Wyaralong Water Treatment Plant and Associated Infrastructure

Application Number: **03023** Commencement Date: **30/07/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Wyaralong Water Treatment Plant and Associated Infrastructure

1.1.2 Project industry type *

Water Management and Use

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

01/07/2027

1.1.4 Estimated end date *

01/10/2080

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

The proposed action is the construction and operation of a water treatment plant (WTP) and associated infrastructure in South-East Queensland (referred to as the Project), to be undertaken by Queensland Bulk Water Authority (Seqwater). Seqwater is a statutory authority of the Queensland government responsible for delivering safe, secure and cost-effective bulk water supply.

The purpose of the Proposed Action is to deliver additional water infrastructure to ensure the South-East Queensland Water Grid continues to meet the projected regional annual urban demand of the growing region, consistent with level of service objectives as set by the Queensland Water Regulation 2016. The WTP will supply Beaudesert and the growing communities of southern Logan and the broader South-East Queensland Water Grid.

The Proposed Action comprises the following three key components:

1. **Water Treatment Plant**, which includes a raw water intake in the Logan River and a discharge pipeline from the WTP to the Logan River. The WTP will have a capacity to treat 120 mega litres per day (ML/day).
2. **Wyaralong Interconnector Pipeline** (WIP) – an approximate 14km pipeline to carry treated water from the WTP north to the Southern Regional Water Pipeline (SRWP), part of the South East Queensland Water Grid.
3. **Injector Pump Station** (IPS) - to add the requisite energy needed to inject the treated water into the existing South-East Queensland Water Grid. Two sites are currently being considered for the location of the IPS. Assessment of both options has been included in this report, and within the Project Area, with the preferred location to be decided once project planning and acquisition processes have been completed for the Project.

The IPS is proposed to be located either on:

- Option 1 - Lot 1 RP43898, west of Teviot Road (with minor encroachment into Lot 30 on SP246743 and Lot 31 on SP208810); or
- Option 2 - Lot 23 RP133226, on the corner of Tyson and Teviot Roads.

The Project Area also includes land for a temporary laydown area (Lot 200 on RP200030). Refer to Appendix 1 (Figure 1). In this referral, the following have been defined:

- **Project Area** - boundary of the Proposed Action, including a temporary laydown area
- **Disturbance Footprint** - area of disturbance to MNES for the Proposed Action

The Project Area is 119.8 ha. The total Disturbance Footprint is 85.0 ha. Both IPS options have been included in the total project area and disturbance footprint.

<u>Water Treatment Plant</u>

The WTP will be situated on Lot 141 S312748, freehold land owned by Seqwater (Lot 141, Bushland Road, Riverbend). It will treat water from the Logan River (Cedar Grove Weir pool), which includes water released down Teviot Brook from Wyaralong Dam, situated approximately 13 km upstream. Water may also be stored in the existing Bromelton Off-stream Storage, located five km north of Beaudesert, adjacent to the Logan River, with water captured during high flow events and released during periods of low flows in the Logan River. The WTP will produce potable water using water treatment processes. The operating capacity of the WTP will be 120 ML/day.

The water is proposed to be drawn from the Logan River into the WTP via a pump station, with the raw water intake to be situated in the Logan River adjacent to the site. The raw water intake will comprise of a submerged intake valve structure which will draw water in from the Logan River for treatment into the WTP.

An outlet from the proposed WTP to facilitate controlled release of residual flows into the Logan River downstream of the existing Cedar Grove Weir will be constructed at 412 Bushland Road, Riverbend 4280 (Lot 3 on SP201569). The discharge pipe will be installed below ground within an existing cleared area,

running parallel to Seqwater's existing bulk water supply pipeline and a previously constructed vehicular access track. The Project is applying for an Environmental Authority which will includes conditions for discharge to the Logan River. Proposed discharge criteria are being prepared for inclusion in the application. These criteria have been informed by a Water Quality Impact Assessment completed for the Project.

The adjacent reserve land at 47 Bushland Road, Riverbend 4280 (Lot 47 on SL4065) is a State land reserve for water supply owned by the Queensland Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development; with the trustee listed as the Queensland Bulk Water Supply Authority (Seqwater). Development for the Project will not occur on this land parcel. There is an existing vehicular access track on this land which will be used for access to the outfall location. There are no works proposed within this land parcel as part of the Project.

Wyaralong Interconnector Pipeline

The proposed WIP traverses from the WTP along Bushland Road, and then to the IPS following Teviot Road before connecting into the existing water grid, via the SRWP. The proposed WIP will be constructed within land gazetted for road reserve, under the authority of Logan City Council. The alignment of the WIP has been confined to one side of Teviot Road as it traverses the road reserve in most locations (refer Appendix 02, Figure 2 - 2.6 – 2.17 Detailed Project Area). In some areas of the WIP where constructability of the pipeline may be complex, such as due to the presence of public utility plant and other factors, the whole width of the road reserve has been included in the Disturbance Footprint to allow for flexibility in the design. As the design progresses, the location of the preferred alignment will be confirmed and the Disturbance Footprint updated.

The current design details for the WIP are:

- Approximately 14 km of pipeline, installed below ground level
- Minimum pipe cover of 1,200 mm
- Peak flow capacity 120 ML/day

Injector Pump Station

The IPS is required to add the requisite energy needed to ensure that the treated water from the WTP travels into the larger South-East Queensland Water Grid.

Construction methodology

Currently the Project is going through an Early Contractor Involvement phase, which will lead to the execution of a contract for the detailed design phase followed by construction. The following construction methods are currently proposed for the Project (as defined during the reference design phase), and will be further progressed during the detailed design:

- Clearing and grubbing
    - Clearing vegetation in accordance with permits, approvals, and a Construction Environmental Management Plan
    - Windrowing and maintenance of topsoil to support erosion and sediment control measures
    - Installation of key environmental mitigation measures, as aligned with best practice
- Pipelaying activities
    - Generally, the WIP will be installed via open trenching, except at the following locations:
- Where the WIP intersects with riparian zones supporting Threatened Ecological Communities, specifically along Flagstone Creek, Abrade Creek, and an unnamed tributary of the Logan River (all stream order 3/4 watercourses), the Project will implement trenchless construction techniques, such as microtunnelling or horizontal directional drilling. The length of trenchless crossings in these areas avoids the defined bed and banks (based on a digital elevation model), and associated buffer distance in alignment with the Queensland Government's State Code 16: Native Vegetation Clearing riparian protection limits for stream order 3-4 (25m).

- Major roads are anticipated to be crossed with a trenchless design
- Construction of a raw water intake and discharge pipe within the Logan River
    - Likely coffer dams and excavation within the Logan River
- Reinstatement works
    - Restoration requirements will vary based on ground conditions and the surrounding environment, ranging from hydro-mulched or seeded finishes.

Further details of the construction methodology will be available as the design of the Project progresses.

Temporary laydown areas

A temporary laydown area is proposed for construction purposes on Seqwater owned Lot 200 on RP200030. This lot has previously been used for laydown activities associated with construction works along the Logan River. The proposal may involve a temporary bridge over the Logan River. A temporary bridge at the same location was recently established and dismantled for the South West Pipeline Project. The current proposed use will not involve the clearing of native vegetation or habitat for threatened species or communities, and no permanent infrastructure will be established on the site. Additional laydown areas may be located within the broader Project Area in pre-existing disturbed locations which will not impact native vegetation or habitat for threatened species or communities.

Existing infrastructure

Earlier stages of Seqwater's Beaudesert Water Supply Upgrade (BWSU) have been completed, including development of water supply infrastructure at the proposed WTP site. Stage 2 of Seqwater's BWSU included construction of the Wyaralong Transfer System (WTS) and South-West Pipeline on the proposed WTP site, which connects Beaudesert to the South-East Queensland Water Grid. Approval for this development was granted by Economic Development Queensland via development approval DEV2019/1026/2. It is intended that all infrastructure on the WTP site will ultimately form an integrated operation after construction and commissioning occurs for the development of the proposed WTP.

Lot 141 on S312748 (the WTP site) was partially subject to a referral decision (not a controlled action) for the South West Pipeline and Wyaralong Tanks Project (EPBC 2018/8320). The project area for referral EPBC 2018/8320 and the current Project overlap on Lot 141 on S312748, Lot 3 on SP201569, and Bushland Road. The South West Pipeline and Wyaralong Tanks Project has been constructed. The South West Pipeline and Wyaralong Tanks Project, and WTP Project are separate infrastructure projects for the South-East Queensland Water Grid.

Further details are provided in Section 1.2 of the Referral Report.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The EPBC Act is the Australian Government's central piece of environmental legislation which stipulates any action that has, will have, or is likely to have a significant impact on a MNES, or other matters protected under the EPBC Act, requires approval. An assessment on the significance of potential impacts on MNES from the Proposed Action has been undertaken in accordance with the *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (2013) – refer to Appendix 2 for the report.

Native Title Act 1993

Native title is the recognition in Australian law that First Nations people continue to hold rights to their land and waters, based on their traditional laws and customs. The Native Title Act provides the legal principles for the recognition of Native Title rights and interests.

There are two registered Native Title claim applications covering the Project Area (tribunal number QC2017/007 for the Danggan Balun (Five Rivers) People; and tribunal number QC2017/005 for the Yuggera Ugarapul People), but no registered native title determinations are in effect over the Project Area. The State of Queensland have commenced negotiations with the Danggan Balun People, with a view to reaching a consent determination of Native Title. Due date for consent determination to be confirmed by the parties at a later date.

Seqwater is undertaking a Native Title assessment in accordance with the State guideline for decision-making, to fully understand Native Title implications within the Project Area, including any Future Act notification requirements.

Queensland State legislation

Aboriginal Cultural Heritage Act 2003

The purpose of the *Aboriginal Cultural Heritage Act 2003* is to provide effective recognition, protection and conservation of Aboriginal cultural heritage. Section 23(1) of the *Aboriginal Cultural Heritage Act 2003* states that a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage (the 'cultural heritage duty of care').

Consultation has commenced with the Danggan Balun (Five Rivers) People and the Yuggera Ugarapul People. Field investigations have been completed in some areas of the Project. A Duty of Care Assessment has been completed by Niche and has determined there is a potential for Aboriginal cultural heritage to be present in areas within the Project Area and has recommended further activities to be undertaken prior to and during the proposed works which will be discussed with the Aboriginal Parties. Seqwater is in active negotiations to develop cultural heritage agreements for the Project.

Biosecurity Act 2014

The *Biosecurity Act 2014* provides a framework to help minimise biosecurity risks, facilitate responding to impacts on a biosecurity consideration, ensure the safety and quality of animal feed, fertilisers and other agricultural inputs, and help align responses to biosecurity risks in the State with national and international obligations and requirements for accessing markets for animal and plant produce, including live animals and plants. Development in Queensland must consider its potential to impact on any biosecurity matters or pose a biosecurity risk, and abide by an obligation to take all reasonable and practical measures to prevent or minimise the biosecurity risk.

Economic Development Act 2012

Priority Development Areas (PDAs) are parcels of land within Queensland identified for development to deliver significant benefits to the community, and are operated under their own development scheme, regulated by Economic Development Queensland instead of the local government.

Part of the Project infrastructure lies within the Greater Flagstone PDA, including the WTP, the portion of the WIP that lies within Bushland Road road reserve, and a small length of the WIP at the northern most end, within the Teviot Road road reserve,

The Proposed Action is exempt from requiring a development approval under Schedule 1 of the Greater Flagstone Urban Development Area Development Scheme, due to the Proposed Action being carried out by or on behalf of a public sector entity authorised under a State law to carry out the work. The Proposed Action is prescribed in the *State Development and Public Works Organisation Regulation 2020*, and is exempt from requiring a number of approvals outlined in Section 1.2.6 of the Referral Report.

Environmental Offsets Act 1994

An environmental offset condition may be imposed under various state assessment frameworks for prescribed activities under the *Environmental Offsets Act 1994*, if the activity will, or is likely to have, a significant residual impact on a prescribed environmental matter that is a matter of state environmental significance (MSES).

Environmental Protection Act 1994

The *Environmental Protection Act 1994* provides a licencing and approvals framework for prescribed environmentally relevant activities, which are activities that will, or have the potential to, release contaminates into the environment and may cause environmental harm. Regardless of whether an environmental authority is required for the Proposed Action this Act legislates “general environmental duty.”

An application for an environmental authority application for chemical storage activities and water treatment activities at the WTP is currently being prepared. Pre-lodgement meetings have been held with the Department of Environment, Tourism, Science and Innovation in relation to this application. This application will include a development application for a concurrence environmentally relevant activity for a material change of use under the Planning Regulation, Schedule 10, Part 5, Division 2, Section 8.

Fisheries Act 1994

The *Fisheries Act 1994* provides for the use, conservation and enhancement of the community’s fisheries resources and fish habitats in Queensland. It is anticipated that an operational works approval for waterway barrier works will be required for the coffer dam for the construction of the raw water intake infrastructure in the Logan River.

