Paradise Dam Improvement Project

Application Number: **02970** Commencement Date: **26/06/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Paradise Dam Improvement Project

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 *

01/01/2027

1.1.4 Estimated end date *

31/12/2127

1.2 Proposed Action details

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

Sunwater Limited (Sunwater, the proponent) proposes to undertake Primary Dam Works that are required for the Paradise Dam Improvement Project (PDIP), to resolve known deficiencies with the existing Paradise Dam.

The subject of this referral (referred to as Referral 2) is limited to the Primary Dam Works and its associated infrastructure and activities (the proposed Action). This proposed Action is critical to develop a safe, sustainable, whole-of-life solution for Paradise Dam by reducing dam safety risks to an acceptable level in accordance with the Australian and Queensland Government dam safety guidelines.

A second, split referral (referred to as Referral 1) was submitted (28/05/2025) for the proposed concrete batch plant and trial embankment area associated with the PDIP (ref: 2025/10206). Referral 1 details the proposed Action associated with the Concrete Batch Plant and Trial Embankment Area which is not dealt with under this Referral 2 (further details in section 1.2.5).

Proposed Action:

The proposed Action involves the Primary Dam Works and associated activities, including:

- Construction and operation of a replacement dam wall (approximately 90m downstream from the existing structure):

1. Right abutment permanent excavation works and secondary spillway, primary spillway and left abutment
2. Temporary and permanent upstream and downstream fishway
3. Ancillary works:

- Partial demolition and decommissioning of the original dam wall, including:

1. Partial demolition of the existing Dam wall, including left abutment and secondary spillway
2. Decommissioning and removal of the existing fishway
3. Demolition and decommissioning of the intake tower

- Establish construction access:

1. New temporary crossing of the Burnett River to facilitate construction access
2. Realignment of a local road on the left abutment (Kalliwa Road)
3. Widening of the existing access road into site across Allen Creek
4. Permanent access roadway on right abutment

- Spoil disposal (e.g. excavation material and demolished dam wall materials)
- Construction of a new permanent site office
- Post construction removal of non-permanent infrastructure and rehabilitation
- Operation of the new dam at the original approved storage volume of 300,000 megalitres (ML), at a Full Supply Level (FSL) of 67.6m Australian Height Datum (mAHD)

The proposed Action's Disturbance footprint is 53.3 hectare (ha) wholly located inside the 207.1ha PDIP area (shown in Attachment 01 – Figure 1). The relevant land tenures are described in section 2.2.5 of this referral (refer to Attachment 01–Figure 1).

A memorandum (Attachment 03) provides an overview of the contents of this referral.

Proposed Action Activities:

The proposed Action incorporates activities associated with site establishment, construction, operation and post-construction rehabilitation phases, which include the following:

- Site establishment – site survey, vegetation clearing, earthworks, and establishment of erosion and sediment control measures

- Construction – mobilisation and delivery of plant, equipment, structures and materials to the Disturbance footprint. Additionally, this phase will include access road works, partial demolition and decommissioning of the existing Dam wall, construction of the replacement Dam wall and associated ancillary works
- Post-construction Rehabilitation – At the completion of construction all plant, equipment, structures and material (not required for operations) will be demobilised from the Disturbance footprint. Underlying areas of the Disturbance footprint that are not required to support operations will be rehabilitated to pre-disturbance conditions. This phase will involve earthworks and is likely to include leveling and contouring, ripping of subsoils, spreading of topsoil, application of a hydro mulch seed mix and/or seedlings using native vegetation, and ongoing monitoring and maintenance to establish vegetation, including weed control
- Operations – involves operation of the new dam at the original approved storage volume of 300,000ML, at a FSL of 67.6mAHD and fishway, including monitoring and maintenance.

Direct and Indirect Impacts:

The proposed Action is within a brownfield, existing disturbed area, although some direct and indirect impacts are expected, including to regrowth vegetation communities and habitat for threatened flora and fauna (Epic Environmental 2025). Sunwater has prioritised the use of all pre-cleared disturbed areas to reduce potential impacts.

Following the implementation of mitigation measures, significant impacts to most of the identified Matters of National Environmental Significance (MNES) flora and fauna species are considered unlikely in accordance with the MNES Guideline, with the exception of Koala and Subtropical eucalypt floodplain woodland Threatened Ecological Community (TEC) (Attachment 04, Section 5.1, Pages 50-53). For further information refer on the direct impacts refer to Section 4.1.4 of this referral.

PDIP Overview:

Paradise Dam (referred to as the Dam, formerly referred to as Burnett River Dam) is located on the Burnett River at an Adopted Middle Thread Distance of 131.4 kilometres (km). The street address for the Dam is 1671 Paradise Dam Road, Coringa, approximately 20km northwest of Biggenden and 80km southwest of Bundaberg, Queensland (Attachment 01–Figure 2).

The original Dam was designed and built, under separate *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (EPBC 2001/422) and State approvals, between 2003 and 2005 to provide water supply to the Wide Bay Burnett region. At the same time, limited upgrades to the distribution network were undertaken to facilitate the supply of water for irrigation purposes. The Dam was constructed to provide a reliable source of water to support growth in the agriculture sector, attract new industry and meet future urban growth needs.

The Dam has an approved impoundment area of 2,951ha, and storage volume of 300,000ML, at a FSL of 67.6mAHD. The Dam is a key component of the Bundaberg Water Supply Scheme (Attachment 01–Figure 3) and is owned and operated by Burnett Water Pty Ltd, a subsidiary of Sunwater.

Following a series of flooding events in 2010, 2011 and 2013, extensive and unexpected scour damage occurred to the riverbed immediately downstream of the primary spillway apron, resulting in damage to the apron, and potential for further scour and undercutting of the dam. Despite emergency dam repair works and subsequent improvement works, it was identified that further works were needed to ensure the dam could continue to hold and safely pass excess volumes of water during periods of extreme rainfall, and to satisfy design standards. For these reasons, Sunwater undertook works to lower the primary spillway by 5.8m ahead of the 2019/20 wet season.

In December 2021, the Queensland Government announced the preferred option for the long-term future of the existing Dam was to return it to its original FSL, as part of dam safety improvement works. Since then, Sunwater has progressed investigations into the feasibility of repairing the existing Dam wall structure. This

continued throughout 2022 and 2023 with a program of intensive testing undertaken to inform design development and identified three unexpected new issues regarding the long-term strength and quality of the existing Dam's concrete:

- Swelling clay: Due to the porous nature of the concrete, low cement content, and high clay content, moisture in the wall caused repeated swelling and contracting
- Cement leaching: Porous concrete caused key ingredients that bond the cement to leach out of the concrete, leading to deterioration and strength loss
- Carbonation: The mix of carbon dioxide, moisture, and cement resulted in low pH, increasing the negative effects from swelling clay and lowering the concrete's strength

The results confirmed the existing structure was a compromised asset, and in January 2024, the Queensland Government announced Sunwater would begin planning for a new dam wall.

Proposed Action Exclusions:

Several PDIP components are excluded from this proposed Action as they have been addressed via a self-assessment process and/or via a separate EPBC Act referral (refer to section 1.2.5). PDIP components excluded from Referral 2 include:

- TPAV – this activity will be undertaken on cleared land previously used as an orchard farm and grazing cattle that has been field verified to not contain any MNES. Construction, operation and decommissioning of the TPAV will not have an impact on MNES and consequently has been assessed as not requiring assessment under the EPBC Act
- Site investigations, including geotechnical investigations and other enabling activities where areas do not contain MNES and/or no impacts to MNES occur
- Development and use of areas that do not contain or impact on MNES for laydowns and other ancillary construction activities, spoil location, infrastructure or works, including for example hardstand pads, erosion and sediment controls, site offices and amenities. Construction, operation and decommissioning will not impact MNES and consequently have been assessed as not triggering assessment under the EPBC Act. Demolition and relocation of existing assets/services and/or the installation of new assets, services and infrastructure located within existing operational areas that do not contain and will not impact on MNES
- Concrete batch plants and trial embankment area, these works form the subject of Referral 1
- Decommissioning of the new dam – The design life of the new dam is 100 years and planning for end-of-life asset decommissioning has not been considered at this time. Impacts associated with decommissioning the new dam or future upgrades to extend the design life, will be evaluated as part of a future approval process

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

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

No

1.2.4 Related referral(s)

EPBC Number	Project Title
2025/10206	Concrete Batch Plant and Trial Embankment Area for the Paradise Dam Improvement Project

1.2.5 Provide information about the staged development (or relevant larger project).

The PDIP (larger project) involves the construction of a replacement dam wall immediately downstream (90m) of the existing Dam wall, followed by the partial demolition of the existing Dam wall. PDIP will return the Dam inundation area to its original approved FSL of 67.6 mAHD and will ensure a safe and secure water supply for the Wide Bay Burnett and Bundaberg regions (refer to Attachment 03 – Memorandum Summary for more information on the larger project). A number of components are required to facilitate PDIP, including:

- Concrete batch plants and trial embankment area (Referral 1)
- Temporary Project Accommodation Village (TPAV)
- Laydowns
- Primary Dam Works (subject of this referral)
- Construction staging areas (subject of this referral)
- Road realignments (subject of this referral)
- Other ancillary activities (haul roads, powerline realignment etc) (subject of this referral)

EPBC Act Referral 1 (2025/10206):

Referral 1 was limited to activities associated with the concrete batch plant and trial embankment area (the proposed Action in Referral 1). The Referral 1 proposed Action is critical to prepare for and inform the Primary Dam Works associated with the PDIP. The timely commencement of this proposed Action is critical to the success of the PDIP.

The Referral 1 proposed Action would take place within a 21.51 ha Disturbance footprint which overlays Lot 3 on SP158186 (Freehold) and one local road, being Paradise Dam Road (Road Reserve). The Referral 1 Disturbance footprint is wholly located inside the 207.1 ha PDIP area, refer Attachment 01 – Figure 1.

As part of the Referral 1 proposed Action, it is planned to construct and commission one Roller Compacted Concrete (RCC) batch plant and one Conventionally Vibrated Concrete (CVC) batch plant. These batch plants are required to maintain a safe and efficient program of construction that fulfils the specified quality requirements for the PDIP. Locating these batch plants proximate to the proposed location of the future replacement dam wall is necessary to undertake engineering performance and monitoring of the construction method for the trial RCC embankment to inform the construction methodology.

Once the batch plants have been commissioned, the trial embankment will be constructed (within the Disturbance footprint) using the produced concrete to test the continuous RCC placement process under site conditions and to test the trial structure to confirm that it has met the required strength and stability targets. Other ancillary activities that will occur as part of this proposed Action within the Disturbance footprint include material and aggregate storage, material screening areas, access roads, site offices and amenities and power generators.

The splitting of Referral 1 from Referral 2 was necessitated by the requirement for timely commencement (approximately Quarter 2, 2026) of these early works to inform the design and construction of the Primary Dam Works (which are the subject of this EPBC Act referral, Referral 2).

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

The proposed Action requires approvals at both the Commonwealth and State levels. The legislative triggers and relevancy of approvals to the proposed Action are detailed in the Approvals Register (Attachment 02) and summarised below.

Commonwealth:

The original Dam, was constructed under, a Controlled Action EPBC approval (EPBC 2001/422) granted by the Commonwealth Government on 25 January 2002. This approval authorised construction of Paradise Dam to proceed based on agreed management/mitigation measures with respect to listed threatened species and communities and listed migratory species known to occur within the impact area. The approval has subsequently been varied on several occasions (including to reflect the lowered spillway) and remains in effect.

In consultation with DCCEEW, it was determined that PDIP will require new EPBC Act referrals where impacts to MNES are likely.

If the Minister determines that the proposed Action is a Controlled Action, a bilateral assessment process may be utilised, at the Minister's election. The bilateral assessment process would allow for the assessment of impacts on MNES to be undertaken as part of the State Impact Assessment Report (IAR) process under the *State Development and Public Works Organisation Act 1971* (SDPWO Act), with input from DCCEEW throughout. DCCEEW would then decide the Controlled Action application and, if approved, issue a separate approval for the PDIP, with the required conditions to mitigate any impacts to MNES. Note, Referral 1 (2025/10206) has not been requested to be assessed under the bilateral agreement.

State:

An existing State Community Infrastructure Designation (CID) and Environmental Impact Statement (EIS) Coordinator-General's Assessment Report remain current for the Dam. The CID applies to those parts of the land required to construct and operate the Dam (then Burnett River Dam) with a capacity of up to 300,000 ML on the lower Burnett River, consisting of the bed and banks of the Burnett River and its tributaries.

Proposed State Approval Pathway:

Sunwater will submit an Initial Advice Statement (IAS) to the Coordinator-General seeking a Coordinated Project declaration for the PDIP under the SDPWO Act. The IAS will seek the proposed Coordinated Project to be assessed through the Impact Assessment Report (IAR) process under the SDPWO Act.

