within Site.	There are no European heritage values within the Site.	There are no European heritage values within the Site.	No proposed mitigation measures.
Aboriginal heritage	Aboriginal Cultural Heritage sites may be encountered at Site and be directly impacted.	There are no known Aboriginal Cultural Heritage values within the Project area.	There are no known Aboriginal Cultural Heritage values within the Site.	**Design** – Undertake a Duty of Care assessment. – If any Aboriginal Cultural Heritage sites are identified ensure they are mapped on design drawings and in construction plans. **Construction** – Implement the CHMP and any required site-specific procedures as per the *Aboriginal Cultural Heritage Act 2003* and associated Duty of Care Guidelines. – Attend a Cultural Heritage induction for all persons engaged in ground disturbing activities prior to commencing works. – Consult with relevant stakeholders to reduce disturbance to identified Aboriginal sites. – Establish a procedure for unexpected cultural heritage finds and 'Discovery of Human Remains' in the unlikely event that suspected human remains are uncovered. **Operation** – Attend a Cultural Heritage induction for all persons engaged in ground disturbing activities prior to commencing works. – Implement an OEMP.
Community values	The Project does not impact community values.	The Project does not impact community values	The Project does not impact community values	**Design** – Due to the low sensitivity of visual amenity impact, no specific design measures are proposed. **Construction** – Implement a CEMP.

Values	Potential Impacts - Design	Potential Impacts - Construction	Potential Impacts - Operation	Proposed Mitigation Measures
				– Landscape and rehabilitate disturbed areas as soon as possible. – Use locally endemic vegetation species in rehabilitation that are known to be well adapted to the area and soils. – Minimise vegetation clearing, where practical. – Restrict lighting of compounds and worksites to low impact lighting and minimise lighting spill. – Locate storage facilities away from residential areas. – Store materials and machinery neatly during the works, and where possible behind solid hoardings. – Maintain access roads to works areas as free of dust and mud as far as reasonably practicable. – Maintain a high level of housekeeping at all times. – Remove all construction materials to a suitable location upon completion of construction. **Operation** – Implement an OEMP.

9. CONCLUSION

This assessment has been undertaken in accordance with the provisions of the GSDA Development Scheme, and the proposed SDA application requirements for a MCU for 'utility installation' over the Project in accordance with the SDPWO Act.

A full assessment of the Project has been made against the strategic vision and overall objectives of the GSDA Development Scheme, the preferred development intent of the Materials Transportation and Services Corridor Precinct and the SDA-wide assessment criteria. The conclusion of this assessment is that the proposed development achieves compliance with the relevant strategic vision, objectives and intents of the GSDA Development Scheme.

The Project is considered to be appropriate for the area based on the following justification:

- The Project directly supports the industrial land uses within the GSDA through the provision of a secure water supply
- The Project accords with the relevant objectives of the GSDA Development Scheme and the preferred development intent of the relevant precincts.
- The location of the Project is appropriate and has been sited to ensure minimal disruption to existing (and future proposed) services and the amenity of the area.
- The location of the Project has been situated to ensure minimal impacts upon the environment and local biodiversity.

Having regard to the justification provided in Section 2.4 of this Planning Report, public consultation is not considered required in this instance.

It is recommended that the Coordinator-General supports this SDA application (MCU) to meet the growing need to provide a reliable supply of water for the current industrial consumers and future demand in Gladstone.

10. REFERENCES

State of Queensland 2024, *Queensland Globe mapping database*, State of Queensland. Available from: https://qldglobe.information.qld.gov.au/. Accessed October 2024

11. APPENDICES