Nature Conservation Act 1992

The *Nature Conservation Act 1992* is the principal piece of legislation governing nature conservation in Queensland. It is anticipated that a clearing permit OR exempt clearing notification will be required for the areas of the Project Footprint which require vegetation clearing and are situated within State-mapped ‘flora survey trigger area’ for ‘high risk’ of protected flora species occurrence. It is anticipated that a high risk of impact species management program will be required.

Planning Act 2016

The *Planning Act 2016* is Queensland’s principal planning legislation and includes provisions for making, amending and extending or repealing development applications. Its regulation stipulates where development can be made assessable. An outline of potential approvals and exemptions for the Project is provided in the Referral Report.

State Development and Public Works Organisation Act 1971

Under the *State Development and Public Works Organisation Act 1971,* the Coordinator-General has wide-ranging powers to plan, deliver and coordinate large-scale projects, while ensuring environmental impacts are properly managed. These projects, in turn, promote economic and social development in Queensland.

Under the *State Development and Public Works Organisation Regulation 2020* (SDPWO Regulation), the Project is listed as per Part 4, Division 3, Section 18, the Queensland Bulk Water Supply Authority (i.e., Seqwater) is directed to undertake *particular Wyaralong water treatment plant project works*. This is a direction for Section 100 of the SDPWO Act. The full Project (comprising all aspects of the WTP, WIP and IPS) are listed as a planned development project under the SDPWO Regulation.

The Proposed Action is exempt from various planning approvals (as previously discussed) due to being listed as a project prescribed under the SDPWO Regulation.

Vegetation Management Act 1999

The *Vegetation Management Act 1999* regulates and manages the process and impacts of native vegetation clearing. Development approval for operational work that is the clearing of native vegetation is required for regulated vegetation for the WIP and IPS unless the vegetation clearing is carried out in accordance with an accepted development clearing code.

Waste Reduction and Recycling Act 2011

The *Waste Reduction and Recycling Act 2011* aims to promote waste avoidance and waste reduction, as well as promote resource recovery and efficiency actions. Accordingly, a waste material can be approved as a resource material through the end of waste framework if the waste meets specified quality criteria for a specific use – and is therefore no longer considered a waste.

Water Act 2000

The *Water Act 2000* provides a framework to deliver sustainable water planning, allocation management and supply processes to provide for the improved security of water resources in Queensland.

The Proposed Action will be carried out under an existing water licence, being the Resource Operations Licence: Logan River Water Supply Scheme, which provides the authority to interfere with the flow of water in the Logan River and use the river for the distribution of supplemented water.

It is anticipated a riverine protection permit OR riverine protection exemption will be required for the works in the Logan River at the WTP site to construct the raw water intake infrastructure. It is not yet determined whether this will be required for the pipeline construction (pending more detailed construction methodology).

Planning frameworks

Where the Project Footprint coincides with the Greater Flagstone PDA, the relevant planning framework is Greater Flagstone Urban Development Area Development Scheme. Otherwise, the relevant planning framework is Logan Planning Scheme 2015.

Further details are provided in Section 1.2 of the Referral Report.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

Stakeholder engagement

Prior to the Project Team's involvement from 2023 onwards, Seqwater had been engaging with Logan City Council for some time. Seqwater's Asset Planning team conducted a Multi-Criteria Assessment with Logan City Council and Economic Development Queensland to select a preferred alignment for the WIP in the reference design, ahead of the Business Case. Seqwater has also maintained a Project webpage on the Seqwater website with a high-level overview of the Project and the service need.

Engagement from December 2023 onwards is summarised in Appendix 3.

A high-level summary of engagement completed to date and to be undertaken is shown in Appendix 4, covering the life of the Project from Preliminary Business Case to Operations and Maintenance. All dates are based on the current Project schedule (as at July 2025) and are subject to change.

First Nations engagement

The two First Nations groups with connections to the project area - the Danggan Balun (Five Rivers) People and the Yuggera and Ugarapul People – were engaged early to determine the scope of their involvement, and to ensure their cultural heritage is acknowledged and respected throughout the project lifecycle. The vast majority of the Project Area is within the Danggan Balun (Five Rivers) People's Party area, with only small areas within the Yuggera and Ugarapul People's Party area (refer Appendix 7).

It is not compulsory for the Project to implement a Cultural Heritage Management Plan (CHMP) under the *Aboriginal Cultural Heritage Act 2003* (Qld). However, the Project is opting to negotiate agreements such as Cultural Heritage Management Agreements (CHMA) to provide structure to the consultation with First Nations groups and ensure compliance with the Duty of Care. This plan will outline the process for identifying, protecting, and managing cultural heritage sites and practices that may be impacted by the Project. The CHMA will also ensure that appropriate cultural heritage surveys, monitoring, and mitigation measures are in place, with mechanisms for ongoing dialogue and feedback.

As part of the CHMA, First Nations engagement may include, but is not limited to:

- Integration into Welcome to Country ceremonies: Traditional Owners will be invited to provide a Welcome to Country at Project milestones and community events, ensuring the cultural significance of the land is acknowledged.
- Cultural Heritage inductions: Traditional Owners will be invited to provide onsite personnel with cultural awareness training. This will both foster appreciation and understanding of First Nations culture and cultural heritage, and provide personnel with the ability to identify unexpected finds during construction.
- Regular consultation: Dedicated meetings will be held at key stages of the Project, with opportunities for Traditional Owners to review cultural heritage assessments, propose mitigation strategies, and provide feedback on potential impacts.
- Cultural Heritage workshops: Collaborative workshops will be organised to co-develop management strategies for protecting heritage sites and to ensure that cultural protocols are integrated into planning.
- Opportunities for onsite surveys: Traditional Owners will be offered opportunities to visit the proposed Project site to assist in the formulation of cultural heritage management strategies.

Seqwater and its project team initiated a formal engagement process with the Danggan Balun Applicants and their legal representatives from Queensland South Native Title Services (QSNTS). Meetings and field investigations have been undertaken as part of this process, with the most recent meeting being held on 28 July 2025. The Yuggera and Ugarapul people have also been approached, and did not have cultural heritage requirements for the small section of the Project Area within their Party area. They will continue to be informed about the project's progress, particularly any changes which will impact their Party area.

Local Government engagement

Ongoing engagement with Logan City Council (LCC) is critical to maintaining alignment at both executive and operational levels, ensuring Council remains informed and involved as the Project progresses. It is assumed ongoing engagement with LCC and Scenic Rim Regional Council (SRRC), in the broader context of the Project, will continue in its current form.

More frequent and targeted engagement with LCC Roads Department is required to provide a sufficient level of information to the ECI contractor to deliver the WIP. Engagement Action Plans will be required prior to each engagement activity to ensure messaging is approved by Seqwater and agreed upon by LCC.

Stakeholder assessment

Communication and engagement efforts will be adapted to each stakeholder group, providing a tailored approach to achieve best outcomes for the Project and the community.

Levels of engagement

A layered, strategic approach to engagement will ensure all stakeholders are considered:

- SEQ region-wide – A broad communication-based approach to inform the general public across the region, ensuring widespread awareness and transparency. Messaging would likely focus on addressing the following questions: Why was the Logan River selected? Is the water from Logan River safe to drink? How will the plant connect to the existing water grid and service South East Queensland?
- Logan and Beaudesert area – Engagement tailored for the areas impacted by the Project, ensuring relevance to local concerns and providing focused information. Messaging is likely to cover project benefits and indirect project impacts.
- Local communities (New Beith, Greenbank, Flagstone etc) – Targeted activities with communities that are directly impacted by the Project to address community-specific concerns and encourage local involvement. Likely involved in project design and legacy impacts.
- Targeted – Specialised engagement with key groups or individuals who have unique interests, influence or concerns. Engagement will likely cover direct project impacts due to field investigations and construction activities.
- Ongoing – Long-term business-as-usual (BAU) communication-based campaign to reinforce key messages and provide updates as required. These updates will be delivered through Seqwater public-facing channels such as the Project webpage, quarterly EDM’s and community events.

Community Consultative Committee

A Community Consultative Forum (CCF) will be established to engage with and represent the local community, ensuring that the Project aligns with community values, environmental standards, and regulatory requirements.

The CCF is not required until after broader community engagement commences, however, early establishment of a Council Consultation Committee (CCC) with representatives from LCC, Logan Roads, Logan Water, Seqwater, the Project and the Technical Advisor would support the formation of an external-facing committee from mid-2026.

The objective of a CCC is to engage with and represent the local community, ensuring that the Project aligns with community values, environmental standards, and regulatory requirements.

The CCC will provide a forum for transparent communication, facilitate the exchange of information, address concerns related to water quality, environmental impact, and infrastructure, and support sustainable practices that reflect the needs and priorities of the community. The CCC will also work to foster trust, mitigate potential impacts, and promote a shared sense of ownership and responsibility for the project’s outcomes. This format was selected over a town hall to ensure community input is considered.

Community engagement

A range of communication and engagement initiatives will be undertaken to effectively engage and involve stakeholders impacted by the Project and considers their changing needs throughout the Project lifecycle. They include information sessions, regional shows and community workshops.

Communication and engagement tools

A range of communication and engagement tools will be used throughout the delivery of the Project as identified in Section 1.2.7 of the Referral Report.

1.3.1 Identity: Referring party

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Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

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Alternatively, email us at privacy@awe.gov.au.

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	89637090281
Organisation name	SEQUANA PARTNERS PTY LTD
Organisation address	Level 31, 570 Bourke Street, Melbourne VIC 3000

Referring party details

Name	Madeleine Page
Job title	Regional Environment and Planning Lead North and West
Phone	03 8688 7140
Email	eecapprovals@sequana.co
Address	Level 2 93 Edward Street, Brisbane QLD 4000

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN	75450239876
Organisation name	Queensland Bulk Water Supply authority
Organisation address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

Person proposing to take the action details

Name	Melanie Gordon
Job title	General Manager Capital Delivery
Phone	(07) 3035 5500
Email	MPGProperty.PlanningandApprovals@seqwater.com.au
Address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Seqwater is a statutory authority (the Queensland Bulk Water Supply Authority) established under *the South East Queensland Water (Restructuring) Act 2007*.

Seqwater is the Queensland Bulk Water Supply Authority responsible for delivering safe, secure and cost-effective bulk water supply for more than three million people across South East Queensland. Seqwater also:

- provides essential flood mitigation services
- manages catchment health and offer community recreation facilities
- provides water for irrigation to about 1,200 farmers across seven water supply schemes.

Seqwater is one of the largest water utilities with the most geographically spread and diverse asset base of any capital city water authority. Our operations extend from the New South Wales border to the base of the Toowoomba ranges.

Seqwater is committed to ensuring environmental compliance and preventing environmental harm from its operations. This commitment is being met through the implementation of dedicated environmental resources and the decision to adopt Australian Standards 14001: 2015 Environmental Management Systems (EMS) as the framework for guiding workplace environmental managing practises and performance. The components of the EMS including risk assessments, environmental management manuals and procedures are the key tools that aid in highlighting and mitigating risks across Seqwater's operations.

The EMS addresses various aspects of environmental management and provides practical tools for the organisation to identify and control environmental impacts and improve environmental performance. The EMS is currently certified across several assets within the Seqwater operational portfolio (twelve WTPs, head office locations and the bulk water distribution system).

The systemised management tools are also being implemented across other assets outside the certification scope and are currently implemented across an additional 24 WTP's and five water quality management facilities. Through the progressive evaluation of environmental risks associated with Seqwater's asset base and operations, the significant risks have been highlighted and documented in alignment with Seqwater's risk management framework.