The IAR process is considered a streamlined and fit for purpose assessment process for well-defined and low-medium risk projects.

Beyond the SDPWO Act, approval under the following Acts are likely to be required, subject to a works regulation being made under section 109 of the SDPWO Act (which will provide an alternative approval pathway under certain Acts) or other exemptions applying (Attachment 02):

- *Planning Act 2016*
- *Environmental Protection Act 1994*
- *Nature Conservation Act 1992*
- *Environmental Offsets Act 2014*
- *Fisheries Act 1994*
- *Transport Infrastructure Act 1994*
- *Land Act 1994*
- *Local Government Act 2009*
- *Regional Planning Interests Act 2014*
- *Vegetation Management Act 1999*
- *Water Act 2000*
- *Water Supply (Safety and Reliability) Act 2008*

- *Work Health and Safety Act 2011*

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. *

Sunwater has been undertaking consultation and engaging with the community regarding the PDIP since 2022, and with respect to the new dam wall since 2024. A summary of consultation undertaken to date, in addition to future planned consultation activities is provided below.

Preliminary Engagement:

Sunwater has undertaken preliminary stakeholder communication and engagement since 11 January 2024 (date the Queensland Government announced planning had begun to build a new dam wall). Stakeholders consulted included:

- Paradise Dam Reference Group (PDRG) (includes representatives from local government, peak bodies, customers, Traditional Owners and downstream residents)
- Near neighbours
- Local community and residents
- Broader community
- First Nations Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda and Wakka Wakka People
- Environment groups (Wide Bay Burnett Environmental Council, Burnett Catchment Care Association, Gladstone Conservation Council, and Queensland Conservation Council)
- Commonwealth Department of Climate Change, Energy, the Environment and Water (via pre-referral meetings)
- Queensland Government Department of State Development, Infrastructure and Planning
- Queensland Government Department of Environment, Tourism, Science and Innovation
- Queensland Government Department of Primary Industries (Fisheries Queensland, Rural Economic Development)
- Queensland Government Department of Transport and Main Roads
- Queensland Government Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development
- Queensland Government Department of Local Government, Water and Volunteers (Major Infrastructure Projects)
- North Burnett Regional Council
- Bundaberg Regional Council

Consultation with stakeholders consisted of a variety of engagement methods and tools, including:

- Briefing meetings, general meetings, and update meetings
- Specific/targeted meetings with residents and landowners
- Online meetings and updates
- Provision of a PDIP update during the First Nations Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda community roadshow in Bundaberg
- Development of videos regarding the new dam wall announcement and the concrete issues (published on the Sunwater website and the Paradise Dam Facebook Page)
- Information stall and drop-in sessions at five different locations (Lions Park North Bundaberg, Pioneer Park Childers, Gin Gin Community Markets, Bundaberg Community Markets, and Beiers Park Biggenden)
- Social media posts
- Development and publication of brochure on Sunwater website outlining key project phases, including state environmental approvals
- Community drop-in sessions to discuss road upgrades and to provide other updates
- Information stall at Agrotrend, Bundaberg Recreational Precinct

First Nations Consultation:

Sunwater has been formally engaging with the First Nations Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda People Aboriginal Corporation Registered Native Title Bodies Corporate (RNTBC) as the Prescribed Body Corporate representing the rights and interests of the BGGGTB People since a shared Memorandum of Understanding was entered into in late 2023. An Indigenous Land Use Agreement is currently being negotiated for PDIP.

Sunwater has also been formally engaging with the Wakka Wakka Native Title Aboriginal Corporation (WWNTAC) RNTBC as the Prescribed Body Corporate representing the rights and interests of the Wakka Wakka People) to develop a shared benefits agreement for the PDIP since early 2023.

Sunwater continues to engage regularly and shared an update on the PDIP and the approvals processes at the meeting with WWNTAC on 10 April 2025 and BGGGTB on 19 December 2024.

Preliminary Stakeholder Feedback and Sentiment:

The completed communications, briefings and community information sessions enabled Sunwater to share information and receive questions and feedback from a wide range of stakeholders. State government agencies have provided general feedback on their requirements and processes which has been considered as part of the requisite approval pathways.

The Paradise Dam Reference Group (PDRG) is the key engagement forum to facilitate the exchange of information and ideas between key stakeholders and Sunwater for the PDIP. The majority of individuals representing stakeholders on the PDRG have a long history of involvement with Paradise Dam. Customers, grower groups and local councils are all long-term advocates of Paradise Dam being safely returned to its original FSL. Sunwater is committed to ongoing PDRG engagement and continues to provide updates on timing of the approval processes as they progress.

Additionally, Sunwater has continued to engage directly with residents located proximate to the PDIP to identify and manage anticipated impacts. This has included the early planting of a trees to screen the proposed TPAV which shares a boundary with the nearest neighbours to the PDIP.

Consultation Moving Forward:

Consultation will be ongoing with stakeholders as the PDIP progresses through the various approval processes, and as any new matters may arise, with both statutory and non-statutory consultation undertaken to ensure appropriate, timely, and open communication.

1.3.1 Identity: Referring party

Privacy Notice:

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.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	54169579275
Organisation name	EPIC ENVIRONMENTAL PTY LTD
Organisation address	Level 17, 95 North Quay, Brisbane, QLD 4000

Referring party details

Name	Romin Nejad
Job title	General Manager
Phone	0403116766
Email	rnejad@epicenvironmental.com.au
Address	L17, 95 North Quay, Brisbane

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	17020276523
Organisation name	Sunwater Limited
Organisation address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006

Person proposing to take the action details

Name	Mal Shepherd
Job title	Chief Development Officer
Phone	07 3120 0232
Email	mal.shepherd@sunwater.com.au
Address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006

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. *

Sunwater has a strong history of responsible environmental management.

There are no current proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against Sunwater, or any of its executives.

In 2008, the Wide Bay Burnett Conservation Council Inc initiated proceedings in the Federal Court against Burnett Water Pty Ltd, a wholly owned subsidiary of Sunwater, alleging that it had breached condition 3 of the EPBC Act approval in relation to the operation of the fishway. Judgment in favour of Burnett Water Pty Ltd was handed down on 4 March 2011 (*Wide Bay Conservation Council Inc v Burnett Water Pty Ltd* (2011) 192 FCR 1; (2011) 277 ALR 462; [2011] FCA 175).

Prior to the judgment, in 2007, an audit conducted by the then Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC) found Burnett Water Pty Ltd's operation of Paradise Dam to be partially non-compliant against a condition of approval under the EPBC Act. Following the handing down of the judgment, SEWPaC issued an addendum to the Final Compliance Audit Report. The addendum refers to the judgment and the finding that periods of non-operation of the fishway did not constitute a breach of the EPBC Act approval.

On 18 September 2023, Sunwater received notice that the DCCEEW had found that Burnett Water Pty Ltd was non-compliant with condition 1 of the EPBC Act approval for Paradise Dam. In response to this matter and to close out the contravention, DCCEEW on 16 January 2024 varied the conditions of approval under section 143 of the EPBC Act. New condition 1 requires Burnett Water Pty Ltd to compensate for the impacts of the action to the Black-breasted Button Quail by legally securing (by way of dedication as a conservation park under the Queensland *Nature Conservation Act 1992* or another mechanism agreed to in writing by the Minister) the Mount Blandy offset area. It should be noted that Mount Blandy had previously been dedicated as a Conservation Park in July 2016 under the *Nature Conservation (Protected Areas) Regulation 1994* (Qld) at the behest of Sunwater. The proposed Action will not have a direct or indirect impact on the
Black-breasted Button Quail (refer Attachment 04 – Section 6.5.1).

Sunwater is a water service provider, making the most of available water supply for agriculture, urban and industrial customers. Sunwater operates 365 days a year to deliver for its customers and understands the essential role its customers play in regional growth and prosperity.

Currently, Sunwater has 19 dams and 1,951 km of pipeline which store, capture and deliver around 40 percent of the water used commercially in Queensland to over 5,000 customers. Sunwater is known as the specialist that industry, mining and government turn to when they need the right solution for:

- Designing, developing, managing and operating bulk water infrastructure
- Conducting environmental impact studies
- Finding new ways to deliver water to remote locations

Sunwater prides itself on its values which guide everything it does and how it does it. Sunwater's values are set out below:

- Value people – everyone matters and we are committed to zero harm for all our people
- Work together – we are our best when we work together as one Sunwater and with our customers front of mind
- Take responsibility – we all have a part to play to deliver on our promises and challenge our thinking

Sunwater, as a responsible entity and in accordance with its Environmental Policy (Attachment 05), actively seeks to minimise the potential for adverse impacts from its activities on the environment, identifies ways of improving its environmental performance, and fulfills all environmental compliance obligations.

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

Sunwater's Environmental Policy (Attachment 05) is a roadmap for the future direction of Sunwater as an environmentally aware organisation. In conjunction with the staff code of conduct and corporate objectives, the Environmental Policy guides business operations in the way Sunwater meets its statutory obligations, its own corporate goals and its progress on sustainable practices.

Sunwater believes that everyone is responsible for the environment which surrounds us and of which they're a part of. Sunwater believes all employees are responsible for environmental protection. In addition, Sunwater ensures its operations contribute to a sustainable environment through the following three values (set out below):

We Value People:

- Providing ongoing environmental awareness training and support for employees
- Maintaining effective communication with our employees and other stakeholders, such as customers and visitors to our recreation areas, to ensure all environmental management practices are followed

We Work Together:

- Continuously improving our environmental management by setting measurable goals, monitoring, reporting and reviewing the effectiveness of the management system
- Actively engaging with natural resource management groups and government agencies to achieve good environmental outcomes by preventing pollution or serious environmental harm

We Take Responsibility:

- Minimising the potential for adverse impacts from our activities on the environment and requiring our contractors to do the same
- Seeking to identify other ways of improving our environmental performance e.g. through innovation and application of new methods
- Setting achievable environmental targets and reporting against these
- Reporting and investigating environmental incidents
- Fulfilling Sunwater's environmental compliance obligations

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? *

Yes

Proposed designated proponent organisation details

ABN/ACN	17020276523
Organisation name	Sunwater Limited
Organisation address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006

Proposed designated proponent details

Name	Mal Shepherd
Job title	Chief Development Officer
Phone	07 3120 0232
Email	mal.shepherd@sunwater.com.au
Address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006

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	54169579275
Organisation name	EPIC ENVIRONMENTAL PTY LTD
Organisation address	Level 17, 95 North Quay, Brisbane, QLD 4000
Representative's name	Romin Nejad
Representative's job title	General Manager
Phone	0403116766
Email	rnejad@epicenvironmental.com.au
Address	L17, 95 North Quay, Brisbane

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	17020276523
Organisation name	Sunwater Limited
Organisation address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006
Representative's name	Mal Shepherd
Representative's job title	Chief Development Officer
Phone	07 3120 0232
Email	mal.shepherd@sunwater.com.au
Address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006

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.

Same as Person proposing to take the action information.

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

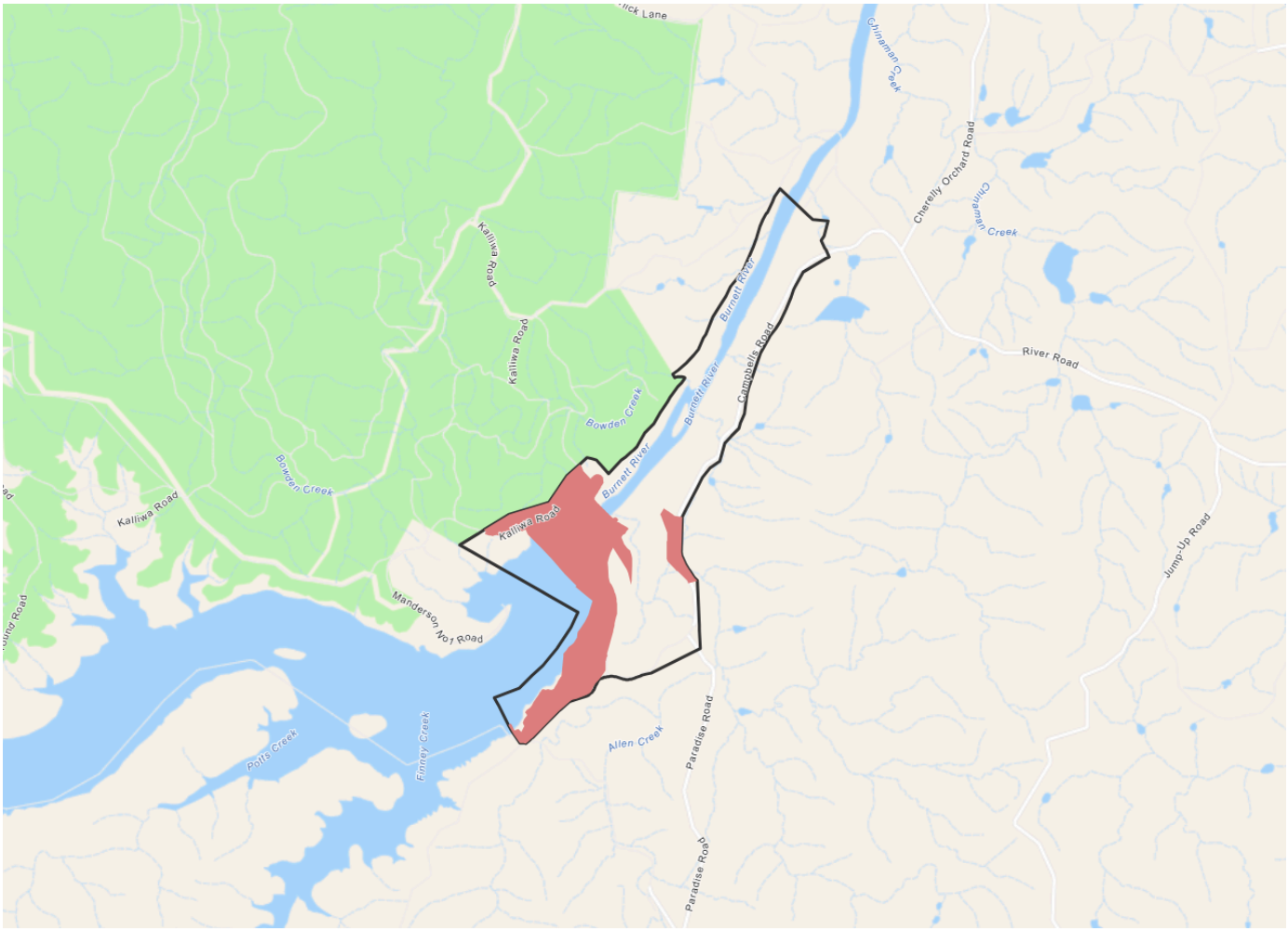
1.4 Payment details: Payment allocation

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

Referring party

2. Location

2.1 Project footprint



Project Area: 207.61 Ha **Disturbance Footprint:** 53.41 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

1671 Paradise Dam Road, Coringa, Queensland 4621

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? *

The proposed Action's Disturbance footprint intersects the following (Attachment 01 – Figure 1):

- Lot 2 SP135369 – Term Lease, including Kalliwa Road (Non-Freehold)
- Downstream Apron Area – Watercourse (Non-Freehold)
- Lot 3 SP158186 – Freehold
- Lot 9 CK1566 – Freehold
- Lot 2 SP339382 – Freehold
- Lot 3 CP4471 – Freehold
- Lot 2 CP4471 – Freehold
- Lot 1 CP4471 – Freehold
- Unnamed Roads – Road Reserve (Non-Freehold)
- Paradise Dam Road – Road Reserve (Non-Freehold)

Native Title intersects the Disturbance footprint with overlap on Lot 2 SP135369 and within Allen Creek (which is within the Paradise Dam Road – Road Reserve).

Sunwater acknowledges that Paradise Dam is on the traditional lands of both the BGGGTB and Wakka Wakka Peoples.

3. Existing environment

3.1 Physical description

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

The street address for the proposed Action is 1671 Paradise Dam Road, Coringa, which is approximately 20 km northwest of Biggenden and 80 km southwest of Bundaberg, Queensland.

Local Government Area Zoning:

The proposed Action is located within two local government areas (LGAs), namely, North Burnett Regional Council (NBRC) LGA and Bundaberg Regional Council (BRC) LGA (Attachment 01 – Figure 2).

The *North Burnett Regional Planning Scheme 2014* and *Bundaberg Regional Council Planning Scheme 2015* are the applicable planning schemes. The lots located within the NBRC LGA are zoned as rural. The proposed Action is consistent with the rural zone as it supports the maintenance of water infrastructure for existing and future rural uses and activities and protects and manages a significant natural resource and process (water cycle management). The lots within the BRC LGA are zoned within the community facilities zone. The proposed Action is consistent with the community facilities zone as it involves maintaining a utility installation for community-related uses.

Existing Infrastructure:

Paradise Dam was constructed between 2003 and 2005 to provide water supply to the Wide Bay Burnett and Bundaberg regions. At the same time, limited upgrades to the distribution network were undertaken to facilitate the supply of water for irrigation purposes.

The Dam was constructed to provide a reliable source of water to support growth in the agriculture sector, attract new industry and meet future urban growth needs. The dam impoundment covers an area of 2,951 ha, with an original storage volume of 300,000 ML, at a FSL of 67.6 mAHD.

On the approved (existing) structure, the 315 m wide primary spillway consisted of a RCC core with a reinforced concrete capping to the crest, stepped reinforced concrete downstream face and precast panels to the upstream face. The primary spillway stilling basin is located on a downstream side of the Dam and has an overall length of 20m.

To facilitate fish passage, the existing structure has an operational upstream fish lift system and a separate downstream fish lock system. A small hydroelectric unit was also installed and used during low flow releases to generate electrical energy.

A large portion of the Disturbance footprint has been previously cleared and contains the existing operational dam and associated infrastructure such as operator facilities and buildings, access roads, primary and secondary spillway, intake tower and outlet, buttresses, and apron.

Presently, Burnett Water Pty Ltd (a subsidiary of Sunwater) owns and operates the existing Dam and proposes to continue these operations into the future. The other uses for the Disturbance footprint are geotechnical investigations being undertaken by Sunwater to inform the detailed engineering design of the replacement dam. There are no other known or proposed uses for the proposed PDIP area.

Existing Environment:

Detailed descriptions of the existing environment, for both terrestrial and aquatic matters are described in Attachment 04 – Section 4.1 and Attachment 06 – Section 4.2, respectively. An overview of these descriptions has been provided in this section.

The PDIP is a brownfield site and historically experienced disturbance from vegetation clearing, earthworks and infrastructure during construction of the original dam as well as other land uses such as farming and recreational areas (i.e. campsites). Since commissioning of Paradise Dam, numerous flooding events have contributed to impacts upstream and downstream of the dam wall, as described in section 1.2.1 of this referral.

The predominant surrounding land use is agriculture and occurs within close proximity to the north, east and south of the PDIP area, including cattle grazing and orchards (Attachment 04 – Section 4.1).

The PDIP is located within the Gympie subregion of the greater South-east Queensland bioregion. The Gympie subregion is characterised by low, hilly landscapes on old parent material. Catchment geology consists of predominantly marine volcaniclastic depositions. Local geology in and surrounding the Disturbance footprint comprises alluvium, baramba basalt, the goodnight beds, mingo granite, andesite, rhyolite, granodiorite, gabbro and other metamorphosed sediments (Queensland Government (QG) 2024 in Attachment 04 – Section 4.1).

Patches of Araucarian rainforest and mixed eucalypt forests are found in the Disturbance footprint on intermediate to basic volcanic soils. Ironbark woodlands tend to replace the mixed eucalypt forests where rainfall is below 1,000 millimetres per annum (mm/annum) (Attachment 04 – Section 4.1).

The PDIP is located on the Burnett River within the Burnett catchment. The Burnett River originates at Mount Gaeta in the Great Dividing Range near Monto and flows south to southwest for approximately 100 km before flowing east near Riverleigh and then northeast at Gayndah until it discharges into the Coral Coast near Bundaberg (Attachment 06 – Section 4.1.1). Several watercourses and drainage features intersect the PDIP.

Introduced weed species are present over a large portion of the Disturbance footprint. Pest plant species were found at nearly all vegetation and habitat assessment sites during the 2024 terrestrial ecology survey (Attachment 04 – Section 5.1.4). Of the 78 non-native flora species identified during the 2024 survey, four are listed as Category 3 restricted matters under the Queensland *Biosecurity Act 2014*, of these, two are also listed as Weeds of National Significance (WoNS), being Lantana (*Lantana camara*) and Common Prickly Pear (*Opuntia stricta*). Lantana in particular, was common throughout the Disturbance footprint and was dense along the edge of roads and access tracks and near waterways (Attachment 04 – Section 5.1.4).

Six species of introduced animal were recorded, either by direct observation or observations of burrows and digging, during the 2024 field survey, being the Cane Toad (*Rhinella marina*), Common Myna (*Acridotheres tristis*), European Brown Hare (*Lepus europaeus*), House Mouse (*Mus musculus*), Pig (*Sus scrofa*), and Rabbit (*Oryctolagus cuniculus*) (Attachment 04 – Section 5.1.4).

Primary Access:

Primary access will be via the existing Paradise Dam Road which is a local road within the NBRC LGA. Internal site access/haulage roads will be used for hauling material and machinery within the PDIP area.

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

The existing and proposed uses for the Project area are essentially the same. The Disturbance footprint (53.3 ha) will encompass the entirety of the proposed Action. A large portion of the Disturbance footprint has been previously cleared and contains the existing area facilitates currently operational of Paradise Dam and includes associated infrastructure such as operator facilities and buildings, access roads, primary and secondary spillway, intake tower and outlet, buttresses, and apron.

The proposed use of the Disturbance footprint Action area will involve:

- Construction of a replacement dam wall (approximately 90 m downstream from the existing structure)
- Partial demolition and decommissioning of the existing Dam wall
- Realignment of a local road on the left abutment (Kalliwa Road) and clearing for access roadway
- Spoil disposal (i.e. excavation material and demolished dam wall materials)
- Right abutment permanent excavation works, permanent access roadway and spillway
- Widening of the existing access road into site across Allens Creek
- Site Post construction rehabilitation
- Operation of the dam at the original approved storage volume of 300,000 ML, at a FSL of 67.6 mAHD
- Other Ancillary works as required

The Project area encompasses 207.1 ha, within which the Disturbance footprint is 53.3 ha.

Presently, Burnett Water Pty Ltd (a subsidiary of Sunwater) owns and operates the existing Paradise Dam and proposes to continue these operations into the future. There are no other known or proposed uses for the proposed Project PDIP area.

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

Good Night Scrub National Park borders to the immediate north and west of the existing Dam and the Disturbance footprint on the northern side of the Burnett River. Good Night Scrub National Park is approximately 7,100 ha in area and includes examples of dry rainforest scrub that would have once covered extensive areas of the Gin Gin and Gayndah districts. Good Night Scrub National Park was declared a National Park in 1998 (Attachment 04 – Section 4.1, Page 21).

The Disturbance footprint will not directly interfere with the Good Night Scrub National Park area. All construction (including vegetation clearing and earthworks) will be confined to the Disturbance footprint which has a maximum proposed disturbance of 53.3 ha and is located wholly within the PDIP area.

The PDIP is located on the Burnett River within the Burnett catchment. The Burnett River originates at Mount Gaeta in the Great Dividing Range near Monto and flows south to southwest for approximately 100 km before flowing east near Riverleigh and then northeast at Gayndah until it discharges into the Coral Coast near Bundaberg (Attachment 06, Section 4.1.1, Page 64). Within the PDIP area the Burnett River, is known for its natural landscapes, providing land for both ecological habitat and agricultural purposes. Therefore, the Burnett River’s health is vital for sustaining the local ecosystem and supporting agriculture in the surrounding areas. Additionally, the Burnett River holds cultural significance for the Indigenous communities in the region, who have historical ties to the land and its resources.

No other outstanding natural features and/or other important or unique values have been identified in the Disturbance footprint.

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

Within the Disturbance footprint the overall elevation ranges from 31 mAHD to 111 mAHD.

The Disturbance footprint on the left embankment (northwest of the existing Dam wall) is generally sloped in an easterly direction from the top of the embankment (111 m AHD) to the downstream side of the existing Dam wall (31 m AHD). This embankment is characterised by steep slopes of approximately 22%.

The Disturbance footprint on the upstream right embankment (on the southern upstream side of the existing Dam wall) is generally sloped west into the Paradise Dam impoundment area. The high side elevation of the embankment is up to 90 m AHD and the water level is at approximately 61 m AHD, with an approximate slope of 11%.

The Disturbance footprint on the downstream right embankment (on the southern downstream side of the existing Dam wall) is generally sloped west into the Burnett River. The high side elevation of the embankment is up to 74 m AHD and the water level is at approximately 31 m AHD. This embankment is characterised by steep slopes of approximately 20%.

The Disturbance footprint on and around Allen Creek (and its tributaries) has elevations that range between 63 m AHD and 46 m AHD. This area is sloped in westerly direction towards Allen Creek (and its tributaries). This embankment is characterised by moderate slopes of approximately 10%.

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.

Terrestrial Ecology:

The terrestrial MNES assessment for the proposed Action initially consisted of a desktop review of publicly available ecological data sources (including DCCEEW's Protected Matters Search Tool (PMST)) and survey data related to terrestrial species from field surveys previously undertaken by Epic Environmental (Epic) in 2019, 2020, 2022 and 2023. The desktop review was then followed by a post-wet season (spring) flora and fauna field survey from 5-10 November 2024 to further describe the potential MNES values present within the PDIP area and Disturbance footprint.