No proceedings against Seqwater related to environmental management have occurred at State or Commonwealth levels.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation’s environmental policy and planning framework

Seqwater's Corporate Environment and Sustainability Policy Statement states the organisation’s commitment to environment and cultural heritage responsibility and sustainability practices (refer to Appendix 5). The policy applies to all employees and contractors and to any person or organisation that acts for or represents Seqwater.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

No

1.3.3.2 Is Proposed designated proponent an organisation or business? *

Yes

Proposed designated proponent organisation details

ABN/ACN	75450239876
Organisation name	Queensland Bulk Water Supply authority
Organisation address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

Proposed designated proponent details

Name	David Brown
Job title	Team Lead Planning and Approvals
Phone	07 3035 5500
Email	mpgproperty.planningandapprovals@seqwater.com.au
Address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	89637090281
Organisation name	SEQUANA PARTNERS PTY LTD
Organisation address	Level 31, 570 Bourke Street, Melbourne VIC 3000
Representative's name	Madeleine Page
Representative's job title	Regional Environment and Planning Lead North and West
Phone	03 8688 7140
Email	eecapprovals@sequana.co
Address	Level 2 93 Edward Street, Brisbane QLD 4000

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	75450239876
Organisation name	Queensland Bulk Water Supply authority
Organisation address	Level 8, 117 Brisbane Street, Ipswich QLD 4305
Representative's name	Melanie Gordon
Representative's job title	General Manager Capital Delivery
Phone	(07) 3035 5500
Email	MPGProperty.PlanningandApprovals@seqwater.com.au
Address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

ABN/ACN	75450239876

Organisation name	Queensland Bulk Water Supply authority
Organisation address	Level 8, 117 Brisbane Street, Ipswich QLD 4305
Representative's name	David Brown
Representative's job title	Team Lead Planning and Approvals
Phone	07 3035 5500
Email	mpgproperty.planningandapprovals@seqwater.com.au
Address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

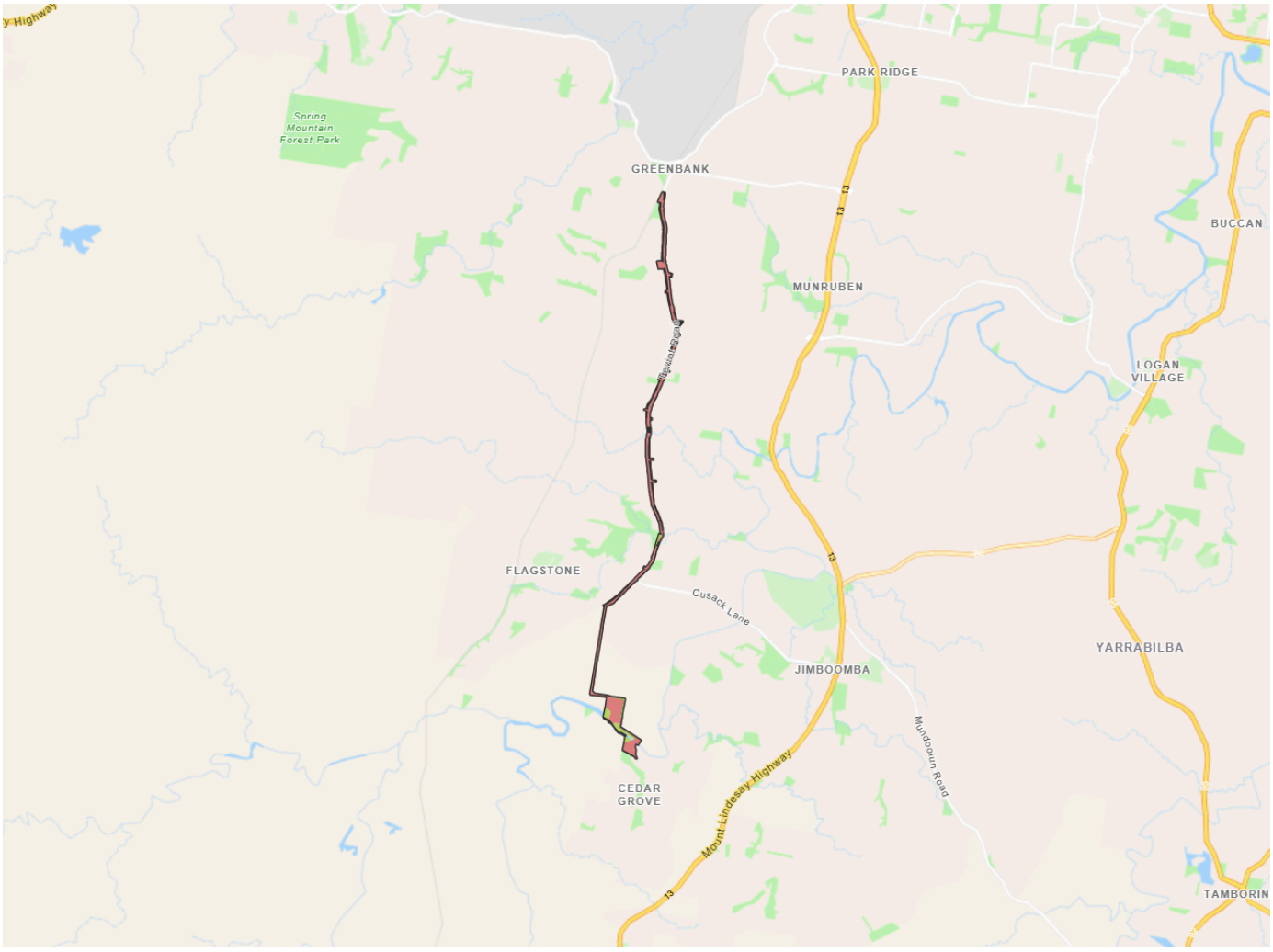
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Proposed designated proponent

2. Location

2.1 Project footprint



Project Area: 120.12 Ha **Disturbance Footprint:** 85.18 Ha **Retention Area:** 10.89 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

WTP: 141 Bushland Road, Riverbend 4280 (Lot 141 on S312748); 412 Bushland Road, Riverbe

2.2.2 Where is the primary jurisdiction of the proposed action? *

Queensland

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

- WTP - Lot 141 S312748, Freehold
- WTP - Lot 3 SP201569, Freehold
- WTP - Lot 47 SL4065, Reserve for water supply
- WTP - Bushland Road, Road reserve
- WTP - Logan River, USL
- WIP - Various road reserves including Teviot Road, Bushland Road, Road reserve
- WIP - Waterways and watercourses, USL
- IPS (Option 1) - Lot 1 RP43898, Freehold
- IPS (Option 1) - Lot 30 SP246743 (part of), Reserve
- IPS (Option 1) - Lot 31 SP208810 (part of), Freehold
- IPS (Option 2) - Lot 23 RP133226, Freehold
- Temporary Laydown Area - Lot 200 RP200030, Freehold

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area’s environment.

Current condition of each component of the whole environment

The Project Area is generally in a developed area in particular along the WIP and at both IPS sites. The WTP site itself comprises a mix of developed and undeveloped land.

The WIP is primarily a disturbed road corridor environment, while the IPS sites are largely cleared, predominantly surrounded by rural residential development. The WTP site is approximately 20% disturbed (cleared) and 80% vegetated, along a more natural riparian environment with less surrounding development. The WTP site also includes the existing Wyaralong Tanks and South West Pipeline project.

Desktop and ecological field surveys were completed in accordance with the Significant Impact Guidelines 1.1 - Matters of National Environmental Significance to gather an understanding of the ecological characteristics of the Project Area. Field investigations were undertaken in March 2023, April 2024 and June 2025 (refer to Section 2 of the Ecological Assessment Report in Appendix 6 for an outline of the methodology). The general description of the Project Area is as follows:

Native species

- A total of 59 native flora species were identified within the Project Area during the ecological field surveys.
- A total of 13 native fauna species were identified within the Project Area.

Non-native species

- A total of ten invasive flora species were identified within the Project Area, which are listed as Category 3 Restricted matters under the *Queensland Biosecurity Act 2014.*
- A total of 54 non-native flora species were identified within the Project Area which are listed as a General Biosecurity Obligation under the *Queensland Biosecurity Act 2014*.
- It is also noted that nests considered likely to be of Fire ants (*Solenopsis invicta*) were also sighted throughout the Project Area, but no individuals of the species were sighted. This species is listed as a General Biosecurity Obligation under the *Queensland Biosecurity Act 2014*. Further the entire Project Area is located within Red Imported Fire Ant (RIFA) (fire ant) biosecurity zone 2, requiring appropriate fire-ant safe practices as per *Queensland Biosecurity Act 2014.*

Effects from major events

No observations were recorded on recent effects from bushfire, flood or other major events affecting the condition of the Project Area.

Effects from land use

Generally, the habitat integrity has been compromised throughout the Project Area due to anthropogenic effects, historical vegetation clearing and significant weed invasion. Connectivity is highly modified due to fragmentation throughout, although riparian areas remain relatively intact.

Areas of the Project Area which are located within the Logan City Council zoning jurisdiction are developed as follows:

- WIP – road reserve
- Part of IPS – Option 1 (Lot 1 on RP43898) – currently vacant land
- IPS – Option 2 – includes a residential property
- Temporary Laydown Area – contains the Seqwater Pilot Plant

Areas of the Project Area which are located within the Economic Development Queensland zoning jurisdiction (i.e. the WTP, some components of the WIP and part of IPS – Option 1 (part of Lot 30 SP246743 and part of Lot 31 on SP208810) are within the Greater Flagstone PDA and are therefore anticipated to be developed as a matter of State priority. The WTP site is indicated for ‘future utilities’ (i.e. water supply) within the vision map of the Greater Flagstone PDA, indicating that the intention for Lot 141

on S312748 to be developed was known at the creation of the Greater Flagstone Urban Development Area Development Scheme in consultation with Seqwater. Therefore, the Project is consistent with local existing planning and zoning laws (described further below).

Distance to major towns

The Project Area is located within the Logan City Council Local Government Area. The WTP site is approximately 40 kilometres south of the Brisbane central business district. The town of Jimboomba is situated approximately five kilometres northeast of the WTP site.

Zoning of Project Area

WTP

The WTP is located within the Urban Living zone of the Greater Flagstone Urban Development Area Development Scheme.

Within the vision map of the Greater Flagstone PDA, the WTP lot is indicated for 'future utilities.' This indicates that the intention for the WTP lot to be established as a 'utilities' use was known at the creation of the Greater Flagstone Urban Development Area Development Scheme in consultation with Seqwater.

Therefore, the intended function of the WTP is in line with the site's current zoning, as intended under the development scheme.

WIP

The WIP is located within road reserve, which does not carry any other form of zoning.

IPS – Option 1

The zoning of the IPS Option 1 is as follows:

- Lot 1 RP43898 is in the Rural Residential Zone of the Logan Planning Scheme 2015 v9.2.
- Lot 31 SP 208810 and Lot 30 SP 246743 are within the Greater Flagstone PDA and within the Urban Living zone of the Greater Flagstone Urban Development Area Development Scheme.

IPS – Option 2

The zoning of the IPS Option 2 is as follows:

- Lot 23 on RP133226 is in the Rural Residential Zone of the Logan Planning Scheme 2015 v9.2.

Temporary Laydown Area

The zoning of the Temporary Laydown Area is as follows:

- Lot 200 RP200030 is zoned as Recreation and Open Space in the Logan Planning Scheme 2015 v9.2.

Adjoining zoning

WTP

The adjoining zoning of the WTP site is the Urban Living zone of the Greater Flagstone Urban Development Area Development Scheme.

The purpose of the Urban Living zone is to be developed as neighbourhoods (majority of the intended use), and to also accommodate a wide range of non-residential uses such as local shops, educational establishments, and nature areas.

A development approval exists (DEV2016/811) granted by Economic Development Queensland to the developer, Celestino Developments Pty Limited, for development of the Riverbend community within the Greater Flagstone PDA. The approved Riverbend Master Plan details the long-term development intent for

the subject site, which includes:

- Approximately 7,000 residential dwellings
- Primary School
- District Centre
- Neighbourhood Centre

Recreational facilities, including a District Sports Park, Regional Recreation Park, Neighbourhood and Local Parks, linear parks

- Linear open spaces associated adjoining the internal watercourse and Logan River.

WIP

The WIP is located within two planning jurisdictions, as it runs partly within the Greater Flagstone PDA.

Within the Greater Flagstone Urban Development Area Development Scheme, the adjoining zone to the WIP is the Urban Living zone.

Within the Logan Planning Scheme 2015, the zones that are adjacent to the WIP are the rural residential zone (most significant adjoining area); communities facilities; environmental management conservation; recreation and open space.

The purpose of the rural residential zone is to provide for residential uses and activities on large lots, including lots for which the local government has not provided infrastructure and services.

IPS – Option 1

The IPS – Option 1 is a triangular parcel bound by a railway; Teviot Road; and the Greater Flagstone PDA.

Within the Logan Planning Scheme 2015, the adjoining zoning is the rural residential zone (Park Living precinct).

Within the Greater Flagstone Urban Development Area Development Scheme, the adjoining zoning is the Urban Living zone.

IPS – Option 2

Lot 23 on RP133226 is bounded to the south by Tyson Road, Teviot Road and the Greater Flagstone PDA to the east and rural residential lots to the north and west.

Temporary Laydown Area

The Temporary Laydown Area is surrounded by land zoned as Rural Residential, Environmental Management and Conservation, the Greater Flagstone PDA and the Logan River.

Access

WTP

The existing road infrastructure of Bushland Road will be utilised during all stages (construction and operation). The WTP site has existing access off Bushland Road.

WIP

The road reserve along Teviot Road is quite wide (e.g., 60 metres width, of which the existing road takes up approximately 13 metres width). It is anticipated the road reserve is sufficient for access as needed for the length of the WIP.

IPS – Option 1

Access into the IPS - Option 1 will be via Teviot Road. The IPS lot is currently undeveloped, with an informal dirt access track into the parcel coming off the road shoulder. Access to and from the IPS lot will be via Teviot Road.

IPS – Option 2

Access into the IPS - Option 2 will be via Teviot Road.

Temporary Laydown Area

Access to the temporary laydown area is anticipated to be via a temporary bridge near Cedar Grove Weir and/or via Couldery Court.

3.1.2 Describe any existing or proposed uses for the project area.

Existing land uses

Land uses relevant to the Project Area include:

WTP

Lot 141 on S312748 is partially developed for the South West Pipeline and Wyaralong Tanks Project. The remainder of the land parcel is undeveloped.

A current easement burdens the land of Lot 141 on S312748, over Easement A on SP344808 in favour of Energex Limited. The easement was granted to Energex Limited on 19 June 2024 for the purpose of supply of electricity to the Wyaralong Tanks Project. The proposed development for the Project therefore does not compromise or impede the easement.

The reserve land Lot 47 on SL4065 is currently undeveloped, apart from a section of dirt track in the northeast corner of the lot.

Lot 3 on SP201569 is undeveloped, apart from an unsealed track which contains the South West Pipeline and portions of the Cedar Grove Weir.

The Logan River contains the Cedar Grove Weir immediately downstream from the WTP site.

Water within this weir pool is predominantly sourced from both the Logan River and Teviot Brook (a tributary of the Logan River, upstream from the Proposed Action area) sub-catchments within the Logan Basin Water Plan.

Most of these two sub-catchments are comprised of grazing land uses with rural residential properties.

Extensive areas of various forms of irrigated agriculture (including cropping and modified pastures) are located adjacent the Logan River, with similar land uses adjacent along Teviot Brook upstream of the confluence with the Logan River.

The Logan River in vicinity of the Project also contains the Wyaralong Dam, located on the Teviot Brook. At full supply, the dam can hold approximately 102,883 ML of water. The dam currently provides recreation facilities and has become a major tourism attraction for the Scenic Rim region.

WIP

The WIP is wholly contained within a road reserve. The existing roads are Teviot Road (predominantly) and Bushland Road.

IPS – Option 1

Lot 1 RP43898 is currently undeveloped. Lot 30 SP246743 in the area to be used for the IPS comprises vegetation. The whole land parcel is part of Greenbank Community Centre. Lot 31 SP208810 is partly developed.

IPS – Option 2

A residential property is located on the land parcel.

Temporary Laydown Area

The land parcel is currently used for the Seqwater pilot plant. All the land surrounding the plant is currently vacant and has previously been used for temporary laydown purposes.

Surrounding area

WTP

The land surrounding the WTP includes large areas of rural residential uses, emerging community and rural uses, low-density residential properties (including cleared land for the future planned development of the Riverbend housing estate), and smaller pockets of environmental management and conservation, recreation, and open space uses.

WIP

The dominant land use surrounding the WIP is rural residential land, as well as community facilities, environmental management conservation, recreation, and open space use.

IPS – Option 1

The lot is predominantly surrounded by rural residential land. It shares its south boundary with a community centre, within priority development area. It shares its west boundary with a railway corridor, used for state fright services. Its east boundary is Teviot Road followed by rural residential properties.

IPS – Option 2

The lot is predominantly surrounded by rural residential land. To the south of the lot, is Tyson Road and residential properties. It shares its east boundary with Teviot Road, followed by priority development area. It shares its north and west boundary with other residential properties.

Temporary Laydown Area

To the north of the lot flows Logan River, followed by priority development area where the proposed WTP will be situated. The lot shares its west boundary partly with local road named Dennis Road and partly with priority development, low density residential area. It shares part of the south boundary with environmental management and conservation area and the rest of south boundary and east with rural residential areas.

Proposed (future) land uses

WTP

Within the vision map of the Greater Flagstone PDA, the WTP lot is indicated for ‘future utilities,’ which is consistent with the Proposed Action.

The listed purpose on the title of Lot 47 on SL4065 is for water supply, with Seqwater listed as the trustee (as the Queensland Bulk Water Supply Authority), which is also consistent with the Proposed Action.

WIP

It is understood that the WIP corridor, being in a road reserve with existing paved roads, will continue to remain road reserve along with various utilities and services. This is consistent with the Proposed Action.

IPS – Option 1, IPS – Option 2, Temporary Laydown area

There are no known proposed future land uses for these land parcels

Previous land uses

Previous land uses in the vicinity of the Project Area are predominantly rural and rural residential, with properties on both sides of the Logan River comprising a mixture of arable and grazing land uses.

Lot 141 on S312748 has been owned by Seqwater for future development of the Proposed Action since February 2016. Lot 47 on SL4065 has been gazetted for the purpose of “water supply” and Seqwater has been the trustee listed on the title since August 2009. The land parcel adjacent to the Cedar Grove Weir (Lot 3 on SP201569) has been held by Seqwater for future development of the Project since July 2009. Both Lot 47 on SL4065 and Lot 3 on SP201569 were held by Queensland Water Infrastructure Pty Ltd (QWI) prior to Seqwater. By operation of section 6 of the South East Queensland Water (Restructuring) Regulation 2011, Seqwater is the successor in law to QWI and as such became the land owner of the lots upon implementation of the regulation.

Development has occurred on Lot 141 on S312748 for the South West Pipeline and Wyaralong Tanks Project; and the Cedar Grove Weir was constructed circa 2007. Both of these projects have been carried out as part of the overall water supply management scheme and water supply strategy for the South East Queensland Region.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The surrounding area has experienced major growth and development; there are limited natural features or other important or unique values applicable to the Project Area. It is considered that the most significant natural feature is the Logan River, although the Logan River is also heavily modified with existing development including dams, the Cedar Grove Weir, irrigation systems, point source discharges from industry and the Cedar Grown Wastewater Treatment Plant and others etc.

Under Queensland legislation (Environmental Protection (Water and Wetland Biodiversity) Policy 2019), the Logan River near the Project Area is considered a moderately disturbed freshwater system, and the environmental values associated with the Logan River at the location of the Proposed Action are: aquatic ecosystems, irrigation, farm supply/use, stock water, aquaculture, human consumer, primary recreation, secondary recreation, visual recreation, industrial use and cultural and spiritual values.

The nearest location to the Project Area which is known to provide recreation facilities and visitor attraction is the Cedar Grove Environmental Centre, located approximately 1 km southwest of the Project Area on the southern side of the Logan River. The Cedar Grove Environmental Centre is a park featuring a 2.5 km walking track along the Logan River; as well as shaded seating and picnic tables along with basic amenities.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The general gradient of the Project Area is falling from the highest point at the northernmost extent at the IPS - Option 1 (being approximately 70 m Australian Height Datum (AHD)) and falling to the lowest point at the WTP on the banks of the Logan River (at approximately 20 m AHD at the top of the banks). The slope is not constant, but undulates along the length of the WIP alignment. The topography decreases to approximately 16 m AHD at the creek crossings along the WIP. The WTP site itself slopes from its highest point of approximately 60 m AHD at the north, down to the Logan River in the south.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

The results of the desktop and ecological field surveys are provided in the Ecological Assessment Report (EAR) provided as Appendix 6.

Conservation significant species and habitat

Desktop and field-based ecological investigations undertaken for the Project identified a range of Critically Endangered, Endangered, Vulnerable, and Near Threatened (CEEVNT) species listed under the EPBC Act as having potential to occur within the Project Area. A likelihood of occurrence assessment was completed for the Project (refer SIA in Appendix 2).

A total of 54 CEEVNT species were assessed as having potential to occur within the Project Area. Of these, 10 species were assessed as having a known, high, or moderate likelihood of occurrence as follows:

- Greater glider (*Petauroides volans*)
- Grey-headed flying fox (*Pteropus poliocephalus*)
- Koala (*Phascolarctos cinereus*)
- Mary river cod (*Maccullochella mariensis*)
- South-eastern glossy black-cockatoo (*Calyptorhynchus lathami lathami*)
- Regent honey eater (*Anthochaera phrygia*)
- Spotted-tail quoll (SE mainland population) (*Dasyurus maculatus maculatus*)
- Swift parrot (*Lathamus discolor*)
- Yellow-bellied glider (*Petaurus australis australis*)
- White-throated needletail (*Hirundapus caudacutus*)

Migratory species subject to significant impact assessment include:

- Fork-tail swift (*Apus pacificus*)
- Oriental cuckoo *(Cuculus optatus*)
- Yellow wagtail (*Motacilla flava*).

The WTP area was found to contain the following habitat resources:

- Dead stags and hollow bearing trees
- Vegetation that qualifies as koala habitat
- Canopy cover suitable for shelter, foraging and perching
- Woody debris (i.e. felled timber, including hollow-bearing logs and tree bark in groundcover)
- Leaf litter
- Connectivity through riparian vegetation.

Several hollow bearing trees, decorticating bark, nests, dreys and large hollow logs were detected within the WTP area. It is likely the habitat within the WTP area would be used by a number of species, such as koalas, for foraging or movement. The corridor of trees along the northern border of the WTP site has potential to facilitate the movement of koalas and greater gliders, as well as providing foraging and shelter opportunities.

There are areas that support non-juvenile Koala habitat trees and provides habitat value for the Koala. No scats or scratches indicative of the Koala were identified, however numerous sightings have been recorded throughout the surrounding area. The Atlas of Living Australia notes over 50 spatial recordings of the species within 10 km of the Project Area from the past 20 years, including records from 2024. Historical sightings (498 within 2 km of the Disturbance Footprint) suggest that the species has a moderate density within the Project Area.

Areas of vegetation containing winter flowering *Eucalypts* and *Melaleuca* species were recorded. These areas have the potential to provide foraging habitat for the Grey-headed flying fox.

Areas of Eucalypt forest with hollow bearing trees were identified, as well as smaller fragmented habitat patches that connect to larger habitat. This habitat is suitable for Greater glider and Yellow-bellied glider. The Yellow-bellied glider prefers smooth bark *Eucalypt* and ally species, which were present in abundance with *Eucalyptus tereticornis* and *Corymbia citriodora*.

Areas of vegetation containing *Casuarina* and *Allocasuarina* species were present within and adjacent the field survey area. These areas have the potential to provide foraging habitat for the Glossy-black cockatoo. It is noted that areas of mature, *Casuarina* and *Allocasuarina* trees were isolated.

Aerial habitat for White-throated needletail (*Hirundapus caudacutus*) and the Fork-tail swift (*Apus pacificus*) was present above the vegetated areas. This species may utilise overhead foraging for insects from the forest and wetlands below. It is known that the species will not be breeding onsite as both species do not breed in Australia, due to being non-breeding summer migrants.

Whilst no Spotted tail quoll denning habitat was observed, the species is known from the region, and is likely to utilise intact riparian corridors for dispersal and foraging.

It is noted that, under these ecological surveys, habitat presence has been used as a proxy of species occurrence (i.e., no targeted threatened species surveys have been undertaken).

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Vegetation and Threatened Ecological Communities

The Project Area is generally in a developed area (along the pipeline and IPS). The WTP site itself comprises a mix of developed and undeveloped land. Regional Ecosystems (REs) are vegetation communities that are mapped throughout Queensland to various bioregions, geology, landform and soil under the Queensland *Vegetation Management Act 1999* (VM Act). During the ecological field survey, six ground-truthed REs intersect the Project Area. These are summarised in Table 5-4 in the SIA in Appendix 2. Details of the field surveys are provided in the EAR in Appendix 6.

Threatened Ecological Communities (TECs) within the Project Area have been mapped based on corresponding REs where condition thresholds, as defined in the relevant conservation advice, have been met. REs that occur in analogous locations but do not meet the required condition classes have not been mapped as TECs.

This assessment confirmed that two TECs occur within the Project Area:

- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland – Analogous with RE 12.3.6 which is mapped within the Project Area
- Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions – Analogous with RE 12.3.3, 12.3.11 and 12.3.7 which is mapped within the Project Area.

A field assessment was undertaken during surveys in April 2024 to determine the presence, patch size and condition thresholds of these TECs within the Project Area. A ground-truthed map for TECs has been developed and can be seen in Figure 5-2 in the SIA in Appendix 2.

Invasive flora species (weeds) were identified throughout the Project Area during ecological field surveys, with some species common in disturbed areas across the area (e.g., *Ambrosia artemisiifolia* (annual ragweed), *Sapindaceae* (balloon vine), *Senecio madagadcariensis* (fireweed), *Sporobolus africanus* (Parramatta grass) and *Sporobolus pyramidalis* (giant rats tail grass)).

Generally, the habitat integrity has been compromised throughout the Project Area due to anthropogenic effects, historical vegetation clearing and significant weed invasion. Connectivity is highly modified due to fragmentation throughout, although riparian areas remain relatively intact.

Geology and soils

The surface geology along the Project Area primarily consists of Jurassic to Triassic aged variable sedimentary formations, although quaternary aged alluvium is found on small portions of the alignment, typically at locations corresponding to watercourses.