The Terrestrial MNES Assessment Report can be viewed in Attachment 04 and is summarised below.

Terrestrial Flora:

The PMST report identified 13 threatened (MNES) flora species as potentially present within the PDIP area. Eleven MNES flora species were identified as previously recorded in the wider area (within 25 km of the PDIP area) from the Wildnet database search. This includes five species not identified in the PMST report (Attachment 04, Section 4.4, Page 25).

A total of four flora surveys have been completed, with the following number of flora species identified (Attachment 04, Section 4.4, Page 25):

- 2019/2020 and 2022 survey: 220 flora species, including 59 non-native species
- 2023 survey: 62 flora species were identified during the targeted threatened flora survey, including 16 non-native species
- 2024 survey: 117 flora species were identified, including 31 non-native species

No threatened flora listed under the EPBC Act has been recorded during the surveys undertaken across the Disturbance footprint or surrounds during these assessments. This is despite substantial targeted survey effort, particularly in the vine forest habitat adjacent to the north of the Burnett River which has more potential to support threatened species identified in the desktop review.

State threatened species habitat mapping (essential habitat and protected wildlife habitat) indicated there may be habitat present suitable for *Cycas megacarpa* (listed as endangered under the EPBC Act).

Within the Disturbance footprint, non-remnant vegetation occurs on the banks immediately upstream of the existing Dam wall. The area downstream of the existing Dam wall and the areas of associated infrastructure on the southern side of the existing Dam, are primarily devoid of established vegetation and classified as non-remnant vegetation (Attachment 04 ,Section 4.3.1, Page 22 and Figure 3, Page 14). Areas immediately upstream and downstream of the existing Dam are maintained as operational and prone to flood impacts during over-topping events. Additional areas of non-remnant vegetation are located to the northeast and east of the existing dam wall and maintained as cleared for cattle grazing and rural housing/infrastructure.

One TEC has been identified as present (analogous to two of the Regional Ecosystems (REs) identified as present (RE 12.3.7 and RE 12.3.3)) within the Disturbance footprint, identified as meeting the diagnostic characteristics and biotic thresholds for Subtropical floodplain forest TEC, listed as endangered under the EPBC Act in October 2022 (Attachment 04, Section 4.3.1, Page 22 and Figure 3, Page 14). Confirmed Subtropical floodplain forest is restricted to Allen Creek where canopy cover and native understorey perennial cover is greater. The TEC is well defined and directly adjacent the existing Dam.

No other TECs were identified within the Disturbance footprint.

Terrestrial Fauna:

27 threatened (MNES) fauna species were identified as potentially present in the PMST report (Attachment 04, Section 4.5.2, Page 37 and Table 6). Eight of the species identified have been previously recorded in the wider area from the Wildnet database search. Threatened species habitat mapping (essential habitat and protected wildlife habitat) indicates there is habitat present suitable for Koala and Greater Glider.

The fauna surveys carried out in December 2019 recorded 100 terrestrial fauna species, comprising of 10 mammal, 78 bird, 9 reptile and 3 frog species. The 2022 fauna survey identified 80 terrestrial fauna species, including six introduced species and one terrestrial MNES fauna species, Grey-headed Flying-fox (*Pteropus poliocephalus*) listed as vulnerable under the EPBC Act. The 2023 survey recorded 55 fauna species (Attachment 04, Section 4.5, Page 31).

During the most recent survey in 2024, a total of 99 fauna species, including six non-native species, were identified within the Disturbance footprint. A complete list of fauna species recorded during the survey is provided in Attachment 04 – Appendix E. No threatened fauna species were recorded within the Disturbance footprint during the 2024 survey.

Migratory Species:

Eleven fauna species listed as Migratory were identified as potentially present in the PMST report. Five of these are also listed as threatened species (Attachment 04 – Table 6). Two species have been previously recorded in the wider area from the Wildnet database search. Four migratory species have been recorded within or near the PDIP area across all surveys: Caspian Tern (*Hydroprogne caspia*), Greater Crested Tern (*Thalasseus bergii*), Osprey (*Pandion haliaetus*) and Rufous Fantail (*Rhipidura rufifrons*). No migratory species were recorded across the Disturbance footprint during the 2024 survey (Attachment 04, Section 4.6, Page 47).

Aquatic Ecology:

Hydrobiology completed a preliminary assessment to describe the existing aquatic ecological values relevant to MNES. For the purpose of the aquatic ecology assessment a Study Area was defined. The Study Area encompasses the Burnett River and major tributary streams from approximately 10 km downstream of Gayndah to a point 40 km downstream of the Dam wall near Wallaville, including the Paradise Dam reservoir. This assessment can be viewed in the Preliminary Aquatic Ecology Impact and Mitigation Assessment Report in Attachment 06 and is summarised below.

To inform the Preliminary Aquatic Ecology Impact and Mitigation Assessment Report, Hydrobiology completed a desktop assessment (literature review and gap analysis) of the aquatic ecosystem values and previous field survey results to confirm desktop findings and fill gaps. Two field surveys were then undertaken in 2024, with the first survey occurring from 12-16 November 2024 and the second from 3-6 December 2024. The first survey was terminated early due to heavy rainfall that had caused flooding and dangerous conditions downstream of the existing Dam wall. Importantly, the areas surveyed are within the bounds of the Disturbance footprint of the proposed Action. (Attachment 06, Section 3.5, Page 62)

Aquatic Flora:

No threatened aquatic flora listed under the EPBC Act occur within the Disturbance footprint (Attachment 06, Section 4.1.7.1, Page 79).

Aquatic Fauna:

The Australian Lungfish (*Neoceratodus forsteri*), listed as vulnerable under the EPBC Act, has been recorded in the Study area (Attachment 06, Section 4.1.7.2, Page 80), with records from both upstream and downstream reaches, as well as beyond. Habitat mapping identified 7.50 km2 of potential foraging habitat and 0.89 km2 of potential spawning habitat within the Study area (Attachment 06, Section 4.2.2, Page 114)).

The White-throated snapping turtle (*Elseya albagula*) is listed as critically endangered under the EPBC Act and has been recorded, with individuals sparsely distributed throughout the Study area and in upstream areas and tributaries, particularly Barambah Creek. Within the Study area, habitat mapping identified 7.74 km2 of potential foraging habitat, 0.38 km2 of potential nesting habitat and 0.33 km2 of known nesting habitat (Attachment 06, Section 4.2.2, Page 115).

The salt-water crocodile (Crocodylus porosus) is listed as migratory under the EPBC Act and is known to inhabit the wider Mary-Burnett Basin, though there are no records of its presence within the Study area (Attachment 06, Section 4.1.7.4, Page 99).

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

The proposed Action is located within the Gympie subregion of the greater South-east Queensland bioregion. The Gympie subregion is characterised by low, hilly landscapes on old parent material. Catchment geology consists of predominantly marine volcaniclastic depositions. Local geology in and surrounding the Disturbance footprint area comprises alluvium, baramba basalt, the goodnight beds, mingo granite, andesite, rhyolite, granodiorite, gabbro and other metamorphosed sediments (Attachment 04, Section 4.1, Page 21).

The Disturbance footprint soils are likely to be intermediate to basic volcanic soils given this is where Araucarian rainforest and mixed eucalypt forests are typically found (Attachment 04, Section 4.1 Page 21).

Terrestrial Vegetation:

Field surveys (2019, 2020, 2022, 2023 and 2024) of the Disturbance footprint confirmed the presence of vegetation analogous to five REs present within the PDIP area. These REs occur as remnant and/or regrowth vegetation communities, refer Attachment 04, Section 4.3.1,– Table 4 and Figure 3. Of the five RE's:

- One has an endangered status under the *Vegetation Management Act 1999* (VM Act), (RE 12.3.3)
- One has an Of Concern status under the VM Act (RE 12.11.12)
- Three are listed as Least Concern under the VM Act (RE 12.3.7, RE 12.11.6 and RE 12.3.7b)

No threatened flora species listed under the EPBC Act were identified within the Disturbance footprint during field surveys (Attachment 04, Section 4.4, Page25).

As identified in section 3.2.1 of this referral, two of the REs identified as present (RE 12.3.7 and RE 12.3.3) in the Disturbance footprint meet the diagnostic characteristics and biotic thresholds for Subtropical floodplain forest TEC, listed as endangered under the EPBC Act. Confirmed Subtropical floodplain forest TEC is restricted to Allen Creek where canopy cover and native understorey perennial cover is greater (Attachment 04, Section 4.3.2, Page 23).

There is 1.35 ha of moderate condition vegetation and REs analogous with Class C2 Subtropical floodplain forest TEC ground-truthed as occurring within the Disturbance footprint, along Allen Creek, comprising 0.95 ha of RE 12.3.3 (remnant) and 0.404 ha of RE 12.3.7 (remnant) (Attachment 04, Table 4, Page 22).

Aquatic / Riparian Vegetation:

A detailed assessment of aquatic habitat is included in Attachment 06, Section 4.1.6, Pages 76 to 79, comprising an assessment of upstream of the existing Dam, within the impoundment, and downstream of the existing Dam. Both upstream and downstream sections contained riparian vegetation that was mostly continuous and in good condition, although areas of low coverage (cleared of mature trees) were present in some areas. Within the impoundment, some patches of submerged and floating vegetation were present around the edges and tended to be growing in higher densities in the shallow bays branching off from the main channel, although overall coverage was relatively low. The riparian zone of the impoundment was highly disturbed by surrounding land use that had interrupted the coverage and continuity of riparian vegetation. Despite this, overall, the banks remained well vegetated.

Riparian vegetation upstream and downstream of the existing Dam contained a variety of native trees, namely gums (*Eucalyptus* spp.), tea tree (*Melaleuca* spp.) and bottlebrushes (*Callistemon* spp.) and provided coverage and an overstorey on the upper banks and provided overhanging fringing vegetation on the lower banks. While the understorey on the upper banks was dominated by grasses, a variety of emergent macrophyte species of herbs, rushes and sedges were growing in the understorey of the lower banks, providing trailing bank vegetation and in-stream habitat around the edges.

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.

A search of the Commonwealth heritage register did not identify any Commonwealth heritage places within the Disturbance footprint.

Noting the importance of historic heritage however, Sunwater conducted a number of register searches for the PDIP area which identified the following:

- World heritage register – there are no world heritage places
- Commonwealth heritage register – (as above) there are no Commonwealth heritage places
- National heritage list – there are no national heritage places
- Queensland heritage register – the closest registered place is Deep Creek Railway Bridge, Chowey (ID: 600031), located approximately 12 km south of the PDIP area
- NBRC local heritage register – Firstly, Paradise Cemetery (Lot 71CK540) located alongside Paradise Dam Road and outside but adjacent to the PDIP area. This cemetery is understood to be connected with the existence of the Paradise gold mining settlement (circa 1890s). Secondly, Deep Creek Railway Bridge, Chowey is located approximately 12 km south of the PDIP area
- BRC local heritage register – there are no BRC registered local heritage places within or near the PDIP area

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

The Disturbance footprint is on the traditional lands of the First Nations Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda People (BGGGTB) (PDIP Burnett River (in-river) and left bank) and Wakka Wakka People (PDIP right bank).

The *Aboriginal Cultural Heritage Act 2003* (ACH Act) sets out provisions that provide for the effective recognition, protection and conservation of Aboriginal cultural heritage. Under the ACH Act a person must take all reasonable and practicable measures to ensure an activity does not harm Aboriginal cultural heritage (the cultural heritage duty of care).

Comprehensive cultural heritage surveys were undertaken in circa 2002 (2002 Survey) (prior to the commencement of the ACH Act) in relation to the original Dam footprint, which included mitigation measures such as relocation and registration of cultural heritage finds. The results of the 2002 Survey informed subsequent Cultural Heritage Management Plans, which were developed with the relevant Traditional Owners at the time when the Dam was constructed.

A contemporary Cultural Heritage Management Agreement was entered into with the BGGGTB RNTBC in December 2024 (2024 CHMP). The 2024 CHMP Area includes the Burnett River (in-river works) and the left bank and governs future PDIP project activities. The 2024 CHMP applies to existing surveyed and mitigated cultural heritage areas undertaken at the time of original construction and includes procedures to identify, record and protect Aboriginal Cultural heritage within an extended 2024 CHMA area for the in-river investigation and early works for the new dam wall.

Sunwater is continuing to ensure its cultural heritage duty of care obligations are met in the PDIP area south of the Burnett River (including enabling road works and quarry investigations) through ongoing engagement with the Wakka Wakka people. A draft contemporary Cultural Heritage Management Agreement for the dam site works area to the south of the Burnett River has been prepared and is currently being negotiated by the parties.

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. *

Surface water:

The PDIP area intersects Allen Creek, Burnett River and tributary of Bowden Creek (Attachment 04, Section 4.1, Page 21). Direct and indirect impacts to Allen Creek and Bowden Creek are considered negligible as both flow into the Burnett River downstream of the existing Dam wall and therefore only the hydrological characteristics of Burnett River are discussed below.

No hydrological investigations have been undertaken for the purpose of Referral 2. It is noted that the hydrology of the Burnett River is already well understood from previous studies and investigations. The Burnett River is a modified system as a result of the existing Dam and other historical water harvesting. The proposed Action is anticipated to have a negligible impact on existing hydrological processes. The operational requirements for Paradise Dam are specified in the Resource Operations Licence (ROL) for the Bundaberg Water Supply Scheme. The replacement dam wall will broadly comply with the ROL requirements, though recognising that the new structure will be designed to meet more recent standards and guidelines (refer above), some minor amendments to the ROL are likely to be required. Changes (if any) to the downstream flow regime are not expected to be significant.

Major flooding in the Burnett River is relatively infrequent, however, under certain meteorological conditions, such as tropical low-pressure systems, heavy rainfalls can occur. Flooding from the upper catchment can overtop the existing Dam wall and flow onto downstream areas. There have been a series of flood events between 2010 and 2015 that led to widespread and repeated overtopping events at weirs and dams within the Burnett River catchment, including Paradise Dam, Ned Churchward Weir, Claude Wharton Weir and Jones Weir (Attachment 06 – Section 4.1.4).

Current streamflow and water level data are available from the Bureau of Meteorology Mt Lawless gauge, approximately 50 km upstream of Paradise Dam, and the Queensland Government Water Monitoring Information Portal gauge, Burnett River at Figtree Creek (Attachment 06 – Section 4.1.4).

There are no dams or weirs along the Burnett River between the Mt Lawless gauge and Paradise Dam. Downstream of the Paradise Dam and as part of the Bundaberg Water Supply Scheme (Attachment 01 – Figure 3) are the Ned Churchward Weir, Bingera Weir and the Ben Anderson Barrage. Beyond the Ben Anderson Barrage, the Burnett River flows into the ocean.

Relatively recent streamflow data from 2019 to 2024 shows high variability of flows with peak flow events occurring from January 2019 to October 2021 with a period of higher flow around November 2021 to August 2022, after which flows reduce again and have begun to increase as of July 2024 (Attachment 06 - Figure 4-4). Stream level (m) shows a similar but less pronounced trend with higher water levels from October 2021 to August 2022 (Attachment 06 – Figure 4-5). Peak flow events tend to follow heavy rainfall events associated with tropical lows and cyclones (Attachment 06 – Section 4.1.4).

Figtree Creek monitoring site is approximately 12 km downstream of the existing Dam wall and shows a very similar temporal pattern of stream flow but with higher values at a maximum flow of 2,346 m3/s (Attachment 06 – Figure 4-6). As with the Mt Lawless data, Figtree Creek showed a similar trend with higher water levels from October 2021 to August 2022, but water levels were higher than those from Mt Lawless (Attachment 06 - Figure 4-7).

Groundwater (summarised from Paradise Dam Environmental Impact Statement 2002):

Groundwater has played a major role in the development of the Bundaberg district and the wider Burnett region. In the latter part of the 1800s, the availability of groundwater enabled the development of an extensive cattle industry in the Burnett District. This was followed by the establishment of the irrigated sugar cane industry in the Bundaberg Area in the early 1900s. There are three major sources of groundwater within the Burnett Region (Burnett Water 2002):

- Bundaberg Area – Elliott Formation Fairymead beds
- Mulgildie and Mundubbera – consolidated sediments

- Major streams – alluvial deposits

The Disturbance footprint lies on the Elliott Formation which consists of unconsolidated sands, gravels and clays located along the coastal strip from the Gregory River in the south to Littabella Creek in the north. Yields from the formation are in the order of 10 - 30 L/s from depths to 30 metres. South of The Hummock, groundwater in the Elliott Formation is high in magnesium ions, which limits its use for irrigation.

The Fairymead Beds underlie the Elliott Formation over much of its extent. Yields from the Fairymead beds are better than from the Elliott Formation, generally ranging from 30 - 75 L/s (with flows recorded up to 100 L/s) down to a depth in excess of 90 metres.(Water levels in the Elliott Formation and Fairymead Beds are generally above sea level and have a gradient of water movement eastwards towards the sea, however the reasonably high yield rates and good transmissivity make the Fairymead beds susceptible to saltwater intrusion .

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.

—

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. *

The MNES Significant Impact Guidelines 1.1 state that approval under the EPBC Act is required for any action occurring within or outside a declared World Heritage property that has, will have, or is likely to have a significant impact on the World Heritage values of World Heritage property (DoE 2013).

Desktop searches, including utilisation of the PMST (specifically the World Heritage Properties layer) has not identified any areas of World Heritage within, adjacent or proximate to the proposed Action. The nearest World Heritage areas are the Great Barrier Reef World Heritage Area (GBRWHA) and K'gari (formerly known as Fraser Island) which are located approximately 90 km northeast and 112 km east of the PDIP area, respectively. Both areas of World Heritage are well outside the MNES search radius of 50 km and no direct impacts are considered likely to occur as a result of the proposed Action during construction or operation.

Of relevance to the proposed Action is the importance of water quality, as poor water quality impacts the health of the Great Barrier Reef and affects its resilience to other pressures (DCCEEW 2024). Water quality may also impact on the health of biodiversity on K'gari. The reduction in soil loss by controlling erosion, implementing revegetation and undertaking responsible land management practices are all noted as key factors in reducing sediment runoff to the GBRWHA or K'gari**.**

Potential climate change impacts are also acknowledged for GBRWHA and have been considered for construction and operation of the proposed Action, ensuring environmental impacts are avoided, minimised and/or mitigated as appropriate.

Water Quality

Whilst both GBRWHA and K'gari may be impacted by water quality from the Burnett River. It is presumed that, due to the distance from the mouth of the Burnett River, any reduction in water quality would have a greater impact on GBRWHA when compared with K'gari. Therefore, the impacts described below are focused on GBRWHA and it is presumed these impacts would be representative of any potential impact to K'gari.

Water quality targets have been set for all catchments that drain to the Great Barrier Reef. With reference to the *Burnett Mary Region – Burnett Catchment Water Quality Targets*, defined as part of the *Reef 2050 Water Quality Improvement Plan*, it is stated that rainfall averages 688 mm a year, which results in river discharges to the coast of about 1,076 gigalitres (GL) each year (DETSI 2025). The Burnett River captures the waters from the whole catchment at various points as it makes its way to the coast where its waters discharge into the GBRWHA (DETSI 2025). There are areas of sugarcane and horticulture near the coast, but the dominant land use is grazing (DETSI 2025).

The 2025 water quality targets and priorities for the Burnett Catchment aim to reduce the amounts of fine sediments, nutrients (nitrogen and phosphorus) and pesticides flowing to the coast (DETSI 2025). Each anthropogenic reduction target has been ranked from very high through to low or not assessed. Of the five reduction items identified for the Burnett Catchment, three are ranked as moderate priority (fine sediment, particulate phosphorus and particulate nitrogen) and two are ranked as low priority (dissolved inorganic nitrogen and pesticides) (DETSI 2025).

Given that the proposed Action seeks to replace the existing Dam wall (approximately 90 m downstream from the existing Dam wall) and would operate at the already approved FSL, it is not anticipated to have any measurable increase in fine sediments flowing to the GBRMP and GBRWHA. In the long term, the proposed Action would likely reduce the number of fine sediments flowing downstream through the improved design of the outlet structures and inundation of currently exposed areas (through returning the new Dam to the already approved FSL).

Short-term and temporary impacts to water quality may occur during the construction phase of the proposed Action, resulting from increased sediment loads caused by on-site erosion. Relative to the size of the entire Burnett Catchment (3,300,000 ha) the potential increased sediment load in the Burnett River

created from the proposed 53.3 ha (or 0.0016% of the total catchment) Disturbance footprint would be undetectable at the mouth of the river. Notwithstanding this, Sunwater will adopt best practice erosion and sediment control measures to further mitigate any short-term impacts during the construction phase.

Considering the above, the proposed Action will not result in a detectable change in water quality that will adversely impact biodiversity, ecological health, integrity, social amenity or human health within the GBRWHA or K'gari.

Climate Change

As outlined in the GBR Progress Report, climate change is the greatest threat to coral reefs worldwide and is a global threat that requires a global solution, including taking increased action through emission reduction targets and significant investments (DCCEEW 2024).

Sunwater, as a responsible entity and in accordance with its Environmental Policy (Attachment 05), actively seeks to minimise the potential for adverse impacts from its activities on the environment, identify ways of improving its environmental performance, and fulfill all environmental compliance obligations, ultimately contributing to the global effort in combating climate change related impacts by doing its part.

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. *

The MNES Significant Impact Guidelines 1.1 state that approval under the EPBC Act is required for any action occurring within or outside a National Heritage place that has, will have, or is likely to have a significant impact on the National Heritage values of the National Heritage place (DoE 2013).

The PMST (specifically the National Heritage Places layer) has not identified any National Heritage Places within, adjacent or proximate to the proposed Action. The nearest National Heritage Places are the same areas as the previously identified World Heritage areas, namely; Great Barrier Reef (GBR) and K'gari (formerly known as Fraser Island) which are located approximately 90 km northeast and 112 km east of the PDIP area, respectively. Both areas of National Heritage are well outside the MNES search radius of 50 km and no direct impacts are considered likely to occur as a result of the proposed Action during site establishment, construction, operational and post-construction rehabilitation phases.

Given the nature of the proposed Action, and the fact that Paradise Dam is already an approved, operational dam, the proposed Action (which plans to return Paradise Dam to the previously approved FSL through construction of a replacement dam wall approximately 90m downstream) is also not anticipated to cause any indirect impacts to the GBR or K'gari during the site establishment, construction, operational and post-construction rehabilitation phases.

As the National Heritage and World Heritage areas both relate to the GBR and K'gari, the impact assessment for these areas is essentially the same as for World Heritage (refer section 4.1.1), with the only additional consideration relating to Indigenous Heritage Values which is unique to National Heritage Places.

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.

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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 are no Ramsar Wetlands within, adjacent or proximate to the PDIP area.

The PMST shows that the nearest Ramsar Wetland, the Great Sandy Strait (including Great Sandy Strait, Tin Can Bay and Tin Can Inlet) is located approximately 100 km east of the Disturbance footprint. The Great Sandy Strait is a double-ended sand passage estuary with large horizontal tide movements which separates mainland Queensland from K’gari.

Importantly, the Burnett River does not drain into the Great Sandy Strait, or any other Ramsar Wetland; the Great Sandy Strait is located approximately 80 km south of the Burnett River mouth (Attachment 06 – Section 5.3).

Noting the distance to the Great Sandy Strait and the fact that Paradise Dam is already an approved and operational dam which is not seeking to increase the FSL, both direct and indirect impacts are considered highly unlikely during site establishment, construction, operational and post-construction rehabilitation phases of the proposed Action.

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	Arthraxon hispidus	Hairy-joint Grass
No	No	Bosistoa transversa	Three-leaved Bosistoa, Yellow Satinheart
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Coleus omissus	
Yes	No	Cossinia australiana	Cossinia
Yes	No	Cupaniopsis shirleyana	Wedge-leaf Tuckeroo
No	No	Cycas megacarpa	
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
Yes	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Egernia rugosa	Yakka Skink
Yes	No	Elseya albagula	Southern Snapping Turtle, White-throated Snapping Turtle
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Eucalyptus raveretiana	Black Ironbox
No	No	Falco hypoleucos	Grey Falcon
No	No	Furina dunmalli	Dunmall's Snake
Yes	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake

Direct impact	Indirect impact	Species	Common name
Yes	No	Hirundapus caudacutus	White-throated Needletail
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	Macroderma gigas	Ghost Bat
Yes	No	Neoceratodus forsteri	Australian Lungfish, Queensland Lungfish
No	No	Neochmia ruficauda ruficauda	Star Finch (eastern), Star Finch (southern)
No	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
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	Potorous tridactylus tridactylus	Long-nosed Potoroo (northern)
Yes	No	Pteropus poliocephalus	Grey-headed Flying-fox
Yes	No	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood
No	No	Rostratula australis	Australian Painted Snipe
Yes	No	Samadera bidwillii	Quassia
No	No	Sophora fraseri	
Yes	No	Stagonopleura guttata	Diamond Firetail
No	No	Tringa nebularia	Common Greenshank, Greenshank
Yes	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

Direct impact	Indirect impact	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

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. *

Most activities associated with the proposed Action occur within existing disturbed areas. However, some direct impacts are expected on protected matters (Attachment 04, Section 5.1, pp. 50–53 and Attachment 06, Section 5.1, pp. 136–142) primarily due to vegetation clearing.

For this assessment, the full Disturbance footprint (the Footprint) is assumed, though it is likely to decrease as engineering progresses, with Sunwater actively refining it to limit impacts.

Threatened Ecological Communities

Subtropical eucalypt floodplain forest and woodland

The Subtropical floodplain forest TEC is known to occur within the Footprint. The proposed Action will have a direct impact as a result in clearing of 1.35 ha of this TEC, resulting in a reduction in the extent of the ecological community. No indirect impacts are expected to occur (Attachment 04, Section 5.1.1, p. 50 to 51).

Threatened Terrestrial Flora and Fauna

Hairy-joint Grass (*Arthraxon hispidus*)

The Footprint lies at the edges of potential species habitat, with more suitable habitat likely to the northeast and southeast. Habitat within the footprint is already degraded by weed invasion and past clearing. Similar habitat is abundant nearby and will remain undisturbed. Given this, it is unlikely the proposed Action will reduce the area of occupancy of Hairy-joint Grass. Indirect impacts to adjacent habitat will be temporary and minimal (Attachment 04, Section 6.4.2, Pages 64 to 66).

Cossinia (*Cossinia australiana*)

Suitable habitat is present within the Footprint but is somewhat degraded by access tracks, edge effects, and Lantana. The proposed Action will directly impact 7.35 ha of this habitat (RE 12.11.12). Similar, less disturbed habitat in the surrounding area will remain untouched. Direct impacts are considered minor to negligible. Indirect impacts to adjacent vine forest habitat will be temporary and very minor (Attachment 04, Section 6.4.1, pp. 62–64)

Wedge-leaf Tuckeroo (*Cupaniopsis shirleyana*)

Wedge-leaf Tuckeroo has not been recorded within the Footprint, PDIP area or surrounds during flora surveys. All known records are east of the PDIP area. While 7.35 ha of suitable habitat exists within the footprint, it is significantly disturbed by prior clearing, access tracks, edge effects, and Lantana. Indirect impacts to adjacent vine forest habitat will be temporary and very minor (Attachment 04, Section 6.4.4, pp. 69–71)

Quassia (*Samadera bidwillii*)

The species has not been recorded within the Footprint, PDIP area, or surrounds during flora surveys. Scattered records exist nearby, with the closest 31 km south and northeast of the footprint. Within the PDIP area bordering the footprint, 52.14 ha of potential habitat will remain undisturbed. No direct impacts to Quassia are expected. Indirect impacts will be temporary and very minor (Attachment 04, Section 6.4.3, pp. 66–69)

Scrub Turpentine *(Rhodamnia rubescens)*

Scrub Turpentine has not been recorded within the Footprint or surrounds during flora surveys by Epic Environmental. The closest recent record (2024) is about 80 km southeast near Maryborough. There is 7.35 ha of suitable habitat within the footprint, but it is disturbed by clearing, edge effects, Lantana, and Myrtle Rust. No direct impacts to Scrub Turpentine are expected. Indirect impacts to adjacent vine forest will be temporary and very minor (Attachment 04, Section 6.4.5, pp. 71–74)

Grey-headed Flying-fox (*Pteropus poliocephalus*)

A total of 89.36 ha of foraging habitat has been identified within the PDIP, mostly Spotted Gum-dominated habitat. The species may also forage in vine forest when fruiting. Up to 13.19 ha is within the Footprint and may be impacted by the proposed Action. Extensive areas of identical vegetation in the adjacent landscape will remain unaffected. An important population is not present. While up to 13.19 ha of suitable habitat may be impacted, evidence indicates limited local occurrence and abundant identical habitat nearby. Based on this assessment, a significant impact to the species is unlikely (Attachment 04, Section 6.5.4, pp. 87-89)

White-throated Needletail (*Hirundapus caudacutus*)

The species is primarily aerial in its foraging and resting habits in Australia, rarely roosting. It is found over various habitats, including open land, modified areas, and oceans, but most often over woodlands. It is widespread in eastern Australia during warmer months, with some overwintering. The airspace above the proposed Action will provide ephemeral foraging habitat. The proposed Action will require clearing of 13.19 ha of woody vegetation within the Footprint. Abundant surrounding woodland habitat will remain unaffected. The proposed Action is expected to have a very minor impact on the species (Attachment 04, Section 6.1.4, pp. 57–58)

Black-breasted Button-quail (*Turnix melanogaster*)

No important populations of the species are identified. The species has not been recorded within the Footprint, PDIP area, or surrounds during the surveys. There is 7.65 ha of suitable habitat in the footprint, but its suitability is uncertain due to a rocky substrate and lack of deep leaf litter observed in the 2023 survey. Similar, likely less disturbed habitat exists nearby and will remain undisturbed. Given the habitat's unsuitability, direct impacts are unlikely. Indirect impacts will be temporary and very minor (Attachment 04, Section 6.5.1, pp. 74–77)

Diamond Firetail (*Stagonopleura guttata*)

The nearest and most recent record is from 2023, about 40 km southwest of the PDIP area. Some portions of the PDIP area and Footprint contain suitable habitat, but also dense non-native grass (e.g., Red Natal Grass, Buffel Grass) and weedy groundcover like Creeping Lantana. These invasive species prevent native grasses, the species' preferred food, from growing. Without a diverse, high-density native grass layer, it's unlikely the habitat can support the species. Therefore, the proposed Action is not expected to cause more than a very minor impact on the species (Attachment 04, Section 6.1.2, p. 57)

Latham's Snipe (*Gallinago hardwickii*)

The species has the potential to utilise the shallow edges of the Dam impoundment area where there is exposed mud present. The habitat is not associated with flowing riverine habitats as occurs immediately downstream of the existing Dam. As the proposed Action will not ament the Dam impoundment area and there being no suitable habitat downstream of the Dam wall, is considered unlikely the proposed Action will have a direct or indirect impact on the Latham's Snipe. (Attachment 04, Section 6.1.5, p. 58)

Greater Glider (Southern) (*Petauroides volans*)

The species has not been recorded within the PDIP area or surrounds during the surveys (including spotlighting). Abundant similar habitat exists nearby and will remain undisturbed. Given the availability of eucalypt habitat around the proposed Action, a direct impact on the Greater Glider population size is unlikely. Indirect impacts to habitat will be temporary and minimal (Attachment 04, Section 6.5.2, pp. 78–82)

Koala (*Phascolarctos cinereus*)

The species (including signs of presence) has not been conclusively recorded within the PDIP area or surrounds during the surveys. Older records exist nearby (7 km southeast of the proposed Action), with recent records in the last five years (42–46 km away). Preferred forage tree species in southeast Queensland include Queensland Blue Gum, Spotted Gum, and Narrow-leaved Ironbark. The proposed Action may directly impact 2.26 ha of preferred and 3.58 ha of potential Koala habitat. Abundant similar

habitat nearby will remain undisturbed. Queensland Government mapping shows over 4,000 ha of eucalypt vegetation within 10 km. Indirect impacts from the Action will be temporary and very minor. (Attachment 04, Section 6.5.3, pp. 82–86)

Yellow-bellied Glider (*Petaurus australis australis*)

Despite suitable habitat, with foraging trees and hollows within the PDIP area (mainly remnant RE 12.11.6), no Yellow-bellied Gliders were observed during spotlighting, and no calls, feeding notches, or scratches were found in any field surveys. The absence of evidence and the small direct impact to habitat suggests the proposed Action will not impact this species (Attachment 04, Section 6.1.3, p. 57)

Collared Delma (*Delma torquata*)

Targeted trapping did not record the species. The nearest record is from 2021, located 27 km northwest of the PDIP area. While open sclerophyll woodlands exist in the Footprint, the ground cover lacks the preferred fallen debris, loose rock, and thick leaf litter. Introduced grasses dominate, and an open mid-storey was absent. The proposed Action is not expected to impact this species (Attachment 04, Section 6.1.1, pp. 56–57)

Aquatic Ecology

Australian lungfish (*Neoceratodus forsteri*)

The species was found within the Study Area, with records from both upstream and downstream reaches, and beyond. Studies confirm spawning activity both upstream and downstream of Paradise Dam. Habitat mapping identified 7.50 km² of potential foraging habitat and 0.89 km² of potential spawning habitat across the Study Area (Attachment 06, Sections 5.1 and 5.2). The impacts from the proposed action are expected to be minor (Attachment 06, Section 5.3.1, pp. 148–152).

White-throated snapping turtle (WTST) (*Elseya albagula*)

The WTST has been recorded in the Study Area, with individuals sparsely distributed throughout, particularly in Barambah Creek. Habitat mapping identified 7.74 km² of potential foraging habitat, 0.38 km² of potential nesting habitat, and 0.33 km² of known nesting habitat. Detections were concentrated between Gayndah and Mingo Crossing, where any direct impact from the proposed Action is expected to be negligible (Attachment 06, Sections 5.1 and 5.2). The impacts from the proposed Action on the species are expected to be minor (Attachment 06, Section 5.3.1, pp. 144–148).

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. *

The MNES Significant Impact Guidelines 1.1 state that an action will require approval if the action has, will have, or is likely to have a significant impact on a species listed in any of the following categories (DoE 2013):

- Extinct in the wild
- Critically endangered
- Endangered
- Vulnerable

An action will also require approval if the action has, will have, or is likely to have a significant impact on an ecological community listed in any of the following categories (DoE 2013):

- Critically endangered, or
- Endangered

Assessments of direct and indirect impacts to threatened species and ecological communities, both terrestrial and aquatic, have been completed and can be viewed in:

- Attachment 04, Terrestrial Ecology Report (Section 6, Pages 62-93)
- Attachment 06, Aquatic Ecology Report (Section 5.3.1, Pages 144-152)

Summarised outcomes from these reports have been provided below.

Flora:

The Disturbance footprint is expected to impact 1.35 ha of Subtropical floodplain forest TEC. Impacts to this TEC were assessed against the criteria listed in the MNES Guideline. Assessment against several criteria suggested that significant impacts are likely to occur, including:

- The Disturbance footprint will result in clearing of 1.35 ha of Subtropical floodplain forest TEC, resulting in a reduction in the extent of the ecological community
- The proposed Action is expected to adversely impact habitat critical to the survival of the TEC

The approved conservation advice for the TEC identifies priority conservation actions, including: Protect and conserve remaining areas of the ecological community. The clearing of 1.35 ha of the TEC is considered interfering with the recovery of the TEC. Based on the criteria above it is considered likely that the proposed Action will result in a significant impact to the Subtropical floodplain forest TEC. (Attachment 04, Section 6.3.1, Pages 60 to 62).

Terrestrial Fauna:

Impacts to fauna MNES from the proposed Action were subject to an assessment for significant impacts under the Commonwealth MNES Guideline criteria. Significant impacts to MNES flora and fauna species are considered unlikely in accordance with the MNES Guideline, with the exception of Koala. The Disturbance footprint will impact up to 2.56 ha of preferred Koala foraging/breeding habitat and 3.28 ha of potential Koala habitat which could be considered as critical to the survival of the species. In accordance with the MNES Guideline, it is considered there is potential for a significant impact to Koala to occur as a result of vegetation clearing for the proposed Action. (Attachment 04, Section 6.5.3)

Aquatic Fauna:

The significant impact assessment undertaken in Attachment 06 on aquatic fauna determined that the proposed Action is unlikely to have a significant impact on the Australian Lungfish and the White-throated Snapping Turtle (Attachment 06, Section 5.3.1).

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. *

Subtropical floodplain forest TEC:

The Subtropical floodplain forest TEC is known to occur in the South East Queensland Interim Biogeographic Regionalisation for Australia (IBRA) bioregions and extends as far north as Gladstone in Queensland to just north of Newcastle in New South Wales. This TEC has been ground-truthed within the Disturbance footprint (considered analogous to two REs (RE 12.3.3 and RE 12.3.7)). These occur as riparian communities along the bank of the Burnett River (upstream and downstream of the dam wall) and Allen Creek and comprise a woodland to open woodland canopy of Queensland Blue Gum, Moreton Bay Ash, and other eucalypt species (Attachment 04, Section 6.3.1).

There is 1.35 ha of moderate condition vegetation analogous with Class C2 Subtropical floodplain forest TEC ground-truthed as occurring within the Disturbance footprint, along Allen Creek, comprising 0.95 ha of RE 12.3.3 (remnant) and 0.404 ha of RE 12.3.7 (remnant) (Epic Environmental 2025).

Based on the MNES criteria assessment above it is considered likely that the proposed Action will result in a significant impact to the Subtropical floodplain forest TEC and is therefore potentially a controlled action for listed threatened species and ecological communities.

Koala:

Koalas have a distinct association with eucalypt woodland and forest habitats comprising suitable food trees, mainly of the following genus: *Eucalyptus*, *Corymbia*, *Angophora* and *Melaleuca* (Attachment 04 – Section 6.5.3.1); they are not necessarily restricted to bushland areas and are known to occur and breed where suitable tree species occur within farmland and the urban environment. Similarly, movement is not confined to vegetated corridors, as they also move across cleared rural land and through suburbs (Martin et al. 2008). They may use a variety of trees, including many non-eucalypts, for feeding, shelter and breeding purposes (Dique et al. 2004; Martin et al. 2008).

No Koalas have been recorded within the PDIP area or wider surrounds during ecology surveys in 2019/2020, 2022, 2023, 2024 and 2025. There are a large number of database records in the surrounding area, however, all nearby records are older (1980s and 1990s). The nearest record is from 1988 and located 7 km south-east of the PDIP area. The nearest recent records from the wider area include a 2020 record near Gin Gin (42 km north), 2021 record near Mungy State Forest (43 km west) and a 2024 record from Nour Nour National Park (47 km north-west) (ALA 2025) (Attachment 04, Section 6.5.3.2).

Queensland Blue Gum, Spotted Gum and Narrow-leaved Ironbark are all considered ‘locally important’ trees for Koala in the south-east Queensland region (Youngentob et al. 2021). These species are present in the PDIP area. Queensland Government threatened species habitat mapping (essential habitat and protected wildlife habitat) indicates there is habitat present along Allen Creek that is suitable for Koala (Epic Environmental 2025).

There is no conclusive evidence that Koala currently uses habitat within the PDIP area or surrounds to any substantive degree, even though surveys have been undertaken from 2019 to 2025 (Epic Environmental 2025). This includes active searches and spotlighting in 2019, 2022 and 2024. The existing Dam already occurs in a landscape fragmented by the existing Dam and associated infrastructure. The Burnett River also likely serves as a landscape movement barrier to the species. With mitigation measures in place (i.e. pre-clearance surveys, the use of fauna spotter catchers during clearing, and pest and weed measures) the proposed Action is not anticipated to increase threats to the species in the area.

The Disturbance footprint comprises up to 2.56 ha of preferred Koala habitat and 3.28 ha of potential Koala habitat. There are extensive tracts of identical vegetation remaining in the adjacent landscape which will not be impacted by the proposed Action. Queensland vegetation mapping indicates there is over 4,000 ha of suitable eucalypt habitat located with 10 km of the PDIP area.

In summary, the proposed Action may impact up to 2.56 ha of preferred Koala habitat and 3.28 ha of potential Koala habitat which could be considered as critical to the survival of the species. However, based on the lack of conclusive sightings and evidence of Koalas within the PDIP area or surrounds during surveys from 2019 to 2025, it is considered possible (rather than likely) there could be a significant impact to Koala as a result of the proposed Action and is therefore potentially a controlled action for listed threatened species and ecological communities.

(Attachment 04, Section 6.5.3)

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. *

Sunwater will commit to a range of mitigation measures to avoid and/or minimise impacts to threatened species associated with the proposed Action. Preliminary design phases have reduced the potential Disturbance footprint, based on desktop and field-based review, and potential impact to MNES. Mitigation measures will be documented in and implemented under an overarching CEMP and OEMP and relevant sub-plans to mitigate potential impacts to MNES values.

Specific measures such as site-based environmental awareness training, clearly defined vegetation clearing extents, utilisation of licenced fauna spotter catchers and ongoing rehabilitation, where possible. Specific sub-plans include (but are not limited to): Erosion and Sediment Control Plan, Biosecurity and Weed/Pest Management Plan, Flora and Fauna Management Plan and Water Quality Management Plan amongst others.

Sunwater takes seriously its responsibility to minimise the potential for adverse impacts from their activities on the environment, as has been demonstrated through the operation of Paradise Dam and presence of threatened species described in this referral. Further, Sunwater always seeks to identify ways of improving environmental performance. As part of ongoing mitigation and management measures, Sunwater will set achievable environmental targets, with clear reporting against these targets and will fulfill all environmental compliance obligations.

Further details on proposed avoidance and mitigation measures are detailed in Attachment 04 – Section 5.2 and Attachment 06 – Tables 5-1 and Table 5-2.

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

Sunwater is currently investigating options to provide a land-based offset package associated with impacts on Koala habitat and the TEC. Sunwater holds extensive land parcels and is currently assessing their suitability for development of an offsets package.

Two properties have been targeted for recent offset suitability surveys associated with the Concrete Batch Plant and Trial Embankment Area (EPBC Application - 02944) which may cause a significant impact on habitat suitable for Koala. The survey information is to inform an Offset Management Plan covering the impact of the early works stage. The properties comprise habitat areas considered suitable for providing offset sites for Koala which are larger than that required for the early works stage and may be used for the impacts associated with the proposed Action. The properties may also comprise possible Subtropical floodplain forest TEC. An adjacent property (yet to be surveyed) likely provides similar values. Once assessed and identified as suitable, an Offset Management Plan for the proposed Action will be developed and the sites will be secured and managed as required.

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
Yes	No	Actitis hypoleucos	Common Sandpiper
Yes	No	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	Crocodylus porosus	Salt-water Crocodile, Estuarine Crocodile
Yes	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
Yes	No	Hydroprogne caspia	Caspian Tern
Yes	No	Pandion haliaetus	Osprey
Yes	No	Thalasseus bergii	Greater Crested Tern
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. *

The MNES Significant Impact Guidelines 1.1 state that an action will require approval if the action has, will have, or is likely to have a significant impact on a listed migratory species (noting that some migratory species are also listed as threatened species) (DoE 2013).

It has been identified that the proposed Action has the potential to impact migratory species during site establishment, construction, operational and post-construction rehabilitation phases. Ecological assessments of impacts to migratory species, both terrestrial and aquatic, have been completed and can be viewed in:

- Attachment 04, Terrestrial Ecology Report (Section 4.6 and 6.1)
- Attachment 06, Aquatic Ecology Report (Section 5.3)

Summarised information from these assessments is provided below.

Terrestrial Migratory Species:

Eleven fauna species listed as Migratory were identified as potentially present in the PMST report (Attachment 04, Section 4.6, Page 47); five of these are also listed as threatened species, and two have been previously recorded in the wider area from the Wildnet database search. Most of these species have some potential to use portions of the PDIP area or surrounds given the breadth of habitats present including a variety of wetland types associated with the Burnett River and dam impoundment area. The likelihood of occurrence assessment identified three species as known to occur and three species as possibly occurring within the PDIP area, namely:

Known to occur:

- Caspian Tern (*Hydroprogne caspia*), the species has previously been observed over the existing Dam impoundment and Burnett River during surveys in 2019 and 2022
- Greater Crested Tern (*Thalasseus bergii*) was observed over the existing Dam impoundment during a survey in 2024
- Osprey (*Pandion haliaetus*), observed at the dam wall in 2022 during a survey for the Action in 2022. Suitable foraging habitat occurs in the impoundment and possibly along the Burnett River

Possibly occurring:

- Common Sandpiper (*Actitis hypoleucos*), marginal habitat occurs adjacent to the Disturbance footprint downstream of the dam wall. The nearest record of the species is located 25 km northeast of the PDIP area
- Fork-tailed Swift (*Apus pacificus*), the species may occur over almost any habitat. The nearest record of the species is located 25 km northeast of the PDIP area. The species may forage aerially above the Disturbance footprint
- Oriental Cuckoo (*Cuculus optatus*), suitable woodland habitat occurs within the Disturbance footprint. The nearest record of the species is located 13 km southwest of the PDIP area

(Attachment 04 – Table 6)

Whilst each of the above species are reliant on the presence of aquatic habitat which is abundant upstream and downstream of the Disturbance footprint, none of the migratory species listed above are at the limit of their range in the area or in an area where the species is thought to be. There is no evidence that habitat of critical importance occurs for any of the species within or near the Disturbance footprint (Attachment 04, Section 6.1.6).

Direct impacts to migratory species may occur through vegetation clearing whereby the removal of habitat may reduce the size of species dependent on that habitat. These impacts are immediate and may be significant in the short-term, impacts may persist in the long-term if habitat created during rehabilitation

does not closely resemble pre-disturbance ecosystems (Attachment 04, Section 5.1.1). Other impacts to migratory species may be seen through limited habitat fragmentation, noise generation, artificial lighting and bushfire/altered fire regimes.

The potential for significant impacts during site establishment, construction, operational and post-construction rehabilitation phases on any of these species, however, is considered negligible at worst, given the nature of the habitat within the Disturbance footprint and noting it has already been impacted and fragmented by the existing Dam (Attachment 04, Section 5.1.2).

Aquatic Migratory Species:

The Saltwater crocodile (*Crocodylus porosus*) is listed as migratory under the EPBC Act and vulnerable under Queensland's NC Act. The species is the largest living reptile in the world, with males being 5 m long on average and weighing over 450 kg (Attachment 06 – Section 4.1.7.4).

The species is known for its adaptability to a wide range of habitats, from brackish and saltwater coastal environments to freshwater river systems. In Australia, they inhabit the northern coastlines of Western Australia, the Northern Territory, and Queensland, where they are often found in estuaries, rivers, and offshore islands. Their range in Australia is primarily determined by temperature and food availability (Attachment 06 – Section 4.1.7.4).

Very few river systems in Queensland have heavily vegetated freshwater floodplains and swamps that house the traditionally large proportion of the total Northern Territory population. Much of Queensland's habitat is considered to be marginal for the species due to climate, low availability of good nesting vegetation, or low inherent fertility (Attachment 06 – Section 4.1.7.4).

There are no records of crocodile presence within the PDIP area, although crocodiles are known to exist within the wider Mary-Burnett Basin, with records existing within Mary River, whose mouth is approximately 90 km south of the Burnetts. A crocodile was reported near Sandy Hook in 2020, approximately 90 km downstream (stream distance) of the Paradise dam wall, however this sighting has yet to be confirmed by DETSI (Attachment 06 – Section 4.1.7.4). It is unlikely that crocodiles are present within the PDIP or wider area and therefore unlikely to be impacted by the project.

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. *

For listed Migratory species that are not threatened, the significant impact criteria outlined in the MNES Significant Impact Guidelines 1.1 state that; an action is likely to have a significant impact on a Migratory species if there is a real chance or possibility that it will:

- Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species
- Result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species, or
- Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species

Detailed assessments of impacts to terrestrial migratory species has been completed

- (Attachment 04, Section 6.5)

Terrestrial Migratory Species:

The MNES Guideline criteria for Migratory species requires an assessment of the potential for ‘important habitat’ to be present within or near the Disturbance footprint or that an ‘ecologically significant proportion of the population’ may be disrupted by the PDIP. Important habitat is defined as the following:

- Habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species
- Habitat that is of critical importance to the species at particular life-cycle stages
- Habitat utilised by a migratory species which is at the limit of the species range and/or
- Habitat within an area where the species is declining

None of the Migratory species identified in section 4.1.5.2 of this referral are at the limit of their range in the area or in an area where the species is thought to be declining. There is no evidence that habitat of ‘critical importance’ occurs for any of the species within or near the disturbance footprint (Epic Environmental 2025).

An ecologically or nationally significant proportion of the population (at 0.1% of the population as described in DE 2015)) of the various species comprises the following:

- Eastern Osprey - 24 individuals (DE 2015)
- Common Sandpiper - 190 individuals (DE 2016). No historical records of the species within the PDIP area with the nearest record located 27 km to the north and dated 1995 (ALA 2024)
- Oriental Cuckoo – 1,000 individuals (DE 2015)
- Caspian Tern – No information regarding significant populations is available for this species

These species are all reliant on the presence of aquatic habitat which is abundant upstream and downstream of the Disturbance footprint (Epic Environmental 2025).

There is no evidence the habitats within the Disturbance footprint would support an ecologically significant proportion of the populations of any of the discussed species . As such, the potential for significant impacts on any of these species or their habitat is negligible at worst (Attachment 04, Section 6.1.6, Page 58)).

Aquatic Migratory Species:

No significant impact is anticipated for the Saltwater crocodile as it is unlikely that crocodiles are present within the PDIP area, given there are no records of its presence

Importantly, Paradise Dam is a currently approved and operational dam, the return of Paradise Dam to its already approved FSL through construction of a replacement dam wall approximately 90 m downstream will not substantially modify, destroy or isolate an area of important habitat for the species, nor will it result in an invasive species that is harmful to Saltwater crocodile becoming established. Further, the proposed Action will not disrupt the lifecycle of an ecologically significant proportion of the population.

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. *

No significant impacts on any Migratory species are anticipated as a result of the proposed Action as outlined in section 4.1.5.6 of this referral and as detailed in Attachment 04, Section 6.1.

Paradise Dam is a currently approved and operational dam and the return of Paradise Dam to its already approved FSL (via the proposed Action) will not result in any significant impacts to Migratory species, and therefore, the proposed Action is not considered a controlled action.

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. *

Sunwater will commit to a range of mitigation measures to avoid and/or minimise impacts to MNES values associated with the proposed Action. Initially, the detailed design process will aim to further reduce the area of impact to vegetated areas representing habitat for species as much as is feasible for construction. Where avoidance is not possible, a range of mitigation strategies will be implemented under an overarching CEMP and OEMP. The CEMP and OEMP and all relevant sub-plans will comprise a range of measures that will mitigate potential impacts to MNES values.

Other mitigation measures such as site-based environmental awareness training, clearly defined vegetation clearing extents, utilisation of licenced fauna spotter catchers and ongoing rehabilitation where possible and appropriate will also be undertaken. Additional management plans will also be developed and will include (but are not limited to): Erosion and Sediment Control Plan, Biosecurity and Weed/Pest Management Plan, Flora and Fauna Management Plan and Water Quality Management Plan amongst others.

Further details on proposed avoidance and mitigation measures are detailed in:

- Attachment 04 – Terrestrial Ecology Report (Section 5.2)
- Attachment 06 – Aquatic Ecology Report (Table 5-1 and Table 5-2)

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

No offsets are proposed for Migratory species as these species will not be significantly impacted.

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. *

The proposed Action does not constitute nor is it related to a nuclear action.

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. *

A Commonwealth Marine Area is any part of the sea that isn’t state or territory waters but is within Australia’s Exclusive Economic Zone and/or over the continental shelf of Australia and includes the water, seabed and airspace. The Commonwealth Marine Area stretches between 3 and 200 nautical miles from the coast.

The PMST has confirmed there are no Commonwealth Marine Areas within, adjacent or proximate to the Disturbance footprint. Therefore, the potential for direct and indirect impacts as a result of the proposed Action to a Commonwealth Marine Area is considered unlikely.

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 MNES Significant Impact Guidelines 1.1 for the Great Barrier Reef Marine Park (GBRMP) state that an action will require approval if:

- The action is taken in the GBRMP and the action has, will have, or is likely to have a significant impact on the environment, or
- The action is taken outside the GBRMP and the action has, will have, or is likely to have a significant impact on the environment in the Great Barrier Reef Marine Park

The *Great Barrier Reef Progress Report to UNESCO World Heritage Centre* (GBR Progress Report), dated February 2024 states that the Great Barrier Reef covers an area of 344,000 km2 which is roughly the same size area as Italy or Japan and has more than 35 catchments which drain into the reef across a 423,000 km2 catchment, an area bigger than Norway (DCCEEW 2024). The GBR Progress Report addresses issues raised in the World Heritage Committee Decision 45COM 7B.13 and provides updates on commitments concurrently with regards to improving water quality, sustainable fishing, and mitigating climate change impacts.

Of relevance to the proposed Action is the importance of water quality, as poor water quality impacts the health of the Great Barrier Reef and affects its resilience to other pressures (DCCEEW 2024). The reduction in soil loss by controlling erosion, implementing revegetation and undertaking responsible land management practices are all noted as key factors in reducing sediment runoff to the GBRMP.

Potential climate change impacts are also acknowledged and must be kept at the forefront for construction and operation of the proposed Action, ensuring environmental impacts are avoided, minimised and/or mitigated as appropriate.

Burnett Catchment Water Quality Targets:

It is understood that water quality targets have been set for all catchments that drain to the Great Barrier Reef. With reference to the *Burnett Mary Region – Burnett Catchment Water Quality Targets*, defined as part of the *Reef 2050 Water Quality Improvement Plan*, it is stated that rainfall averages 688 mm a year, which results in river discharges to the coast of about 1,076 gigalitres (GL) each year (DETSI 2025). The Burnett River captures the waters from the whole catchment at various points as it makes its way to the coast where its waters discharge into the Great Barrier Reef Marine Park (DETSI 2025). There are areas of sugarcane and horticulture near the coast, but the dominant land use is grazing (DETSI 2025).

The 2025 water quality targets and priorities for the Burnett Catchment aim to reduce the amounts of fine sediments, nutrients (nitrogen and phosphorus) and pesticides flowing to the reef (DETSI 2025). Each anthropogenic reduction target has been ranked from very high through to low or not assessed. Of the five reduction items identified for the Burnett Catchment, three are ranked as moderate priority (fine sediment, particulate phosphorus and particulate nitrogen) and two are ranked as low priority (dissolved inorganic nitrogen and pesticides) (DETSI 2025).

The water quality targets cite that the Burnett Catchment contributes the second largest anthropogenic loads of dissolved inorganic nitrogen and fine sediment in the region, with most of the dissolved inorganic nitrogen coming from sugarcane and most of the fine sediment coming from streambank erosion (DETSI 2025). Paradise Dam, as a currently approved and operational dam does not meaningfully contribute to dissolved inorganic nitrogen levels, however, the existing Dam could be contributing to fine sediment loads from streambank erosion (the leading type of sediment erosion in the catchment) (DETSI 2025).

Given the proposed Action seeks to replace the existing Dam wall (approximately 90 m downstream from the existing Dam wall), and would operate at the already approved FSL, is not anticipated to have any measurable increase to fine sediments flowing to the GBRMP. In the long-term, the proposed Action would likely reduce the amount of fine sediments flowing downstream as the new dam returns to FSL (through construction of the proposed Action) and inundates currently exposed areas.

Short term and temporary impacts to water quality associated with the construction phase of the proposed Action may occur as a result of increased sediment loads being caused by on-site erosion. Relative to the size of the entire Burnett Catchment (3,300,000 ha) the potential increased sediment load in the Burnett River created from the proposed 53.3 ha Disturbance footprint would be undetectable at the mouth of the river. Notwithstanding this Sunwater will be adopting best practice erosion and sediment control to further mitigate any short-term impacts during the construction phase.

Furthermore the proposed Action does not occur within, adjacent or proximate to the GBRMP. The PMST (specifically the GBRMP layer) identifies that the southern extent of the GBRMP is located approximately 100 km northeast of the proposed Action, and 45 km to the north of the Burnett River mouth (Hydrobiology 2025). The GBRMP is outside the MNES search radius of 50 km (from the proposed Action) and no direct impacts are considered likely to occur as a result of the proposed Action during construction or operation. As the proposed Action is not being undertaken within the GBRMP, approval/permission is not required under the *Great Barrier Reef Marine Park Act 1975*.

Considering the above the proposed Action will not result in a substantiative change in water quality that will adversely impact on biodiversity, ecological health or integrity or social amenity or human health within the GBRMP.

Climate Change:

As outlined in the GBR Progress Report, climate change is the greatest threat to coral reefs worldwide and is a global threat that requires a global solution, including taking increased action through emission reduction targets and significant investments (DCCEEW 2024).

Sunwater, as a responsible entity and in accordance with its Environmental Policy (Attachment 05), actively seeks to minimise the potential for adverse impacts from its activities on the environment, identify ways of improving its environmental performance, and fulfill all environmental compliance obligations, ultimately contributing to the global effort in combating climate change related impacts by doing its part.

Summary

Given the nature of the proposed Action, the distance to the GBRMP, and the fact that Paradise Dam is already an approved, operational dam, the proposed Action is not anticipated to cause any indirect impacts to the GBRMP during the site establishment, construction, operational and post-construction rehabilitation phases.

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 is not a large coal mine development or coal seam gas project.

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 located within, adjacent or proximate to the proposed Action, as confirmed by the PMST. No direct or indirect impacts on Commonwealth Land are anticipated as a result of the proposed Action.

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. *

The proposed Action is located in Australia and will not have any direct or indirect impacts on Commonwealth Heritage Places Overseas.

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. *

Following the essential works, the Queensland Government commissioned an option assessment in 2020 to review available options for the Paradise Dam. Following the option assessment, three Paradise dam options were identified as suitable to progress for further evaluation as part of the detailed business case. These options included:

- Option 1 – return the primary spillway back to its original height (FSL)
- Option 2 – permanent lowering of the primary spillway level at 5m below the original height
- Option 3 – permanent lowering of the primary spillway to 10m below the original height

The above options were evaluated based on Dam Safety and Water Security. Based on this criteria it was determined Option 1 would achieve the optimal balance of safety and water reliability for the Bundaberg region. Consequently, in December 2021, the Queensland Government confirmed that Paradise Dam would be returned to its full height.

Since this announcement, Sunwater has progressed with investigations into the feasibility of repairing the existing Dam wall structure. This continued throughout 2022 and 2023 and resulted in a concept design (termed the ‘Reference Design’). A program of intensive testing was undertaken to inform design development and identified three unexpected new issues regarding the long-term strength and quality of the existing Dam’s concrete. These issues were identified as stemming from the existing Dam’s original construction and included swelling clay, cement leaching, and carbonation.

The new issues were unprecedented as dams are usually not tested for long-term strength loss. Because of this, Sunwater, along with its partners and independent experts, was required to develop a bespoke and world-first concrete testing program. Results from the testing program showed that Paradise Dam was built with a far higher percentage of clay than the majority of other RCC dams in the world. The results also confirmed that the existing structure was a compromised asset, and in January 2024, the Queensland Government announced that Sunwater would begin planning for a new Paradise Dam wall on the Burnett River to ensure a safe and secure water supply for the Wide Bay Burnett and Bundaberg regions.

Alternative locations, timelines, and activities are not considered appropriate due to the level of risk associated with any delay to the proposed Action. Risks that would arise as a result of delayed timeframes are not limited to water demand and security, the most important risk is public safety. A compromised asset of this magnitude requires swift rectification to ensure dam wall failure does not occur and to reduce overall dam safety risks to an acceptable level in accordance with regulatory requirements.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 01 - Referral Figures.pdf Figures describing the project area, disturbance footprint, project locality and Bundaberg Water Supply Scheme		No	High
#2.	Document	Attachment 03 - Memorandum Summary.pdf A memorandum summary provides an overview of the contents of this referral		No	High
#3.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	30/05/2025	No	High

1.2.5 Information about the staged development

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 01 - Referral Figures.pdf Figures describing the project area, disturbance footprint, project locality and Bundaberg Water Supply Scheme		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	Attachment 02 - PDIP Approvals Register.pdf Paradise Dam Improvement Project Approvals Register		No	High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High
#2.	Document	Attachment 05 – Sunwater’s Environmental Policy.pdf Sunwater's Environmental Policy		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	Attachment 05 – Sunwater’s Environmental Policy.pdf		No	High

Sunwater's Environmental Policy

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 01 - Referral Figures.pdf Figures describing the project area, disturbance footprint, project locality and Bundaberg Water Supply Scheme		No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 01 - Referral Figures.pdf Figures describing the project area, disturbance footprint, project locality and Bundaberg Water Supply Scheme		No	High
#2.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025	No	High
#3.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025	No	High
#4.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025	No	High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025	No	High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	10/06/2025	No	High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	10/06/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025	No	High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025		High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025	No	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025	No	High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025	No	High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 01 - Referral Figures.pdf Figures describing the project area, disturbance footprint, project locality and Bundaberg Water Supply Scheme		No	High
#2.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025	No	High
#3.	Document				

		Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025	No	High
#4.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025	No	High

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 05 – Sunwater's Environmental Policy.pdf Sunwater's Environmental Policy		No	High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025	No	High
#2.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025	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	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025		High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf	09/06/2025		High

Preliminary Aquatic Ecology Impact and Mitigation Assessment

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	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025		High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025		High

4.1.4.8 (Threatened Species and Ecological Communities) Why you think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		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	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025		High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025		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 Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High
#2.	Document Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025		High
#3.	Document Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025		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	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High

4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 04 - Terrestrial MNES Assessment Report (Referral 2).pdf Terrestrial MNES Assessment Report	29/05/2025		High
#2.	Document	Attachment 06 – Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 2.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment Appendices	09/06/2025		High
#3.	Document	Attachment 06– Preliminary Aquatic Ecology Impact and Mitigation Assessment Part 1.pdf Preliminary Aquatic Ecology Impact and Mitigation Assessment	09/06/2025		High

4.1.8.3 (Great Barrier Reef) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 05 – Sunwater's Environmental Policy.pdf Sunwater's Environmental Policy			High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	54169579275
Organisation name	EPIC ENVIRONMENTAL PTY LTD
Organisation address	Level 17, 95 North Quay, Brisbane, QLD 4000
Representative's name	Romin Nejad
Representative's job title	General Manager
Phone	0403116766
Email	rnejad@epicenvironmental.com.au
Address	L17, 95 North Quay, Brisbane

☑ 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, **Romin Nejad of EPIC ENVIRONMENTAL 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	17020276523
Organisation name	Sunwater Limited
Organisation address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006
Representative's name	Mal Shepherd

Representative's job title	Chief Development Officer
Phone	07 3120 0232
Email	mal.shepherd@sunwater.com.au
Address	Green Square North Level 9, 515 St Pauls Terrace Fortitude Valley, Queensland 4006

☑ 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, **Mal Shepherd of Sunwater Limited**, 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.

Same as Person proposing to take the action information.

☑ 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, **Mal Shepherd of Sunwater Limited**, 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. *