Existing soils within the area have been assessed using publicly available information through Queensland Globe (QGlobe) and the Land Resource Assessment of the Logan and Albert Rivers Catchment (LARA) 2019. Based on the mapping the key soil types expected to encounter within the Project Area are the texture contrast Chromosols and/or acidic Kurosols in majority of the area with some sandy Tenosols and Rudosols in the north and well-structured Dermosols in the south.

Current acid sulfate soils mapping (Queensland Globe) shows that there is a low risk for acid sulfate soils within the Project Area. The Logan City Plan 2015 indicates that the distribution of acid sulfate soils in the region is generally associated with the creeks of the Logan River; being namely Flagstone Creek, Abrade Creek and Teviot Creek. An acid sulfate soil investigation undertaken in the Project Area by Aurecon in 2024, focused on the creek crossings. Due to the presence of potential acid sulfate soils at varying depths and locations in the Project Area an acid sulfate soil management plan is required as part of construction environmental management.

A search of the Queensland Environmental Management Register (EMR) and Contaminated Land Register (CLR) was undertaken which found no listed notifiable activities for:

- Lots 141 on S312748 and 47 on SL4065, on which the WTP and associated reserve land is situated
- Lot 1 on RP43898 (IPS Site Option 1)
- Lot 23 on RP133226 (IPS Option 2)
- Lot 200 on RP200030 (Temporary Laydown Area).

The WIP alignment occurs on road reserve and road reserve properties, which are not subject to the EMR/CLR searches.

A soil contamination assessment was undertaken by Aurecon, alongside geotechnical investigations from 18 June 2024 to 18 July 2024 for the WIP alignment along Teviot Road and between 10 February 2025 and 19 February 2025 for the WIP alignment along Bushland Road and the WTP area, as a broad preliminary screen for contamination for volatile and semi volatile hydrocarbons and metals/metalloids.

All results for volatile and semi volatile hydrocarbons were reported below the laboratory limit of reporting, and were below the screening criteria for human health and ecological protection (which is 300 milligrams per kilogram (mg/kg)), with the exception of two natural soil surface samples (from a depth of 0.0 – 0.1 metres below ground level) collected at the test pits (TP) TP57 (350 mg/kg, or approximately 17% higher than the criteria) and TP40 (390 mg/kg, or 30% higher than the criteria), which are in the northern third of the WIP alignment. TP57 is located approximately 170 metres north of the intersection of Leanne Court and Teviot Road, while TP40 is located approximately 120 metres south of the intersection of Hives Road and Teviot Road, and is situated near a service station, which is suspected to be the source of hydrocarbon runoff for this exceedance site.

All other results for metals/metalloids are below the adopted screening criteria for human health and ecological protection.

Based on the current preliminary contamination investigations, it is anticipated that during construction excavations, there is a low potential of encountering contamination in soil at select locations along Teviot Road. The WIP along Bushland Road, and the WTP area, reported absence of contamination.

3.3 Heritage

3.3.1 Describe any Commonwealth Heritage Places Overseas or other places recognised as having heritage values that apply to the project area.

List of Overseas Places of Historic Significance to Australia

The “List of Overseas Places of Historic Significance to Australia” comprises:

- Anzac Cove, Gallipoli, Turkey
- Kokoda Track, Papua New Guinea
- Howard Florey's Laboratory, Sir William Dunn School of Pathology, United Kingdom.

The Project does not have any footprint in the proximity to, and therefore does not have the potential to impact on, any of the places listed in the “List of Overseas Places of Historic Significance to Australia.”

Other places recognised as having heritage values

The following statutory databases were searched and returned no results for the Project Area:

- Commonwealth Heritage List
- National Heritage List
- Queensland Heritage Register
- Logan Planning Scheme 2015 Heritage Overlay.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

Aboriginal Party

The Project Area is situated within the country of the Danggan Balun (Five Rivers) People (WTP, WIP IPS Option 2 and part IPS – Option 1, Temporary Laydown Area) and the Yuggera Ugarapul People (part of IPS Option 1).

Refer to Appendix 7.

Aboriginal heritage values and research

A search was conducted of the Queensland Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism Aboriginal and Torres Strait Islander cultural heritage database and register. This search returned 20 registered cultural heritage sites located within 100 metres of the Project Area, 19 of which have the same site identification, KB:H54 (artefact scatter). Within close proximity to the Project Area, six registered and approved cultural heritage management plans, associated with the following reference numbers and details were found:

- CLH018002 – Cedar Grove Waste Water Treatment Plant and Pipeline, sponsored by the Logan City Council, with the Danggan Balun (Five Rivers) People
- CLH021007 – Riverbend Project, sponsored by Celestino Pty Ltd, with the Danggan Balun People
- CLH021007 – Riverbend Project, sponsored by Celestino Pty Ltd, with the Yuggera Ugarapul People.
- CLH000417 – Southern Regional Water Pipeline Project, sponsored by Southern Regional Water Pipeline Alliance, with Jagera People #2
- CLH017003 – Mirvac Greenbank Project, Mirvac Queensland Pty Ltd, with Jagera People #2

Desktop due diligence assessments have been carried out for the Project, against the Duty of Care Guidelines published in 2004 (gazetted as part of the legislation under section 28 of the Queensland Aboriginal Cultural Heritage Act 2003). These have been conducted by Niche Environment and Heritage, in 2023, 2024 and 2025.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

Nature of surface water flows

The surface waters of the Project Area are located within the Logan-Albert drainage basin, Logan River drainage sub-basin, with flows ultimately travelling from the southwest towards the northeast. At the proposed WTP site, the inferred natural stormwater drainage direction based on current site topography is in a southerly direction towards the Logan River. The Logan River generally has permanent flows, whereas the watercourses and drainage features which are intersected by the WIP are a mixture of permanent and ephemeral. The watercourses and drainage features are shown on Figure 2 in Appendix 1 of the Referral Report.

There are four watercourses intersecting the Project Area pursuant to the *Water Act 2000*. These are:

- The Logan River (adjacent to the WTP)
- Abrade Creek (intersected by the WIP)
- Flagstone Creek (intersected by the WIP)
- Unnamed tributary of Logan River (intersected by the WIP)

A further seven "drainage features" defined by the Queensland *Water Act 2000* also intersect the WIP alignment.

Water quality impact assessment

The Project has undertaken a water quality impact assessment of proposed event based operational discharges from the WTP to the Logan River including identification of mitigation measures where required. The assessment indicates that the reference design discharge scenarios will typically have a negligible impact to water quality within the Logan River, but where event discharges occur when flows are in the lower range after the poor water quality event, there is potential for minor impacts in turbidity, aluminium and ammonia to occur, albeit concentrations in the Logan River would not increase to levels expected to be experienced during the preceding event. Despite only minor impacts being predicted, discharge limits are proposed to minimise the effect on the receiving environment in terms of not exacerbating acute or chronic toxicity risks (particularly aluminium) or prolonging periods of physical or chemical stress. Discharge limits are proposed for pH, turbidity, total and soluble aluminium, ammonia, sulfate, sodium, fluoride and monomer.

Nature of groundwater flows

A geotechnical investigation was undertaken by Aurecon along the WIP alignment and IPS – Option 1 from 17 June 2024 to 5 July 2024 (not part of the Proposed Action), within the dry and mild winter season in Southeast Queensland. Groundwater was not always encountered within test pits and drilled boreholes, 0.5 to 3.0 metres below existing ground level (i.e., 23.4 to 19.5 m AHD). At the WTP site, a geotechnical investigation was undertaken in February 2025, within the wet season. Groundwater was not encountered.

There are several registered water bores within proximity to Teviot Road. Most of the bores installed within close proximity to the existing water bodies typically have potential unconfined groundwater within the Quaternary aged sediments. Bores installed further away from these water bodies generally tend to have unconfined aquifers within the Jurassic-aged bedrock formations.

Based on the existing groundwater information and the Project's reference design, it is anticipated that groundwater will not be generally intercepted during construction; however, some shallow perched groundwater might seep into excavation pits if left open for very extended periods. During operational activities, the storage pond for potential residual streams from the water treatment process is proposed to be lined and equipped with leak detection, and will be operated as "always empty;" in the way that, as soon as practicable, any stored residual streams will return to the head of the WTP plant for incorporation into the treated water system. Thus, it is not anticipated that groundwater will be impacted by operational activities.

The Queensland Globe online mapping tool shows potential “alluvial aquifers with near-permanent flow” along the riparian zone of the Logan River at the WTP site with the potential to support groundwater dependent ecosystems, as well as along drainage features and watercourses along the pipeline.

Given the nature of the Project, which is expected to only intercept shallow perched groundwater and not involve the taking of any groundwater from aquifers, impacts to groundwater are not considered significant; and potential impacts to groundwater dependent ecosystems or groundwater flows are not anticipated.

Connectivity to any Ramsar Wetland

Moreton Bay, a wetland of international importance (i.e., a Ramsar protected wetland) is located downstream more than 30 kilometres from the Project Footprint, and is situated approximately 20 kilometres east of the Project Area. The Project Area is not directly connected to Moreton Bay, but is upstream of Moreton Bay via the Logan-Albert drainage basin.

Moreton Bay covers over 120,000 ha from the southern point of South Stradbroke Island to the northern point of Bribie Island. It holds outstanding coastal wetland values, including wetland dependent protected flora, shorebird habitat, and habitat for marine species. As per Section 1.2.6 of this Referral, legislation protecting the environmental and hydrological values of the wetland are in place, ensuring potential impacts from the Project and all other developments are managed sustainably, with appropriate regulation and mitigation as relevant. In the case of the Proposed Action, the take of water from the Logan River will occur upstream of an authorised weir (Cedar Grove Weir), and only in accordance with the Proposed Action’s existing water licence and water allocation under the Queensland *Water Act 2000*.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no listed World Heritage Properties located within the Project Area. The nearest World Heritage Property are the Gondwana Rainforests of Australia, located approximately 35 kilometres south-southeast of the Project Area, to approximately 50 kilometres west of the Project Area. No direct or indirect impacts are anticipated; the Gondwana Rainforests of Australia are not downstream of the Project Area, and not within the same airshed, and therefore not in sufficient proximal location to one another for likely impacts.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

As per the Protected Matters Search Tool results, there are no listed National Heritage Properties located within the Project Area. The nearest National Heritage Property is the Gondwana Rainforests of Australia, located approximately 35 kilometres south-southeast of the Project Area, to approximately 50 kilometres west of the Project Area. No direct or indirect impacts are anticipated; the Gondwana Rainforests of Australia are not downstream of the Project Area, and not within the same airshed, and therefore not in sufficient proximal location to one another for likely impacts.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
Yes		Moreton Bay

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There is no direct impact anticipated from the Proposed Action on Moreton Bay, as the Project Area is entirely outside the Moreton Bay Ramsar Wetland boundary by over 40 kilometres geographically and 75 kilometres by river.

Construction activities for the Project may result in a localised and temporary change to upstream surface water flow, such as from provision of hardstand or redirection of runoff into stormwater treatment devices. A CEMP and Erosion and Sediment Control Plan will be prepared and implemented during the construction phase.

All runoff from the site during the operational phase will be treated via a stormwater quality treatment system. It is currently proposed that site runoff will be directed to a bioretention basin (located on the southern corner of the site) via a combination of overland flow and drainage pit and pipe network. Operational activities for the Proposed Action will result in taking water from the Logan River, for treatment and onshore use, and will be carried out under an existing water licence, being the Resource Operations Licence: Logan River Water Supply. Periodic / event based operational discharges from the WTP will occur during poor water quality events in the Logan River. The proposed discharges will only make up a minor proportion of the overall flow in the Logan River during periods of release and a negligible portion of the total catchment flow draining to the Moreton Bay Ramsar wetland. The discharge also just involves releasing water originally extracted from the Logan River at Cedar Grove weir, as opposed to being introduced from an alternative source in surplus to the existing system. Therefore, the proposed discharge will not result in a measurable change in the hydrological regime of the wetland. The discharge will be carried out under an environmental authority licence regulated strictly under the Queensland *Environmental Protection Act 1994.*

The Project has undertaken a water quality impact assessment of proposed event based operational discharges from the WTP to the Logan River including identification of mitigation measures where required. The assessment indicates that the reference design discharge scenarios will typically have a negligible impact to water quality within the Logan River, but where event discharges occur when flows are in the lower range after the poor water quality event, there is potential for minor impacts in turbidity, aluminium and ammonia to occur, albeit concentrations in the Logan River would not increase to levels expected to be experienced during the preceding event.

The Moreton Bay Ramsar Wetland is, further, inherently protected from indirect impacts from the Proposed Action, through the controls already in place for the Cedar Grove Weir and its immediate environmental surroundings. Both the Cedar Grove Weir and Wyaralong Dam developments were subject to assessment under the EPBC Act, and are now in place and operational (referrals numbered 2006/2731 and 2006/3157, respectively). The Wyaralong Dam development was determined to be a controlled action and its approval includes conditions relating to the Moreton Bay Ramsar Wetland as a relevant MNES. The Cedar Grove Weir was not deemed a controlled action, and is governed by regulations under the Queensland Water Plan (Logan Basin) 2007 subordinate to the Queensland *Water Act 2000*.

In addition to the inherent protection via the existing management of the Logan River system within which the Proposed Action will be constructed and operated, a significant impact assessment has been undertaken and determined the Proposed Action is unlikely to have a significant impact on the Moreton Bay Ramsar Wetland (refer to Appendix 2).

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
Yes	No	Anthochaera phrygia	Regent Honeyeater
No	No	Argynnis hyperbius inconstans	Australian Fritillary
No	No	Arthraxon hispidus	Hairy-joint Grass
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Coeranoscincus reticulatus	Three-toed Snake-tooth Skink
No	No	Coleus habrophyllus	
No	No	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot
Yes	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
No	No	Fontainea venosa	
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe

Direct impact	Indirect impact	Species	Common name
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
No	No	Hirundapus caudacutus	White-throated Needletail
Yes	No	Lathamus discolor	Swift Parrot
No	No	Leuzea australis	Austral Cornflower, Native Thistle
No	No	Macadamia integrifolia	Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak
No	No	Macadamia tetraphylla	Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut
No	Yes	Maccullochella mariensis	Mary River Cod
No	No	Macroderma gigas	Ghost Bat
No	No	Notelaea lloydii	Lloyd's Olive
No	No	Notelaea x ipsviciensis	Cooneana Olive
Yes	No	Petauroides volans	Greater Glider (southern and central)
Yes	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	No	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Picris evae	Hawkweed
No	No	Planchonella eerwah	Shiny-leaved Condoo, Black Plum, Wild Apple
No	No	Potorous tridactylus tridactylus	Long-nosed Potoroo (northern)
No	No	Pseudomys novaehollandiae	New Holland Mouse, Pookila
Yes	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood
No	No	Rhodomyrtus psidioides	Native Guava

Direct impact	Indirect impact	Species	Common name
No	No	Rostratula australis	Australian Painted Snipe
No	No	Samadera bidwillii	Quassia
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Thesium australe	Austral Toadflax, Toadflax
No	No	Tringa nebularia	Common Greenshank, Greenshank
No	No	Turnix melanogaster	Black-breasted Button-quail

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community
No	No	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
No	No	Lowland Rainforest of Subtropical Australia
No	No	Poplar Box Grassy Woodland on Alluvial Plains
Yes	No	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions
No	No	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions TEC

The Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (Subtropical eucalypt floodplain forest TEC) are analogous to RE 12.3.3, 12.3.7 and 12.3.11 within the Project Area. A total of 9.7 ha of analogues RE was found to be present within the Project Area, however, only 3.5 ha was found to meet the condition class for the TEC. A total of 0.8 ha of the TEC within the Project Area will be directly impacted by the Disturbance Footprint. Indirect impacts are not anticipated to occur to the TEC. It has been determined that the Proposed Action is likely to constitute a significant impact on the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions TEC.

Regent Honeyeater *(Anthochaera phrygia)*

The preferred habitat of the Regent honeyeater (*Anthochaera phrygia*) is wet areas containing fertile soils that provide reliable nectar seasonally in areas of creek flats, river valleys and lower slopes. They are also found in dry eucalypt woodland and open forest in both rural and urban environments with mature eucalypts. Habitat critical for the species is located in the riparian areas within the Project Area. As per the species' habitat requirements, older-growth riparian areas containing *Casuarina* spp. and scattered large-diameter trees may offer marginal foraging habitat for the Regent Honeyeater. The ironbark vegetation present (primarily *Eucalyptus crebra*) within the Project Area is of limited structural maturity and floristic composition, and does not constitute critical foraging habitat for the Regent Honeyeater in its current condition.

The use of trenchless construction methods at the watercourse crossings of Flagstone Creek, Abrade Creek and an Unnamed Tributary of the Logan River has reduced the direct impacts to riparian vegetation within and adjacent to areas mapped as habitat critical for the species. Namely, a total of 1.9 ha of habitat critical to the species survival will be avoided through the use of trenchless construction techniques. However, a residual total of 0.8 ha of habitat critical, defined by marginal foraging habitat, will be impacted within the Disturbance Footprint.

Swift Parrot *(Lathamus discolor)*

The Swift parrot is endemic to south-eastern Australia. This species breeds only in Tasmania and migrates during the autumn and winter months to southeast Queensland as well as both the coastal and southwest slopes of NSW. The preferred foraging trees *Eucalyptus robusta* and *Corymbia maculata* do not occur within the Project Area. However, non-breeding birds preferentially feed in inland box-ironbark and grassy woodlands. The ironbark vegetation present (primarily *Eucalyptus crebra*) within the Project Area is of limited structural maturity and floristic composition, and does not constitute necessary foraging habitat for the species in its current condition. The habitat requirements for the species suggests that the species feed in the largest trees possible, which throughout the Project Area is synonymous with the older growth riparian areas with large diameter larger trees. Associated riparian vegetation considered suitable marginal foraging habitat for the species is located within the Project Area along the WIP, and could be considered necessary for the species.

The use of trenchless construction methods at the watercourse crossings of Flagstone Creek, Abrade Creek and an Unnamed Tributary of the Logan River has reduced the direct impacts to riparian vegetation within and adjacent to areas mapped as habitat critical for the species. Namely, a total of 1.9 ha of habitat critical to the species survival will be avoided through the use of trenchless construction techniques. The proposed clearing within the Disturbance Footprint will affect dispersal habitat for the species, with up to 0.8 ha of low-density and marginal foraging habitat to be cleared.

Greater glider (southern and central) *(Petauroides volans)*

The Greater glider occurs in eucalypt forests along the ranges and coastal plains of eastern Australia from Central Victoria near Daylesford to the Windsor Tablelands in far northern Queensland. The species is nocturnal and feeds solely on young leaves and flower buds of specific eucalypts.

The Disturbance Footprint contains 21.2 ha of habitat critical to the survival of the Greater glider (southern and central) (*Petauroides volans*) that may be directly impacted. Recent records of the species are known within the surrounding areas. The areas of habitat critical within the Disturbance Footprint are predominantly located on the edges of habitat patches, directly adjacent and parallel to current fragmentation (i.e. within road corridor).

Koala *(Phascolarctos cinereus)*

Disturbance Footprint contains Core Koala habitat (Queensland Government mapping product). This includes mapped remnant habitat which contains suitable food and habitat trees for the Koala (*Phascolarctos cinereus*). Relatively intact large patches of vegetation exist to the north (Greenbank Military Training Area) and west (Flinders Peak Conservation Park, Spring Mountain Reserve) of the Project Area that are likely refuges for the species. The Disturbance Footprint contains vegetation and habitat with suitable foraging trees for the Koala (*Phascolarctos cinereus*) (Eucalypt and Eucalypt allies). Koalas (*Phascolarctos cinereus*) are likely to use areas within the Disturbance Footprint as foraging, breeding, resting and dispersal habitat.

A total of 27.2 ha of habitat suitable to the species is present within the Disturbance Footprint and may be directly impacted by the Project. 50 ha of dispersal habitat has been mapped within the Disturbance Footprint for the Koala. However, given the staged construction methodology, the linear and temporary nature of the underground pipeline works, and the requirement for progressive site reinstatement, the Proposed Action is not expected to result in a significant or sustained barrier to Koala dispersal.

Mary River Cod *(Maccullochella mariensis)*

Habitat critical to the survival of the species is not known within the Disturbance Footprint, as the Mary River system, located approximately 110 km north of the Project Area, is recognised as the essential system for the species survival. Albeit, a population of the species is known to occur within the Logan River. Fringing habitat on the Logan River riparian zone within the Project Area is dominated by *Callistemon viminalis, Melaleuca spp.,* large remnant *Eucalyptus tereticornis* and other soft wood species. While aquatic-specific surveys were not undertaken, riparian and bank-side assessments identified no key features of breeding or sheltering habitat (e.g. large submerged logs, complex snags) within the Disturbance Footprint. There is the potential for indirect impacts during the construction phase from direct runoff into the Logan River and during operations due to the discharge from the WTP. These will be managed through the implementation of management plans.

Grey-headed flying fox *(Pteropus poliocephalus)*

Habitat critical to the survival of the species is centred around availability of spring and particularly winter flowering species of certain trees. An assessment against the definition for habitat critical to the survival of the species relevant to the Disturbance Footprint, has been addressed in the SIA in Appendix 2, and concludes that the 27.2 ha of Disturbance Footprint is considered to contain habitat critical to the survival of the species and may be directly impacted by the Project.

South-eastern glossy black-cockatoo *(Calyptorhynchus lathami lathami)*

Habitat critical to the survival of the species is outlined in the Significant Impact Guidelines. An assessment against the definition for habitat critical to the survival of the species relevant to the Disturbance Footprint, published by DCCEEW, has been addressed in the SIA in Appendix 2 and concludes that the 3.5 ha of Disturbance Footprint is considered to contain habitat critical to the survival of the species and may be directly impacted by the Project.

Yellow-bellied glider (south-eastern) *(Petaurus australis australis)*

The yellow-bellied glider (south-eastern) has a widespread, yet patchy distribution from south-eastern Queensland to far south-eastern South Australia. The species prefer winter-flowering and smooth-barked eucalypts trees due to the food source (insect prey underneath loose bark of tree) they provide.

Habitat critical to the survival of the yellow-bellied glider (south-eastern) is defined within its approved conservation advice. An assessment against the definition for habitat critical to the survival of the species relevant to the Disturbance Footprint, has been addressed in the SIA in Appendix 2 and concludes that the 27.2 ha of Disturbance Footprint is considered to contain habitat critical to the survival of the species and is likely to be directly impacted by the Proposed Action.

Spotted-tailed quoll *(Dasyurus maculatus)*

In Queensland, the Spotted-tailed quoll occurs in the southeast; coastally from Bundaberg to the New South Wales border, and inland to Monto and Stanthorpe. Habitat requirements include suitable den sites such as hollow logs, tree hollows, rock outcrops or caves. There is no defined habitat critical for the Spotted-tailed quoll (*Dasyurus maculatus maculatus*). However, the Project Area does contain suitable habitat for the species with the presence of Eucalypt woodlands, and riparian connectivity areas. The Proposed Action will impact 0.5 ha of suitable habitat for the species within the Disturbance Footprint as outlined in the SIA in Appendix 2.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions TEC

The use of trenchless construction methods at Flagstone Creek, Abrade Creek and an Unnamed Tributary of the Logan River crossings is expected to substantially reduce the extent of direct vegetation clearing (namely 2.1 ha of TEC avoided) within and adjacent to areas mapped as TECs, thereby minimising potential impacts to these sensitive ecological values. However, it is considered that with the removal of 0.8 ha of the TEC, the Project will reduce the extent of the TEC.

Should this occur, it may cause a significant impact through the potential to:

- Reduce the extent of an ecological community
- Adversely affect habitat critical to the survival of an ecological community; and
- Interfere with the recovery of an ecological community.

More information on the TEC, and the full assessment of impact significance for this TEC, is provided in the SIA in Appendix 2.

Greater glider (southern and central) *(Petauroides volans)*

Up to 21.2 ha of habitat critical to the survival of the species may be removed associated within the Disturbance Footprint as part of the Proposed Action. Should this occur, it may cause a significant impact through the potential to:

- Adversely affect habitat critical to the survival of the species.

More information on the species, full assessment of impact significance for this species and appropriate management actions identified, is provided in the SIA in Appendix 2.

Koala *(Phascolarctos cinereus)*

The Disturbance Footprint contains a total of 27.2 ha of habitat suitable to the species. Portions of this habitat, especially where it may be used to reach essential lifecycle requirements, is used as corridors, and is used by important populations, are considered habitat critical to the survival of the species. Foraging and resting critical habitat for the species is located within the Disturbance Footprint. Therefore, it is likely the impact to foraging and resting habitat critical to the survival of the Koala (*Phascolarctos cinereus*) within the Disturbance Footprint is considered to be adverse and may cause a significant impact.

Summary of impact to Threatened Species within the Project Area (significant impact) is provided in Table 3 in the Referral Report.

However, 50 ha of dispersal habitat has been mapped within the Disturbance Footprint for the Koala. The impact to dispersal habitat for the WIP is temporary of nature due to the staged approach for construction, and subsequentreinstatement works. Provisions for dispersal habitat retention at the WTP have been applied to the Project through the implementation of no-go zones within the Project Area.

Grey-headed flying fox *(Pteropus poliocephalus)*

Up to 27.2 ha of Habitat critical for the survival of the Grey-headed flying fox (*Pteropus poliocephalus*) occurs within the Disturbance Footprint based off the habitat critical definition for the species. The National recovery plan describes habitat critical to the survival of the species as winter and spring flowering tree species, native vegetation that is relied upon at integral life stages, and native vegetation in close proximity to Nationally important camps. The nearest Nationally Important Flying-fox Camp is located at Regents Park, Emerald Drive (433), approximately 4 km north of the Disturbance Footprint. As this camp is within 20 km of the Disturbance Footprint, suitable foraging and roosting habitat within the Disturbance Footprint is considered critical to the survival of the species.It is expected that the proposed clearing for the Project would adversely affect habitat critical to the survival of the species.

More information on the species, full assessment of impact significance for this species and appropriate management actions identified, is provided in the SIA in Appendix 2.

Yellow-bellied glider (south-eastern) *(Petaurus australis australis)*

Up to 27.2 ha of habitat critical to the survival of the species may be removed associated with the Disturbance Footprint as part of the Proposed Action. Should this occur, it may cause a significant impact through the potential to:

- Adversely affect habitat critical to the survival of the species.

More information on the species, full assessment of impact significance for this species and appropriate management actions identified, is provided in the SIA in Appendix 2.

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

According to the Significant Impact Guidelines, if the Minister decides that the action is likely to have a significant impact on an MNES, then the action is likely to be also considered a controlled action.

As the Proposed Action has the potential to have a significant impact on five MNES, it is considered likely the Minister may decide the Proposed Action should be considered a controlled action, and require approval under the EPBC Act.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

In accordance with the SIA Guidelines under the EPBC Act, the design and development of the Project has adopted a rigorous, iterative planning process to avoid the likelihood of significant residual impacts on MNES. This supports compliance with the mitigation hierarchy (avoid, minimise, mitigate, offset) under the EPBC Act and is consistent with the principles of ecological sustainable development. This process, undertaken in consultation with relevant stakeholders, has resulted in the application of the avoidance and minimisation measures outlined below.

Multi criteria assessments

The determination of the Project Area for the WIP and the IPS has been informed through rigorous multi-criteria assessments (MCA). Consideration of avoiding MNES where possible, and minimising potential impacts to MNES that cannot be avoided, has been highly weighted during the MCAs to prioritise the avoidance principle.

Details of the MCA completed for the Project Area provided in the Section 4.3 of this referral.

Delineation and protection of key avoidance areas

Throughout the design and planning phases of the Project, a strong emphasis has been placed on the avoidance and protection of ecologically sensitive areas, particularly those known to support MNES. A series of detailed field-based ecological surveys were undertaken across the Project Area (further described in Section 4), enabling site-specific identification of high conservation value features, including remnant *Eucalyptus* spp. with established hollows, which provide critical nesting and sheltering habitat for MNES-listed fauna species. Informed by these investigations, the Project's Disturbance Footprint has undergone progressive refinement to avoid direct impacts to high-value habitat. Key habitat patches, sensitive vegetation communities, and ecological corridors have been clearly delineated and excluded from the Disturbance Footprint, either by directly avoiding them in the design layout or designating them as 'no-go zones' during construction and operation. These areas will be subject to on-ground protection measures, including environmental exclusion fencing, signage, and pre-clearance protocols, to ensure habitat integrity is maintained throughout the life of the Project. The location of no-go zones are provided in Figure 3-1 in the SIA in Appendix 2, with representative photos of these areas captured within this report.

The alignment of the WIP has been confined to one side of Teviot Road as it traverses the road reserve in most locations (refer Figure 3-1 in the SIA in Appendix 2). In some areas of the WIP where constructability of the pipe may be complex, such as due to the presence of public utility plant and other factors, the whole width of the road reserve has been included to allow for flexibility in the design. As the design progresses, the location of the preferred alignment will be confirmed and the Disturbance Footprint updated.

Where the WIP intersects with riparian zones supporting TECs, specifically along Flagstone Creek, Abrade Creek, and an unnamed tributary of the Logan River (all stream order 3/4 watercourses), the Project will implement trenchless construction techniques, such as microtunnelling or horizontal directional drilling (HDD). The length of trenchless crossings in these areas avoids the defined bed and banks (based on a digital elevation model), and associated buffer distance in alignment with the Queensland Governments State Code 16: Native Vegetation Clearing riparian protection limits for stream order 3-4 (25m). These methods have been deliberately selected to limit direct disturbance to watercourses and associated riparian TECs, and to prevent indirect impacts such as sedimentation, altered hydrology, and edge effects, which may otherwise arise from open-cut trenching.These approaches are consistent with best-practice mitigation for linear infrastructure in sensitive riparian environments. The location of trenchless crossing areas within the Project Area is provided in Figure 3-1 of the SIA in Appendix 2.

Furthermore, the Project will retain a minimum 100 m wide vegetated riparian corridor along the Logan River within the WTP land parcel, to be preserved in perpetuity (excluding infrastructure for WTP water intake and discharge). This corridor will play a key role in facilitating fauna movement, maintaining riparian

ecosystem function, and preserving landscape-scale ecological connectivity, particularly for MNES species that are dependent on riparian and alluvial habitats. The location of the 100m-wide corridor is provided in Figure 3-1 of the SIA in Appendix 2.

Utilisation of previously cleared areas

A fundamental principle of the Project's planning and design process has been to minimise environmental disturbance by aligning infrastructure within previously cleared or disturbed areas, wherever feasible. This has included the preferential use of existing road reserves (e.g., Teviot Road and Bushland Road), previously cleared utility easements (such as the SWRP), and other disturbed freehold land parcels. By utilising the already modified environments within the landscape, the Project substantially reduces the need for additional vegetation clearing and avoids direct impacts to remnant native vegetation, including habitat known or likely to support MNES.

The following key utilisation of previously cleared areas is as follows:

- The WIP alignment being contained within the gazetted Teviot Road and Bushland Road corridors, disturbed and maintained road reserves, thereby avoiding direct encroachment into intact vegetation on adjoining tenures
- The selection of infrastructure sites for the IPS have favoured previously cleared or modified freehold land parcels, reducing the extent of new vegetation disturbance
- Access to the discharge pipe from the WTP will utilise the previously cleared access track for the SWP down to the Ceder Grove Weir.

This strategy reflects a landscape-sensitive and ecologically informed approach to the Project's infrastructure planning, where avoidance has been prioritised over mitigation in line with the EPBC Act's impact hierarchy. As a result, the Project Disturbance Footprint limits impact on remnant vegetation.

It is important to note that, as the Project continues through its design development, it is anticipated that there will be a reduction in the Disturbance Footprint.

In line with the findings of the ecological surveys, and the detailed design of the Proposed Action, the following management plans and programs are to be considered and developed for implementation during construction and operational phases as appropriate:

- Construction Environmental Management Plan (CEMP)
- Species Management Program – To include all species that have, or are likely to have, breeding places within the Project Footprint (including colonial breeders)
- Biosecurity Management Plan – To include mitigation measures for the spread of weeds and introduction of pest species (if not included under the CEMP)
- Erosion and Sediment Control Management Plan (if not included under the CEMP)
- Surface Water Management Plan – To include the mitigation measures taken to manage surface water during the construction and operational phases of the Proposed Action
- Fauna Management Plan – To provide a framework to describe how the Proposed Action will address, manage, monitor, and mitigate any impacts to native fauna, including native fish and aquatic species; as well as the presence of a fauna spotter catcher for any vegetation clearing undertaken
- Waste Management Plan
- Noise and Vibration Management Plan
- Air Quality Management Plan
- Lighting (Light Spill) Management Plan
- Acid Sulfate Soil Management Plan (if required)
- Water Quality Management Plan
- Fish Stranding Management Plan
- Landscape and Rehabilitation Management Plan
- Commissioning and Release of Water Plan
- Dewatering Management Plan,

- Fauna exclusion fencing is to be installed at the WTP and IPS sites where practical, to avoid unnecessary impacts (e.g. fragmentation of populations, tangle risks due to barbed wire).
- Any other plans necessary to meet the environmental objectives and performance criteria

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Environmental offsets are currently being considered and will include the development of a Biodiversity Offset Strategy where required. Where removal of vegetation supporting MNES cannot be avoided or further minimised as the Proposed Action design matures, direct offsets are proposed in order to mitigate the loss of the area in accordance with the Australian Commonwealth's EPBC Act Environmental Offsets Policy.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
No	Yes	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	Yes	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
No	Yes	Motacilla flava	Yellow Wagtail
No	No	Pandion haliaetus	Osprey
No	No	Tringa nebularia	Common Greenshank, Greenshank

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

A desktop assessment was undertaken to gain an understanding of the relevant environmental factors for the Project Footprint prior to undertaking subsequent ecological field surveys in March 2023, April 2024 and June 2025.

Migratory species have been assessed for their likelihood of occurrence within the Project Area (refer to the SIA in Appendix 2).

The likelihood of occurrence assessments identifies a species under one of the following categories:

Low – identified from database searches only and no suitable habitat exists within the Project Area.

Moderate – records for the species are from a reliable data source but not specifically recorded within the Project Area. Suitable habitat for this species may be present within the Project Areabut lacks essential habitat features.

High – records for the species are from a reliable data source but not specifically recorded within the Project Area. Suitable habitat for this species exists within the Project Area.

Known – the species has been recorded within the Project Area.

Those species which were identified as having a moderate or higher likelihood of occurrence within the Project Areawere further assessed to determine potential direct or indirect impacts from the Proposed Action. Those species or communities which were identified as having a low likelihood of occurrence were not further assessed.

As per the SIA in Appendix 2, there are three MNES migratory species which are relevant to the Disturbance Footprint:

- Fork-tail swift (*Apus pacificus*)
- Oriental cuckoo (*Cuculus optatus*)
- Yellow wagtail (*Motacilla flava*).

There is no habitat present in the Disturbance Footprint for the Yellow wagtail, which is a non-breeding visitor to Australia; and the Fork-tail swift which does not breed within Australia and is almost exclusively aerial in Australia. Important habitat for the Oriental Cuckoo is present within the Disturbance Footprint, comprising approximately 27.2 hectares however, the Disturbance Footprint represents a relatively small portion of the species' available habitat in the region and is largely surrounded by modified or non-remnant land uses. Importantly, the Project will not result in the removal of habitat that meets the defined area thresholds for this species.

There is no indication that the Disturbance Footprint holds an ecologically significant proportion of a population of any of the three species.

More information on the species, and the full assessment of impact significance for migratory species is provided in the SIA in Appendix 2.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

There is migratory species habitat within the Disturbance Footprint that represents important habitat for the following:

- Fork-tail swift (*Apus pacificus*)
- Oriental cuckoo (*Cuculus optatus*)
- Yellow wagtail (*Motacilla flava*).

The Proposed Action is not considered likely to:

- substantially modify, destroy or isolate an area of important habitat for any of the migratory species, as these species are highly mobile and due to the relatively small area of the habitat within the Disturbance Footprint relative to the remaining area surrounding the Proposed Action area which also contains suitable habitat. Refer to the SIA in Appendix 2 for more detail.
- result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the species since, removal and modification of vegetation during Project works will not allow for an increase above the current baseline in invasive species. Appropriate mitigation measures (outlined in the CEMP and Biosecurity Management Plan) will be implemented during the Project works.
- seriously disrupt the lifecycle of an ecologically significant proportion of the population of any of the migratory species, as there is no indication that the Disturbance Footprint contains any ecologically significant proportion of the population for any of the species for which to disrupt.

Based on the above, it has been determined that the Proposed Action is unlikely to constitute a significant impact on these species.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

As the Proposed Action is not considered to have the potential to have a significant impact on the three migratory species relevant to the Disturbance Footprint, it is considered that the Project is not a controlled action for these matters.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The avoidance and mitigation measures proposed for the Project are outlined in this referral in Section 4.1.4.10.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Environmental offsets are not proposed for migratory species.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Section 22 of the EPBC Act defines nuclear action and nuclear installation. The Proposed Action does not relate to any such activities relating to nuclear or radioactive matters.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no Commonwealth marine parks within a sufficient vicinity of the Project Area for any direct or indirect impacts to be considered possible.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Great Barrier Reef is not within a sufficient vicinity of the Project Area for any direct or indirect impacts to be considered possible.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Proposed Action does not relate in any way to coal mining development or coal seam gas extraction.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There is no Commonwealth Land within a sufficient vicinity of the Project Area for any direct or indirect impacts to be considered possible.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no Commonwealth Heritage Places Overseas within a sufficient vicinity of the Project Area for any direct or indirect impacts to be considered possible.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

Alternate timeline not possible

The Millennium Drought from 2001-2009 led the Queensland Government to urgently invest in securing water supply for South East Queensland's growing population. In response to the twin challenges of a rapidly growing population and reduction in potable water level of service yields, Seqwater initiated the Water Security Investment Program (WSIP) to deliver the timely increase in reliable supply required for continued regional growth and liveability. The Proposed Action is included within the WSIP.

Furthermore, Seqwater has been directed by Queensland law under the State Development and Public Works Organisation Act 1971 and its regulation (State Development and Public Works Organisation Regulation 2020), to undertake the “Wyaralong water treatment plant” planned development project.

The Proposed Action aligns with Seqwater’s 30-year Water Security Program 2023 to provide ongoing water security to South-East Queensland until 2046. The Proposed Action phasing has been developed with consideration to the critical path to deliver “first water” by June 2031.

Given the need to supply potable water supply to the region in a timely fashion, an alternate timeline has not been considered as part of the Proposed Action.

Alternate location not possible

The Project has been designed to avoid MNES as much as practical, through significant efforts in environmental site selection assessments undertaken for the Proposed Action.

WTP site selection

The site of the proposed Wyaralong WTP for the Proposed Action is constrained to Lot 141 on S312748 and Lot 3 on SP201569. There will be no impact to Lot 47 on SL4065. Impacts to MNES within these lots will be avoided and minimised as much as possible. Reasons for the constraints to these land parcels are detailed below.

The Millennium Drought from 2001-2009 led the Queensland Government to urgently invest in securing water supply for South East Queensland's growing population. One of the most significant elements was the creation of the South East Queensland Water Grid (in 2008). The construction of Cedar Grove Weir downstream of the confluence of Teviot Brook and the Logan River (completed in 2007) and Wyaralong Dam on Teviot Brook (completed in 2011) formed part of the strategic response to the Millennium Drought and will provide access to additional surface water resources for the Grid through the construction of the Wyaralong WTP.

To efficiently extract raw water from a riverine source, a water treatment plant requires an adequately sized water pool which is (permanently) hydraulically stable and designed to manage sediment loading and aquatic biological factors. The Cedar Grove Weir was designed specifically for this purpose, and captures the water sources from the Wyaralong Dam (Teviot Brook) and the Logan River. It is therefore an extraction point suitable for a major riverine water supply source.

The ideal design location for a water treatment plant is one which is situated as close as possible to the relevant existing infrastructure, being, the source of raw water; and the connection point where the treated water is to be supplied.

The Wyaralong WTP is intended to deliver additional treated water to the Grid to support future demand growth, water security and continuity of supply objectives in South East Queensland. The Wyaralong WTP will be integrated into the South East Queensland Water Grid by:

- A connection to the existing SRWP
- Supplying water to the growing communities in the Beaudesert (South West Pipeline) and southern Logan areas.

The SRWP network connects Gold Coast treated water resources with the Brisbane treated water resources, and can flow in either direction to support supply needs for either region.

The source of raw water for the Proposed Action is therefore the (existing) Cedar Grove Weir, and the Grid connections are via the (existing) SRWP and South West pipelines This configuration effectively minimises the extent of raw water conveyance and maximises the extent of potable water conveyance, reducing long-term maintenance costs for the system.

Further considerations for siting of the Wyaralong WTP are:

- That the land is sufficiently elevated for adequate flood immunity; and
- The land which is available for acquisition and use.

Seqwater has held the title for the land parcel at 141 Bushland Road, Riverbend 4280 (Lot 141 on S312748) since February 2016, with the Queensland Office of the Coordinator General resuming the land in January 2011. This land parcel (being on the upper-bank side of the Logan River) allows for development of the WTP with a flood immunity above the 1 in 10,000 annual exceedance probability (AEP). The land parcel adjacent to the Cedar Grove Weir (Lot 3 on SP201569) has been held by Seqwater since July 2009, and previously held by Water Infrastructure Pty Ltd (QWI). By operation of section 6 of the South East Queensland Water (Restructuring) Regulation 2011, Seqwater is the successor in law to QWI and as such became the land owner of the lots upon implementation of the regulation.

It is noted there is a parcel of State reserve land at 47 Bushland Road, Riverbend 4280 (lot 47 on SL4065) which is adjacent to the WTP land parcel. The reserve land lists Seqwater as the trustee (as the Queensland Bulk Water Supply Authority) for the purpose of water supply. This land parcel will not be cleared or impacted for the Project works.

As per item 3.1.1 of the Referral Report, the site of the WTP is within the land use zoning jurisdiction of the Greater Flagstone Urban Development Area Development Scheme (in effect since 2011). Within the vision map of the Greater Flagstone PDA, the WTP site is indicated for ‘future utilities,’ indicating that the intention for the WTP lot to be established as a ‘utilities’ use (i.e., a water treatment facility) was known at the creation of the Greater Flagstone Urban Development Area Development Scheme in consultation with Seqwater.

WIP route selection

The final WIP route selection was determined using a multi-criteria assessment (MCA) process summarised below:

- Early 2023 - Six options were originally considered for the alignment of the pipeline as part of the Business Case development phase for the Project. The options were assessed on their relative risks and merits through a multi-criteria analysis process. The criteria considered in the multi-criteria analysis were, the Project’s lifecycle cost, constructability, operability and maintainability, ecology, geological conditions, schedule, cultural heritage; and stakeholder impact.
    - The six alignment options were assessed against the following MNES ecological value items, as indicated by the DCCEEW Protected Matters Search Tool: TECs, conservation significant species and migratory species as well as ecological values regulated under Queensland legislation
    - Two alignments, referred to as Alignment 5 (best scoring) and Alignment 6 (second best) were shortlisted.
- 2024 - ecological surveys were undertaken along both Alignment 5 and Alignment 6, which included ground-truthing MNES within the alignment option footprints. A comparison of the two options indicated that Alignment 5 has less potential impact on MNES than Alignment 6:
    - The total area of impact for Alignment 5 at that stage of the design (i.e., the sum of each individual TEC and/or threatened species habitat impacted) was 191.9 ha, whereas the total area of impact for Alignment 6 was 231.5 ha (an increase of approximately 21%).

    - The Regent honeyeater (Anthochaera phrygia) would have potentially been significantly impacted, if Alignment 6 where utilised, which is not the case for Alignment 5.
    - Due to the less-developed nature of the Alignment 6 environment, potential for habitat fragmentation would have been greater.
- In early 2025, an additional multi-criteria analysis was conducted between Alignment 5, Alignment 6, and a variation of Alignment 1 which was referred to as Alignment 1A. Multiple working groups across key technical areas including engineering design, constructability, environment and planning, stakeholder engagement, land access and operations were established to provide input into the multi-criteria analysis process, joined with key stakeholders from Logan Water Alliance, Logan City Council road groups and Economic Development Queensland. The process determined that Alignment 5 remained the preferred route with the least potential ecological impacts.

IPS site selection

Multiple multi-criteria analyses were conducted to identify suitable sites for the IPS. The location of the IPS is directly dependent on the WIP alignment and IPS reference design.

Initially, 16 land parcel lots were considered for the MCA with the following criteria:

- Hydraulic suitability
- Regulated vegetation
- MSES vegetation and habitat
- MSES wildlife habitat
- MSES wetland values
- MSES conservation areas
- Protected plants as per *Nature Conservation Act 1992*
- Waterway barrier works
- Approvals complexity

In early 2025, a desktop review of the Commonwealth and Queensland government ecological databases and vegetation mapping was conducted to identify potential ecological constraints, including conservation significant flora and fauna species, which may occur within the lots. Following the desktop investigation, the potential IPS sites were prioritised according to their least constrained environmental values, utilising both quantitative and qualitative data sourced from various databases, maps, and documents, generating a shortlist of six potential sites. Following a subsequent multi-criteria assessment, two potential locations for the IPS (Option 1 and Option 2) have been selected and are subject to ongoing investigations and landowner negotiations.

Alternate activity not possible

The Proposed Action is based on the reference design as developed to date, achieving the intent of providing the level of service required for water supply to SEQ. An alternative activity is not possible to achieve these objectives.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	App. 01 - Fig. 03 No-go, ltd clearing & rehab. areas.pdf Plan of areas of avoidance (no-go), limited clearing and rehabilitation	30/07/2025	No	High
#2.	Document	Appendix 01 - Figure 01 Location and Project Area Plan.pdf Location and project area plan	30/07/2025	No	High
#3.	Document	Appendix 01 - Figure 02 Detailed Project Area.pdf Detailed plan of the Project Area	30/07/2025	No	High
#4.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	30/07/2025	No	High
#5.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	30/07/2025	No	High
#6.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	30/07/2025	No	High
#7.	Document	Wyaralong WTP_Referral Report_20250731.pdf Full EPBC referral report	31/07/2025	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Wyaralong WTP_Referral Report_20250731.pdf Full EPBC referral report	30/07/2025		High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 03 - Summary of Stakeholder Engagement.pdf Summary of Stakeholder Engagement	30/07/2025	No	High
#2.	Document	Appendix 04 - Engagement in Project Lifecycle.pdf Summary of engagement to be undertaken	06/08/2025	No	High
#3.	Document	Appendix 07 - Aboriginal Party Boundaries.pdf Aboriginal Party Boundaries	29/07/2025	No	High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation’s environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 05 - Environmental and Sustainability Policy Statement.pdf Seqwater Environmental and Sustainability Policy	27/03/2025		High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 06 - EAR_Part 1.pdf Ecological assessment report - part 1	30/07/2025	No	High
#2.	Document	Appendix 06 - EAR_Part 2.pdf Ecological assessment report - part 2	30/07/2025	No	High
#3.	Document	Appendix 06 - EAR_Part 3.pdf Ecological assessment report - part 3	30/07/2025	No	High
#4.	Document	Appendix 06 - EAR_Part 4.pdf Ecological assessment report - part 4	30/07/2025	No	High
#5.	Document	Appendix 06 - EAR_Part 5.pdf Ecological assessment report - part 5	30/07/2025	No	High
#6.	Document	Appendix 06 - EAR_Part 6.pdf Ecological assessment report - part 6	30/07/2025	No	High
#7.	Document	Appendix 06 - EAR_Part 7.pdf Ecological assessment report - part 7	30/07/2025	No	High
#8.	Document	Appendix 06 - EAR_Part 8.pdf Ecological assessment report - part 8	30/07/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 06 - EAR_Part 1.pdf Ecological assessment report - part 1	29/07/2025		High
#2.	Document	Appendix 06 - EAR_Part 2.pdf Ecological assessment report - part 2	29/07/2025	No	High
#3.	Document	Appendix 06 - EAR_Part 3.pdf Ecological assessment report - part 3	29/07/2025		High
#4.	Document	Appendix 06 - EAR_Part 4.pdf Ecological assessment report - part 4	29/07/2025		High
#5.	Document	Appendix 06 - EAR_Part 5.pdf Ecological assessment report - part 5	29/07/2025		High
#6.	Document	Appendix 06 - EAR_Part 6.pdf Ecological assessment report - part 6	29/07/2025		High

#7.	Document	Appendix 06 - EAR_Part 7.pdf Ecological assessment report - part 7	29/07/2025	High
#8.	Document	Appendix 06 - EAR_Part 8.pdf Ecological assessment report - part 8	29/07/2025	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	29/07/2025		High
#2.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	29/07/2025		High
#3.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	29/07/2025		High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 07 - Aboriginal Party Boundaries.pdf Aboriginal Party Boundaries	30/07/2025	No	High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	29/07/2025		High
#2.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	29/07/2025		High
#3.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	29/07/2025		High

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	29/07/2025		High
#2.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	29/07/2025		High

#3.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	29/07/2025		High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	29/07/2025		High
#2.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	29/07/2025		High
#3.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	29/07/2025		High

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	29/07/2025		High
#2.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	29/07/2025		High
#3.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	29/07/2025		High

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Appendix 02 - SIA Part 1.pdf Significant impact assessment - Part 1	29/07/2025		High
#2.	Document	Appendix 02 - SIA Part 2.pdf Sustainability impact assessment - Part 2	29/07/2025		High
#3.	Document	Appendix 02 - SIA Part 3.pdf Sustainability impact assessment - Part 3	29/07/2025		High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	89637090281
Organisation name	SEQUANA PARTNERS PTY LTD
Organisation address	Level 31, 570 Bourke Street, Melbourne VIC 3000
Representative's name	Madeleine Page
Representative's job title	Regional Environment and Planning Lead North and West
Phone	03 8688 7140
Email	eecapprovals@sequana.co
Address	Level 2 93 Edward Street, Brisbane QLD 4000

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ By checking this box, I, **Madeleine Page of SEQUANA PARTNERS PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	75450239876
Organisation name	Queensland Bulk Water Supply authority
Organisation address	Level 8, 117 Brisbane Street, Ipswich QLD 4305
Representative's name	Melanie Gordon

Representative's job title	General Manager Capital Delivery
Phone	(07) 3035 5500
Email	MPGProperty.PlanningandApprovals@seqwater.com.au
Address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Melanie Gordon of Queensland Bulk Water Supply authority**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

ABN/ACN	75450239876
Organisation name	Queensland Bulk Water Supply authority
Organisation address	Level 8, 117 Brisbane Street, Ipswich QLD 4305
Representative's name	David Brown
Representative's job title	Team Lead Planning and Approvals
Phone	07 3035 5500
Email	mpgproperty.planningandapprovals@seqwater.com.au
Address	Level 8, 117 Brisbane Street, Ipswich QLD 4305

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **David Brown of Queensland Bulk Water Supply authority**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *