Sludge receival at WTP 115E and 85W lagoons

Application Number: **03249** Commencement Date: **02/12/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Sludge receival at WTP 115E and 85W lagoons

1.1.2 Project industry type *

Waste Management (sewerage)

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

02/03/2026

1.1.4 Estimated end date *

30/04/2036

1.2 Proposed Action details

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

The proposed action is located at the Western Treatment Plant (WTP) within the Victorian suburb of Cocoroc, approximately 40 km southwest of the Melbourne Central Business District (CBD) and within the Wyndham City Municipality.

The action will include the acceptance of Thickened Activated Waste Sludge (TWAS) at WTP, to be disposed by unloading into two existing operational lagoons at the plant – 115E and 85W lagoons. The action proposes to accept approximately 20T of TWAS per day during weekdays (Monday to Friday). The proposed action will involve the following activities during construction and operation:

- Construction:
  - A new weighbridge,
  - Two sludge unloading areas, one at 115E and the other 85W lagoons, suitable for 40T trucks.
- Operation:
  - Approximately 20 trucks per day transporting sludge to WTP along existing access tracks, primarily 160 S Road,
  - Unloading of TWAS at 115E and 85W lagoons. TWAS will be handled by an excavator and hosed into the lagoons,
  - Water quality monitoring within the lagoons and discharge points to Port Phillip Bay.

The construction of the two unloading areas will require removal of vegetation, primarily exotic vegetation at 85W and Tall Marsh EVC at 115E. The Tall Marsh EVC provides suitable habitat to MNES, mainly Growling Grass Frog (*Ranoidea raniformis*), Australasian Bittern (*Botaurus piciloptilus*) and Latham's Snipe (*Gallinago hardwickii*).

Acceptance of waste sludge will also change the water quality which may impact migratory waterbirds that occupy the downstream sections of the lagoon treatment systems of 115E and 85W.

Refer to Sections 3.2.4, 5.1 and Appendix F in the Detailed Ecology Report (Attachment 1) for assessed impacts to MNES by the proposed action.

The new weighbridge as well as sludge transportation routes are unlikely to result in an impact to MNES as these activities will be undertaken on existing access tracks and cleared areas. Additionally, sludge transportation will occur during daytime hours only and therefore unlikely to impact nocturnal fauna activities such as roosting, movements/dispersal or breeding calls.

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

No

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

Refer to Table 1 in the Detailed Ecology Report (Attachment 1).

Environment Protections Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act* (EPBC Act) protect Matters of National Environmental Significance (MNES) including world heritage properties, national heritage places, Ramsar wetlands, commonwealth marine areas, threatened species, ecological communities, and migratory species.

The following MNES are relevant to the proposed action:

Growling Grass Frog (*Ranoidea raniformis*)

Growling Grass Frog is listed as Vulnerable under the EPBC Act.

Approximately 0.285 ha of Growling Grass Frog terrestrial habitat is proposed for removal at 115E. This meets the impact threshold criteria for Growling Grass frog as outlined in DEWHA's *Significant impact guidelines for the vulnerable growling grass frog (Litoria raniformis)* (2009). Growling Grass Frog aquatic habitat is also located along drainage lines and channels parallel to 160 S Road which will be used as access routes by trucks transporting TWAS.

Australasian Bittern (*Botaurus poiciloptilus*)

Australasian Bittern is listed as Endangered under the EPBC Act.

Approximately 0.285 ha of suitable habitat for the Australasian Bittern will be removed at 115E. Suitable habitat is also located along drainage lines and channels parallel to 160 S Road, which will be used as access routes by trucks transporting TWAS as well as parts of the lagoon system.

Latham's Snipe (*Gallinago hardwickii*)

Latham's Snipe is listed as Migratory and Vulnerable under the EPBC Act.

Approximately 0.285 ha of suitable habitat for the Latham's Snipe will be removed at 115E. Suitable habitat is also located along drainage lines and channels parallel to 160 S Road, which will be used as access routes by trucks transporting TWAS as well as parts of the lagoon system.

Australian Painted Snipe (*Rostratula australis*).

Australian Painted Snipe is listed as Endangered under the EPBC Act.

No suitable habitat was identified within the boundaries of the proposed action, with suitable habitat identified more than 400m away from the Construction Footprint.

EPBC Act-listed migratory bird species

The following EPBC Act-listed migratory bird species have previously been recorded present in Lagoon 115E and 85W which are located directly downstream of the proposed action:

- Common Greenshank (*Tringa nebularia*)
- Common Sandpiper (*Actitis hypolecucos*)
- Curlew Sandpiper (*Callidris ferruginea*)
- Double-banded Plover (*Charadrius bicinctus*)
- Latham's Snipe
- Little Tern (*Sterna albifrons*)
- Marsh Sandpiper (*Tringa stagnatilis*)
- Pectoral Sandpiper (*Calidris melanotos*)
- Red-necked Phalarope (*Phalaropus lobatus*)
- Red-necked Stint (*Calidris ruficollis*)
- Sharp-tailed Sandpiper (*Calidris acuminata*)

- White-winged Black Tern (*Chlidonias leucopterus*)
- Wood Sandpiper (*Tringa glareola*).

Additional species that have been recorded in the wider lagoon systems at WTP include:

- Arctic Jaeger (*Stercocarius parsiticus*)
- Australian Painted Snipe
- Bar-tailed Godwit (*Limosa lapponica*)
- Black-tailed Godwit (*Limosa limosa*)
- Broad-billed Sandpiper (*Limicola falcinellus*)
- Caspian Tern (*Sterna caspia*)
- Common Tern (*Sterna hirundo*)
- Crested Tern (*Sterna bergii*)
- Eastern Curlew (*Numenius Arquata*)
- Gull-billed Tern (*Gelochelidon nilotica macrotarsa*)
- Long-toed Stint (*Calidris subminuta*)
- Oriental Pratincole (*Glareola maldivarum*)
- Pacific Golden Plover (*Pluvialis fulva*)
- Red Knot (*Calidris canutus*)
- Ruff (*Philomachus pugnax*).

Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site

The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula is listed under the Ramsar convention as an internationally recognised important wetland. The proposed action is located within this Ramsar site.

Flora and Fauna Guarantee Act 1998* and *Flora and Fauna Guarantee Amendment Act 2019

The *Flora and Fauna Guarantee Act 1988* (FFG Act) and the FFG Amendment Act provide protection for a wide range of threatened Victorian flora, fauna, and ecological communities.

The following FFG-listed species were identified as occurring or likely to occur within the Construction Footprint of the proposed action

- Growling Grass Frog, listed as Vulnerable under the FFG Act. Terrestrial habitat occurs at 115E and aquatic habitat along drainage lines and channels parallel to the existing access track on 160 S Road (proposed truck route) at the Western Treatment Plant,
- Australasian Bittern, listed as Critically Endangered under the FFG Act. Suitable habitat is located at 115E and along drainage lines and channels parallel to 160 S Road,
- Latham's Snipe, listed as Vulnerable under the FFG Act. Suitable habitat is located at 115E and along drainage lines and channels parallel to 160 S Road,
- Australian Painted Snipe, listed as Critically Endangered under the FFG Act. Suitable habitat is located more than 400m

No FFG Act-listed flora or ecological communities occur or are likely to occur within the footprint of the proposed action. An FFG Act permit to take protected flora will not be required for the proposed action.

FFG Act-listed waterbirds have been recorded in lagoons located downstream of the proposed action. Refer to Appendix D of Attachment 1 for the likelihood of occurrence for FFG-listed species.

Environment Effects Act 1978

The *Environment Effects Act 1978* (EE Act) provides for assessment of proposed projects that can have a significant effect on the environment. This includes potential impacts to ecological, heritage, cultural and social values. The EE Act enables the Minister administering the EE Act to decide whether an Environment Effects Statement (EES) should be prepared.

The proposed action is unlikely to trigger an EES referral.

Planning and Environment Act 1987

The *Planning and Environment Act 1987* (P&E Act) is the primary legislation that governs land use and development in Victoria. The P&E Act is administered by each local council through controls established in their respective planning schemes.

A permit would be required to remove native vegetation under Clause 52.17 of the local planning scheme unless an exemption for a planning permit applies.

Catchment and Land Protection Act 1994

The *Catchment and Land Protection Act 1994* (CaLP Act) set Victoria's objectives for the integrated management and protection of catchments, including control of noxious weeds and pest animals.

Under the provisions of the CaLP Act, noxious weeds and pest animals are required to be controlled and a permit needs to be sought to remove or sell soil, sand, gravel, or stone which contain or is likely to contain any part of a noxious weed, or which comes from land on which noxious weeds grow.

Reasonable precautions are required to ensure that during construction all vehicles and equipment are free from seeds of any noxious weed to avoid their dispersion.

A permit would be required to remove soil contaminated by seeds and propagules of declared noxious weeds.

Wildlife Act 1975

The *Wildlife Act 1975* establishes a framework for management of wildlife throughout the State, including the management of State Wildlife Reserves and Nature Reserves and provisions for licenses to manage wildlife. Wildlife under the act includes any indigenous animal.

A wildlife licence may be issued to 'take' wildlife for the purposes of the management, conservation, protection, or control of wildlife. For the purposes of delivery, where tree or potential habitat removal is required, a wildlife handler possessing a wildlife licence should be engaged for preclearance check to manage, capture, and release any wildlife found during vegetation clearance.

A wildlife handler with Management Authorisation under the *Wildlife Act 1975* would be required to capture and relocate any native fauna that maybe harmed or killed during construction.

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. *

WTP Biodiversity Conservation Advisory Committee (BCAC) – Tuesday, 5 August 2025

Attendees of the BCAC include representatives from Victorian government agencies (Department of Environment, Energy and Climate Action (DEECA), Parks Victoria, Department of Justice and Arthur Rylah Institute) as well as specialised ecologists, academics and environmental interest groups.

The consultation included an overview of the proposed action, avoidance and mitigation options, as well as impacts to biodiversity values from truck movement and contaminants.

Minutes of the meeting have been provided (Attachment 2).

EPBC assessment/referral meeting – Thursday, 9 October 2025

A meeting was held between Melbourne Water and proposed action representatives with DEECA and leading Victorian ornithologists.

The meeting presented and overview of the proposed action, key values that may potentially be impacted by the action, location alternatives, and key concerns and considerations. Key concerns raised included potential impacts to MNES from a change in water quality, where it was confirmed that nutrient levels have historically shown a benefit to avian fauna at WTP.

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.

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

☑ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	81945386953
Organisation name	MELBOURNE WATER CORPORATION
Organisation address	990 La Trobe Street, Docklands VIC 3008

Referring party details

Name	Ryan MacManus
Job title	Senior Environment Advisor
Phone	0476409774
Email	ryan.macmanus@melbournewater.com.au
Address	990 La Trobe St, Docklands VIC 3008

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? *

Yes

Person proposing to take the action organisation details

ABN/ACN	81945386953
Organisation name	MELBOURNE WATER CORPORATION
Organisation address	990 La Trobe Street, Docklands VIC 3008

Person proposing to take the action details

Name	Ryan MacManus
Job title	Senior Environment Advisor
Phone	0476409774
Email	ryan.macmanus@melbournewater.com.au
Address	990 La Trobe St, Docklands VIC 3008

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. *

Melbourne Water's Environment Policy (Attachment 4) supports Our Strategic Direction and formalises Melbourne Water's commitment to managing environmental risk and links our programs to relevant Government policy platforms such as Melbourne 2030 (Department of Infrastructure, 2002). Melbourne Water's Environmental Management System is based on the International Standard AS/NZS ISO 14001:2004 and makes reference to our 'Integrated Management System Manual'. Melbourne Water's Integrated Management System manual sets out to combine, where possible, the common elements of Quality, Safety, Environment and Public Health, and Product Quality Management Systems (including risk management). It outlines the minimum requirements for Melbourne Water to achieve its vision of "Enhancing Life and Liveability" by, providing safe and high quality products and services to our customers, enhancing the value of our natural and cultural assets, and a commitment to achieve zero harm in the workplace, where the safety of people is paramount and people can count on a healthy safe and supportive work environment.

The establishment and maintenance of the Environmental Management System underpin Melbourne Water's commitment to continual improvement in environmental performance.

In addition to the EMS, WTP maintains a Risk Management and Monitoring Plan (RMMP), an operational control document required in the plant's Operating Licence administered under the *Environment Protection Act 2017* (EP Act). It provides a structured, site-specific framework for identifying, assessing, and controlling environmental risks associated with WTP's operations. The RMMP ensures WTP's operational compliance with the General Environmental Duty under the EP Act and licence conditions for managing risks such as untreated wastewater spills, odour emissions, lagoon leaks, biosolids leaching, and storage capacity issues.

Melbourne Water provides annual Sustainability Reports detailing its performance, which are published on the corporation's website. Melbourne Water further provides ongoing monitoring and reporting of listed species and water quality to the Department of the Environment and Energy under existing audit requirements (EPBC 2002/688, EPBC 2008/3960, EPBC 2008/4221 and EPBC 2011/5992).

During 2000/01 Melbourne Water received two Penalty Infringement Notices for litter and odour related to the discharge of effluent to Bass Strait from the Eastern Treatment Plant, Carrum, Victoria.

During 2005/06 Melbourne Water received two Penalty Infringement Notices for pollution and late notification related to a failure of a sludge supernatant pump at the Eastern Treatment Plant.

An aluminium sulphate (alum) leak from the Winneke Water Treatment Plant to Sugarloaf Creek at Christmas Hills was identified and contained in November 2005. The cause was a leaking chemical pipeline that went undetected because it was within a wall cavity at the plant. The leak is likely to have occurred for many weeks before being noticed and resulted in a blue colouration to the creek water and a small number of dead fish in Watsons Creek. EPA Victoria Issued a Clean-Up Notice for this incident.

In 2005/06 fluorosilicic acid (a liquid form of fluoride) from the Cardinia Water Treatment Plant was lost to Cardinia Creek at Beaconsfield. The cause was a leaking chemical pipeline within a part of the plant that was out of service at the time of the incident. The leak occurred intermittently over a period of three weeks before it was identified and stopped. Inspection of the creek revealed no evidence of fish deaths.

These two offences were heard together in the Magistrates Court on 29 August 2007 with both found proven without a conviction recorded against Melbourne Water. Melbourne Water was required to make contributions to an environmentally relevant community project totalling $150,000 and had to pay for the EPA Victoria's technical reports and its legal costs.

In 2006/07 Melbourne Water was issued a Pollution Abatement Notice to manage the remediation of the Dandenong Wastewater Treatment Plant. Melbourne Water inherited this plant from a previous organisation. The remediation work has now been completed.

In 2023/12 Melbourne Water received an Environmental Action Notices from EPA Victoria to immediately remove contaminated liquids that had entered a Melbourne Water asset. The contaminated liquid consisted of fire water from an industrial fire external to Melbourne Water operations. The contaminated liquid had been removed from the Melbourne Water asset and the notice was revoked by EPA.

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

Melbourne Water's Environmental Policy is provided in Attachment 4 – Environment Policy.

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	81945386953
Organisation name	MELBOURNE WATER CORPORATION
Organisation address	990 La Trobe Street, Docklands VIC 3008

Proposed designated proponent details

Name	Ryan MacManus
Job title	Senior Environment Advisor
Phone	0476409774
Email	ryan.macmanus@melbournewater.com.au
Address	990 La Trobe St, Docklands VIC 3008

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	81945386953
Organisation name	MELBOURNE WATER CORPORATION
Organisation address	990 La Trobe Street, Docklands VIC 3008
Representative's name	Ryan MacManus
Representative's job title	Senior Environment Advisor
Phone	0476409774
Email	ryan.macmanus@melbournewater.com.au
Address	990 La Trobe St, Docklands VIC 3008

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.

Same as Referring party information.

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

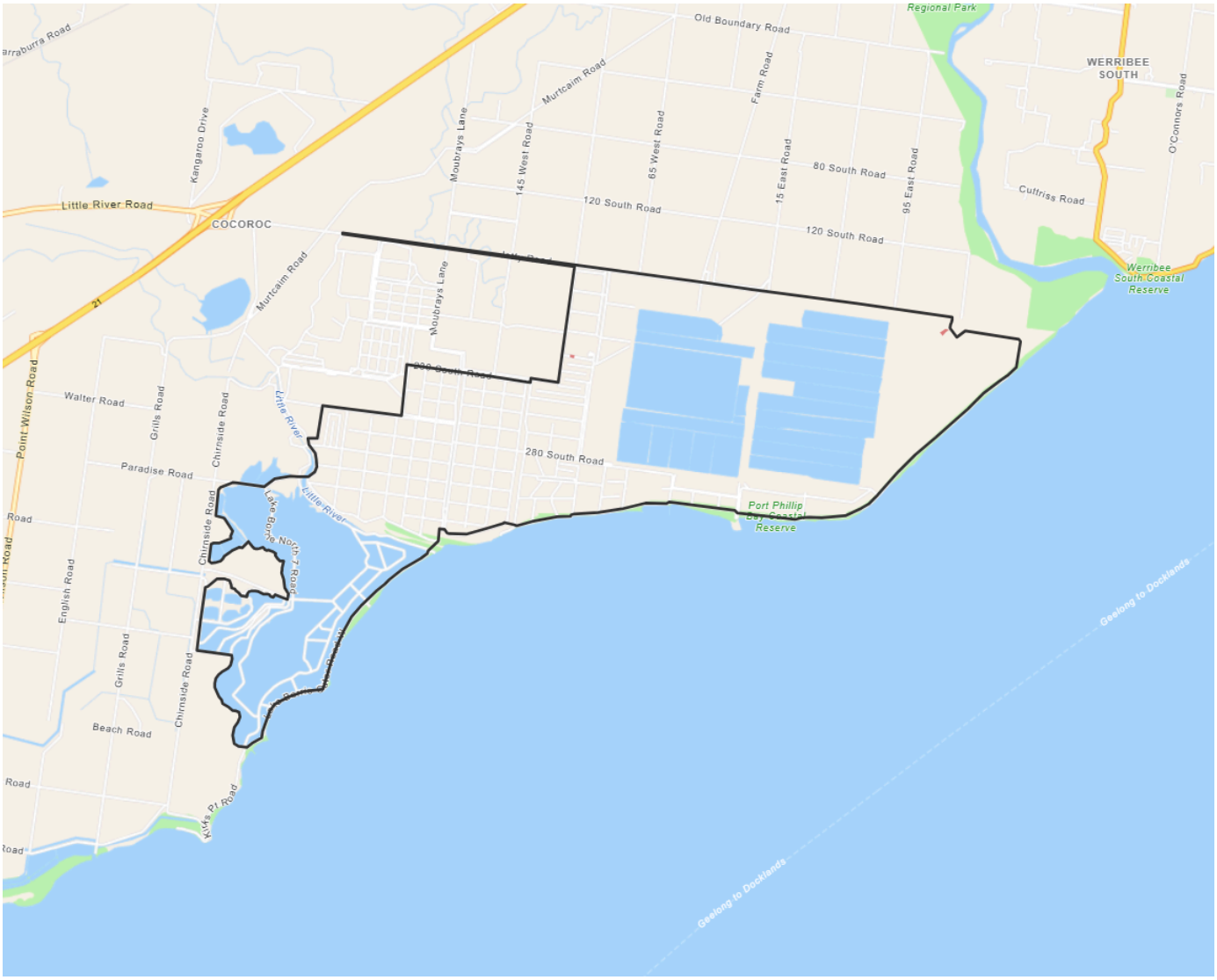
1.4 Payment details: Payment allocation

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: 2329.83 Ha **Disturbance Footprint:** 0.60 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Western Treatment Plant, Metropolitan Farm Road, Cocoroc Victoria 3030

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

Victoria

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 Western Treatment Plant is freehold land, operated by Melbourne Water. The land parcels are:

- 1-7\TP857854
- 10\TP857854
- 12\TP857854
- 14-22\TP857854
- 24\TP857854
- 26\TP857854
- C~4PP2401
- 1~20\PP2401
- 3~11\PP2401
- 1\TP835882
- 1~6\TP966485
- 1-2\TP393775
- 1-2\TP747468

3. Existing environment

3.1 Physical description

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

The Western Treatment Plant, located 35 km southwest of the Melbourne CBD receives approximately 60% of Melbourne's sewerage. It is within land zoned PUZ1 within the Wyndham City Council Planning Scheme. PUZ under the planning scheme recognises *public land use for public utility and community services and facilities*, with PUZ1 designated for Service and Utility public land use purposes.

Western Treatment Plant provides an essential service that protects public health as well as surrounding environments, waterways and Port Phillip Bay. The Western Treatment Plant represents a key part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site.

The Construction Footprint is spread across two locations covering approximately 0.425ha. 115E Construction Footprint is approximately 0.285ha and is located in an open grassy area that is highly modified and adjoins the 115E lagoon, gravel tracks and open grassy areas. There are no water bodies within the Construction Footprint, although a narrow human-constructed swale that extends beyond the Construction Footprint is present. 85W Construction Footprint is approximately 0.14 ha and is also situated within an open grassy area that is highly modified. It adjoins Lagoon 85W. There are no waterbodies within the Construction Footprint. During construction and operation, truck movements will be restricted to existing access tracks within the plant operational area, primarily along 160 S Road and access tracks leading to the weighbridge and 115E and 85W.

The lagoons at the Western Treatment Plant that will receive TWAS (i.e. 115E and 85W) are human-constructed and highly modified.

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

The proposed action will utilise land at Western Treatment Plant that is designated under the planning scheme for the purpose of public use for services and utilities. The treatment plant began operation in 1897 with the current lagoon treatment systems installed from 1986. This has resulted in a highly modified landscape within the construction footprints due to historic and ongoing operations.

Due to existing operations of the treatment plant, accessibility of the site to the public is limited, with access restricted primarily to bird-watching conservation areas located downstream of the proposed action.

Despite the long history of the Western Treatment Plant and operational influence on surrounding biodiversity values, the broader treatment plant has been recognised for its importance to native wildlife since 1921 and declared a Ramsar site in 1982.

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

The proposed action is located across degraded and modified areas at the Western Treatment Plant.

The Detailed Ecology Assessment (KBR 2025) (refer to Section 3.2, Attachment 1) provides a description of the natural features and describes the Construction Footprint at the Western Treatment Plant. The proposed action is within a functioning part of the sewage treatment plant that has also been heavily modified and dominated by exotic vegetation at both 115E and 85W, as well as the native Common Reed (*Phragmites australis*) at 115E. A constructed swale runs adjacent to a gravelled access track and treatment lagoon 115E, which intersects the Construction Footprint of 115E. The lagoon system downstream of the sites are constructed lagoons that form part of the existing treatment process for incoming sewage. Treated sewage effluent is then discharged into the bay from a number of outfalls along the bay.

The Western Treatment Plant and their treatment lagoons represent a key part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site. Recognised in its important role for migratory shorebirds, the Western Treatment Plant also provides important habitat for Growling Grass Frog (*Ranoidea raniformis*), Australasian Bittern, Latham's Snipe, and Australian Painted Snipe, as well as migratory bird species which are all listed under the EPBC Act. The proposed action will impact a small area of terrestrial habitat suitable for threatened species such as the Growling Grass Frog identified in the ecological assessment at Western Treatment Plant. Downstream impacts on lagoon water quality from the addition of TWAS at 115E and 85W are likely to be minimal.

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

Across the Construction Footprint, land is low-lying and flat with minimal relief. At Western Treatment Plant, a narrow swale intersects the Construction Footprint at 115E which supports Common Reed, whereas the surrounding areas are dominated by non-native exotic vegetation.

Sewage and TWAS from the proposed action enters through a series of treatment lagoons that feed into Port Phillip Bay.

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.

A Detailed Ecology Assessment has been completed for the proposed action and is attached to this referral (KBR 2025) – Attachment 1. The Construction Footprint for the proposed action is relatively small, covering 0.56ha across two sites.

The Construction Footprint for 85W is highly degraded and dominated by exotic grasses while the entire Construction Footprint for 115E, approximately 0.285ha, was dominated by native Common Reed (*Phragmites australis*) which is typical for Tall Marsh (EVC 821). Tall Marsh EVC is generally comprised of a treeless ecosystem with no standing water. No native herbs were recorded within the patch, instead weeds were recorded present within the understorey throughout, including Artichoke Thistle (*Cynara cardunculus*), Spiny Rush (*Juncus acutus*) and Coastal Galenia (*Aizoon pubescens*).

At WTP, the Construction Footprint for 115E and 85W supported similar habitats to the surrounding landscape. The Construction Footprints are characterised as open grassy areas (albeit highly degraded) and provide foraging opportunities for common native and exotic fauna. During the site assessment Superb Fairywren (*Malurus cyaneus*), Silver Gull (*Larus novaehollandiae*), Indian Myna (*Acriodotheres tristis*), Australasian White Ibis (*Threskiornis Molucca*), Australian Magpie (*Gymnorhina tibicen*) and Common Starling (*Corvus mellori*) were recorded.

The following EPBC Act-listed fauna were identified in the Detailed Ecology Assessment, either within the Construction Footprint or downstream of the proposed action in the treatment plant's lagoon systems:

- Growling Grass Frog
- Australasian Bittern
- Latham's Snipe
- Australian Painted Snipe
- Migratory birds

WTP supports an important population of Growling Grass Frog. Annual monitoring of Growling Grass Frog populations has been occurring at the treatment plant since 2010 (EHP 2023) and has shown consistent occupation by the species at 37 monitored sites. Two of these sites are located close to the 115E Construction Footprint: 115E borrow pit located approximately 500 m east of the Construction Footprint, and 35E conservation pond located approximately 2 km south-west.

Terrestrial habitat for Growling Grass Frog was identified within the 115E Construction Footprint occupying 0.285 ha and consisting of Tall Marsh EVC. This habitat was considered potential dispersal and overwintering habitat for the nearby populations of Growling Grass Frog. Suitable overwintering habitat for Growling Grass Frog is considered to be dense vegetation in moist areas, such as under rocks and logs, close to breeding habitat (DEWHA 2009); whilst the narrow swale may be used by the species for dispersal.

Targeted surveys for Growling Grass Frog were completed on 8 November 2025, which confirmed their presence within the Construction Footprint of 115E.

Lagoons downstream of the proposed action also have suitable habitat and/or historic records for migratory bird species, as well as EPBC listed Australasian Bittern, Latham's Snipe and Australian Painted Snipe.

The Growling Grass Frog terrestrial habitat also supports suitable habitat for Australasian Bittern, Latham's Snipe and Australian Painted Snipe.

No threatened flora or ecological communities were identified within the Construction Footprint.

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

The Construction Footprint at WTP are located within the Otway Plain bioregion at approximately 5 m above sea level. Native vegetation is confined to the 115E Construction Footprint, where a human-constructed swale is dominated by the native Common Reed. No other native species were identified. Herbaceous weeds are scattered throughout the swale including Artichoke Thistle (*Cynara cardunculus*), Spiny rush (*Juncus acutus*), and Coastal Galenia (*Aizoon pubescens*). Vegetation was mapped within the swale as aligning with ecological vegetation class (EVC) Tall Marsh (EVC 821). The EVC is considered 'depleted' within the Otway Plain and does not align with any threatened ecological community listed under the EPBC Act or the Victorian FFG Act. The upper banks of the swale and adjoining areas were dominated by exotic grasses such as Kikuyu Grass (*Cenchrus clandestinum*) and Toowoomba Canary Grass (*Pharlaris aquatica*) which are likely to be regularly mown.

No native vegetation was recorded at the 85W Construction Footprint. It was found to be dominated by the noxious weeds such as Galenia (*Aizoon pubescens*), Arican Box Thorn (*Lycium ferocissimum*) and Brassica (*Brassica* sp.).

There are no significant areas of native vegetation surrounding any the Construction Footprint at 115E and 85W.

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.

No World, Commonwealth or National Heritage Places will be impacted by the proposed action. The closest heritage place of significance to the proposed action is Point Cook Air Base, which is 9.5 km northeast of the Construction Footprint at Western Treatment Plant.

There are no heritage places subject to a Heritage Overlay (HO) under the Wyndham Planning Scheme located within the Construction Footprint.

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

At WTP, the proposed action is within the boundaries of the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC), the Registered Aboriginal Party.

The Construction Footprint is within an area of cultural heritage sensitivity as identified under the Victorian *Aboriginal Heritage Regulations 2018*. A heritage Due Diligence Assessment (Attachment 5) was completed by Melbourne Water for the proposed action. Despite the proposed action being categorised as a high impact activity under the regulation, the area has been subject to extensive and repeated significant ground disturbance over more than a century of the treatment plant's operation and is therefore removed from statutory sensitivity under clause r.4. Therefore, a Cultural Heritage Management Plan is not required for the proposed action.

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. *

The proposed action will occur across land that is relatively flat and low-lying with no noticeable waterbodies. The 115E Construction Footprint has a human-constructed swale that was damp but did not support any standing water at the time of the site assessment. The swale drains into a table drain running parallel to 95E Road. The nearest waterbodies of significance to the Construction Footprint are the Werribee River, Lollypop Creek and Little River, all located between 1.5 and 5 km from the Construction Footprints. In addition, the Western Treatment Plant forms part of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site. Some of the nearby treatment lagoons (but not those receiving the biosolids) are listed by DEECA as ‘Current Wetlands’, none of which are listed as Nationally Important Wetlands.

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	Yes	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

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

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

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

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

No

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

No heritage places listed on the World Heritage List are located within or adjacent to the proposed action.

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. *

No heritage places listed on the National Heritage List are located within or adjacent to the proposed action.

4.1.3 Ramsar Wetland

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

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

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

Direct impact	Indirect impact	Ramsar wetland
Yes		Port Phillip Bay (Western Shoreline) and Bellarine Peninsula

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

Yes

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

The proposed action is located within the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site (the Ramsar site).

The Ramsar site is comprised of six separate areas:

- Point Cook/Cheetham
- Werribee/Avalon
- Point Wilson/Limeburners Bay
- Swan Bay
- Mud Islands
- Lake Connewarre Complex.

The proposed action will occur within the Werribee/Avalon section of the Ramsar site.

The Ecological Character Description describes the priority ecology values for the Ramsar site (DCEEW 2020), whilst the Site Management Plan describes which of these values are present at the Western Treatment Plant (DELWP 2018) which are:

- Hydrology (including connectivity)
- Intertidal flats
- Seagrass
- Coastal saltmarsh
- Freshwater aquatic vegetation
- Waterbird diversity and abundance
- Waterbird breeding
- Diversity and abundance of fish
- Threatened species: Australasian bittern
- Threatened species: beach nesting birds
- Threatened species: shorebirds
- Threatened species: orange bellied parrot
- Threatened species: growling grass frog
- Threatened species: Australian grayling.

The proposed action will have a direct impact on Growling Grass Frog terrestrial habitat, resulting in the permanent removal of 0.285ha of Tall Marsh EVC for the construction and operation of 115E. Suitable habitat within the extent of Tall Marsh EVC also provides suitable habitat for Australasian Bittern and Latham's Snipe.

The acceptance and treatment of TWAS at WTP will result in water quality changes within the lagoon treatment system, primarily an increase in nutrient levels which may influence waterbird diversity and abundance.

Seagrass located within Port Phillip Bay may be indirectly impacted by the proposed action due to water quality changes at the discharge points from the treatment plant.

All other priority ecological values listed in the Site Management Plan (DELWP 2018) are not likely to be impacted by the proposed action.

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

No

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

The proposed action is unlikely to have a significant impact on Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site. The landscape within the proposed construction footprints has been substantially modified and degraded, while the downstream receptors consist of the existing operational areas of the treatment plant. An assessment against the significant impact guidelines for wetlands of international importance is detailed in Appendix F of Attachment 1.

The Ecological Character Description for the Ramsar site defines limits of acceptable change (LAC) for the priority values (DCCEEW 2020). The proposed action has been assessed against the LACs and impact are described below.

Vegetation – seagrass

Seagrass extent is unlikely to be impacted by the proposed action as concentrations of contaminants are within historical ranges (with exception to TKN) and not expected to significantly increase at the discharge point. Higher loads of TKN entering Port Phillip Bay are expected, however these analytes are not considered a risk for seagrass. Reduction in nutrients rather than an increase has been specifically mentioned as a risk to the ecological character of the Ramsar site (Hale, 2020).

Waterbird abundance and diversity

Water quality changes are unlikely to have a significant impact to waterbird abundance and diversity. The expected increase in nutrient loads may be beneficial to waterbirds as increasing nutrient loads rather than absent or low concentrations have historically reported greater waterbird presence (Loyn et al., 2023). Impacts to waterbirds from other contaminants are uncertain, however, it is expected that the lagoon system will provide effective treatment and therefore concentrations are unlikely to significantly increase as identified in the water quality assessment (refer to Attachment 3). Additionally, the existing operational parts of the treatment plant presents a similar contamination risk profile which hosts a large diversity of waterbirds of various population sizes. Therefore, it can be inferred that the current and historical concentration of contaminants within the water presents a low risk to this fauna group.

Threatened species – waterbirds

Removal of suitable habitat for Australasian Bittern will not have a significant impact on the species presence at WTP. The suitable habitat consists of 0.285ha of foraging habitat. This is a relatively small area in comparison to the 43ha of potentially available habitat at WTP.

Threatened species – Growling Grass Frog

The LAC for Growling Grass Frog at Western Treatment Plant is > 200 Growling Grass Frogs in 3 out of 5 years. The proposed action is unlikely to change the Growling Grass Frog breeding and population size and therefore should not exceed the LAC. Therefore, direct impacts of 0.285ha within the Construction Footprint is unlikely to be significant.

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

No

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

The proposed action is unlikely to be a controlled action, due to the location being in a highly modified and degraded area. Suitable habitat for removal consists of dispersal and foraging habitat, not breeding habitat, and is a relatively small area when compared to adjoining available habitat of similar quality. Impacts to priority ecological values are relatively minor and will not exceed the LAC defined in the ecological character description (DCCEEW 2020). Additionally, assessment of the proposed action against the significant impact criteria for wetlands of international importance are unlikely to be met.

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

Avoid and Minimise

Planning investigation options for the proposed action were undertaken by Melbourne Water through engagement with consultants and design engineers. The proposed Construction Footprints utilise the smallest available footprint to allow for the construction and operation of unloading areas for TWAS at the treatment plant. The Construction Footprint allows for truck turning points during TWAS delivery and unloading, as well as facility for handling and washing of sludge. Areas that could potentially avoid impact of suitable habitat for threatened species were investigated, however limited accessibility or the presence of existing operational structures had confirmed their unsuitability and therefore the proposed Construction Footprints were determined to be the only suitably practicable option.

The proposed action utilises existing access tracks for haulage during construction and operation, thereby minimising further impacts to MNES from the construction of new transport routes.

Alternative disposal options for TWAS were also investigated to avoid the need of the proposed action, however the treatment of sludge at WTP were considered the most feasible and practical disposal pathway due to the suitability of the plant's existing operational treatment processes for similar sewage waste types. Other disposal pathway options typically required disposal to landfill or treatment with third-party operators and was found to be cost prohibitive and less sustainable.

The following controls will be implemented to avoid and minimise impacts to MNES.

Construction:

- Information on sensitive ecological values that may be encountered during works to be included in the Construction Environmental Management Plan, pre-start checklists and site inductions.
- Noisy construction works and machinery use at nighttime will be avoided during Growling Grass Frog active period (November – March), as it may otherwise interfere with breeding call activity.
- Removal of suitable terrestrial habitat and construction to occur during the Growling Grass Frog active season in October to February as recommended in the WTP Growling Grass Frog management plan (Ecology and Heritage Partners 2023).
- An experienced zoologist on site to supervise works (i.e. inspect Growling Grass Frog barriers/fencing) and to salvage any Growling Grass Frog within the construction footprint prior to works.
- Fencing and barriers around the construction site and No-Go Zones prior to salvage works commencing, following the protocols outlined in WTP's overarching Growling Grass Frog management plan. This will also help prevent unintended clearing or disturbance of terrestrial habitat for Growling Grass Frog, Australasian Bittern and Latham's Snipe outside of the Construction Footprint at Lagoon 115E.
- Erosion and sedimentation are managed to not pose a risk to water quality in surrounding Growling Grass Frog breeding habitat, as well as foraging habitat for Australasian Bittern and Latham's Snipe.
- Hygiene protocols are followed in accordance with WTP's Growling Grass Frog management plan to minimise the spread of pest plants and disease (i.e. Chytrid fungus).

Operations:

- Develop an Operations Environmental Management Plan (OEMP) for WTP. The purpose of the OEMP is to ensure that potential changes in water quality during operations does not adversely affect the ecological values of WTP and Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site (such as Growling Grass Frog, threatened and migratory species and the diversity and significant populations of waterbirds associated with WTP). The OEMP will:
    - Be prepared to the satisfaction of the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW)
    - Be completed prior to the commencement of the operations phase of the Project and cover the duration of operations until 12 months post completion

    - List the contaminants that will be monitored within Lagoon 115E, 85W and sensitive receptor sites downstream, and describe the location and frequency of monitoring
    - List the species and species' groups that will be monitored within Lagoon 115E, 85W and sensor receptor sites downstream, and describe the location and frequency of monitoring
    - Establish baseline values for the contaminants, species and species' groups that will be monitored, and trigger levels that if exceeded will initiate a change in management during operations
    - Develop a hierarchy of controls if a trigger value is exceeded for any monitored contaminant or ecological value, including timing, responsibility and notifications to regulators (if required).
- An annual report will be prepared for the duration of the OEMP that will include the results of the monitoring, list any trigger values that have been exceeded and management changes that have been implemented in response.

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

No offsets are proposed under the EPBC Act Environmental Offsets Policy as the proposed action is not expected to have a significant impact to MNES.

Victorian native vegetation offsets will be secured for the project under the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) for the removal of 0.285ha of Tall Marsh EVC.

An offset of 0.0760 General Habitat Units with a minimum strategic biodiversity value of 0.216 within the Melbourne Water managed Port-Phillip and Westernport CMA or Wyndham City Council.

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		Amphibromus fluitans	River Swamp Wallaby-grass, Floating Swamp Wallaby-grass
Yes		Antechinus minimus maritimus	Swamp Antechinus (mainland)
Yes		Anthochaera phrygia	Regent Honeyeater
Yes		Aphelocephala leucopsis	Southern Whiteface
Yes		Ardenna grisea	Sooty Shearwater
Yes		Arenaria interpres	Ruddy Turnstone
Yes		Botaurus poiciloptilus	Australasian Bittern
Yes		Calidris acuminata	Sharp-tailed Sandpiper
Yes		Calidris canutus	Red Knot, Knot
Yes		Calidris ferruginea	Curlew Sandpiper
Yes		Calidris tenuirostris	Great Knot
Yes		Callocephalon fimbriatum	Gang-gang Cockatoo
Yes		Carcharodon carcharias	White Shark, Great White Shark
Yes		Caretta caretta	Loggerhead Turtle
Yes		Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
Yes		Charadrius mongolus	Lesser Sand Plover, Mongolian Plover
Yes		Chelonia mydas	Green Turtle
Yes		Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
Yes		Delma impar	Striped Legless Lizard, Striped Snake-lizard
Yes		Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth

Direct impact	Indirect impact	Species	Common name
Yes		Dianella amoena	Matted Flax-lily
Yes		Diomedea antipodensis	Antipodean Albatross
Yes		Diomedea epomophora	Southern Royal Albatross
Yes		Diomedea exulans	Wandering Albatross
Yes		Diomedea sanfordi	Northern Royal Albatross
Yes		Diuris basaltica	Small Golden Moths Orchid, Early Golden Moths
Yes		Diuris fragrantissima	Sunshine Diuris, Fragrant Doubletail, White Diuris
Yes		Dodonaea procumbens	Trailing Hop-bush
Yes		Eubalaena australis	Southern Right Whale
Yes		Falco hypoleucos	Grey Falcon
Yes		Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes		Glycine latrobeana	Clover Glycine, Purple Clover
Yes		Grantiella picta	Painted Honeyeater
Yes		Hirundapus caudacutus	White-throated Needletail
Yes		Lachnagrostis adamsonii	Adamson's Blown-grass, Adamson's Blowngrass
Yes		Lathamus discolor	Swift Parrot
Yes		Lepidium aschersonii	Spiny Peppercress
Yes		Lepidium hyssopifolium	Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed
Yes		Leucochrysum albicans subsp. tricolor	Hoary Sunray, Grassland Paper-daisy
Yes		Limosa lapponica baueri	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit
Yes		Limosa limosa	Black-tailed Godwit
Yes		Lissolepis coventryi	Swamp Skink, Eastern Mourning Skink
Yes		Litoria raniformis	Southern Bell Frog, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog
Yes		Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel

Direct impact	Indirect impact	Species	Common name
Yes		Macronectes halli	Northern Giant Petrel
Yes		Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
Yes		Nannoperca obscura	Yarra Pygmy Perch
Yes		Neophema chrysogaster	Orange-bellied Parrot
Yes		Neophema chrysostoma	Blue-winged Parrot
Yes		Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
Yes		Pachyptila turtur subantarctica	Fairy Prion (southern)
Yes		Pedionomus torquatus	Plains-wanderer
Yes		Phoebetria fusca	Sooty Albatross
Yes		Pimelea spinescens subsp. spinescens	Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea
Yes		Pluvialis squatarola	Grey Plover
Yes		Prasophyllum suaveolens	Fragrant Leek-orchid
Yes		Prototroctes maraena	Australian Grayling
Yes		Pterodroma leucoptera leucoptera	Gould's Petrel, Australian Gould's Petrel
Yes		Pteropus poliocephalus	Grey-headed Flying-fox
Yes		Pterostylis chlorogramma	Green-striped Greenhood
Yes		Pterostylis cucullata	Leafy Greenhood
Yes		Rostratula australis	Australian Painted Snipe
Yes		Rutidosis leptorhynchoides	Button Wrinklewort
Yes		Senecio macrocarpus	Large-fruit Fireweed, Large-fruit Groundsel
Yes		Senecio psilocarpus	Swamp Fireweed, Smooth-fruited Groundsel
Yes		Seriolella brama	Blue Warehou
Yes		Stagonopleura guttata	Diamond Firetail
Yes		Sternula albifrons	Little Tern

Direct impact	Indirect impact	Species	Common name
Yes		Sternula nereis nereis	Australian Fairy Tern
Yes		Synemon plana	Golden Sun Moth
Yes		Thalassarche bulleri	Buller's Albatross, Pacific Albatross
Yes		Thalassarche bulleri platei	Northern Buller's Albatross, Pacific Albatross
Yes		Thalassarche carteri	Indian Yellow-nosed Albatross
Yes		Thalassarche cauta	Shy Albatross
Yes		Thalassarche chrysostoma	Grey-headed Albatross
Yes		Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
Yes		Thalassarche melanophris	Black-browed Albatross
Yes		Thalassarche salvini	Salvin's Albatross
Yes		Thalassarche steadi	White-capped Albatross
Yes		Thelymitra orientalis	Hoary Sun-orchid
Yes		Thinornis cucullatus cucullatus	Eastern Hooded Plover, Eastern Hooded Plover
Yes		Tringa nebularia	Common Greenshank, Greenshank
Yes		Tympanocryptis pinguicolla	Victorian Grassland Earless Dragon
Yes		Xenus cinereus	Terek Sandpiper
Yes		Xerochrysum palustre	Swamp Everlasting, Swamp Paper Daisy

Ecological communities

Direct impact	Indirect impact	Ecological community
Yes		Grassy Eucalypt Woodland of the Victorian Volcanic Plain
Yes		Natural Damp Grassland of the Victorian Coastal Plains
Yes		Natural Temperate Grassland of the Victorian Volcanic Plain
Yes		Subtropical and Temperate Coastal Saltmarsh

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. *

The Detailed Ecology Assessment report (KBR, 2025) assessed the likelihood of occurrence for threatened species listed under the EPBC Act, within the proposed action Construction Footprints. Three threatened species listed under the EPBC Act was identified as potentially occurring within the Construction Footprints:

- Growling Grass Frog
- Australasian Bittern
- Latham's Snipe
- Australian Painted Snipe

Of these species, Growling Grass Frog was identified during field surveys. Further information on these protected matters is detailed below.

The following threatened waterbird species have been recorded within Lagoon 115E and 85W, located downstream of the proposed action:

- Australian Painted Snipe
- Australasian Bittern
- Black-tailed Godwit
- Common Greenshank
- Curlew Sandpiper
- Eastern Curlew
- Latham's Snipe
- Little Tern
- Red Knot
- Sharp-tailed Sandpiper.

No other EPBC Act-listed threatened species or ecological communities were considered likely to occur within the Western Treatment Plant Construction Footprints.

Growling Grass Frog

The proposed action will impact approximately 0.285 ha of suitable overwintering and dispersal habitat for Growling Grass Frog at the Western Treatment Plant. The Construction Footprint at 115E is located between two known breeding ponds, one located 500 m to the east and the other 2 km to the south-west. Between both breeding ponds are extensive areas of degraded grassy areas and a low-lying swale that may support aquatic habitat during wetter periods.

Australasian Bittern

The proposed action will directly impact approximately 0.285ha of suitable habitat for Australasian Bittern. The species is likely to occur within 115E Construction Footprint, as well as in channels and drainage lines adjoining 160 S Road. Long-term waterfowl monitoring data also shows Australasian Bittern recorded at the 115E Burrow Pit, located approximately 400m east of the Construction Footprint. Impacts to Australasian Bittern during operations are unlikely as increased nutrients are likely to be beneficial while changes in other contaminant concentrations are expected to not be significant.

Latham's Snipe

The proposed action will directly impact approximately 0.285ha of suitable habitat for Latham's Snipe. The species is likely to occur within the 115E Construction Footprint, as well as in channels and drainage lines adjoining 160 S Road. Long-term waterfowl monitoring data has repeatedly found Latham's Snipe over the past 40 years, majority of which are outside of the operational areas of WTP where the proposed action is to be located. Impacts to Latham's Snipe during operations are unlikely as increased nutrients are likely to be beneficial while changes in other contaminant concentrations are expected to not be significant.

Australian Painted Snipe

Suitable habitat for Australian Painted Snipe is located in two wetlands containing Tall Marsh EVC, approximately 400m north-west and 1km southwest of the Construction Footprint. The Tall Marsh EVC located at 115E has been considered not suitable for Australian Painted Snipe due to the lack of inundated areas. Impacts to Latham's Snipe during operations are unlikely as increased nutrients are likely to be beneficial while changes in other contaminant concentrations are expected to not be significant.

Threatened waterbirds

The proposed action includes the acceptance of TWAS at 115E and 85W, which will be treated within the existing treatment lagoon system. This may change the water quality within Lagoon 115E and 85W, which are inhabited by threatened waterbird species. Change in water quality from the proposed action may impact the above threatened waterbird species.

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

No

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

Significance of impacts from the proposed action was assessed against threatened species that had a moderate to high likelihood of occurrence, in accordance with relevant significant impact guidelines in Appendix F of the Detailed Ecology Assessment report (Attachment 1). The assessment has determined significant impacts to these species were considered unlikely and are outlined below.

Growling Grass Frog

Significant impacts to vulnerable species are assessed only on important populations of that species (DoE 2013). The population of Growling Grass Frog that may utilise the Construction Footprint is considered an important population as defined under both guidelines (DoE 2013, DEWHA 2019), based on the repeated observations of the species at nearby waterbodies and across the Western Treatment Plant during the breeding season (EHP 2023).

The Construction Footprint would impact on a relatively small area of the available dispersal and overwintering habitat between the two breeding ponds, and there is not expected to be any disruption to dispersal and gene flow between the two sub-populations. The Construction Footprint is unlikely to lead to a decrease in habitat connectivity due to the availability of adjoining suitable habitat, approximately 43ha across WTP. The terrestrial habitat is also highly modified and degraded with weeds and invasive species and therefore the proposed action is unlikely to introduce further spread. Therefore, movement of weed or invasive species during construction impacts are unlikely to be significant for this species.

During construction and operation, 160 S Road will be used as a haul road, which Growling Grass Frogs are known to cross at night during the species' breeding period. However, daytime operations will be in effect and therefore the risk of injury or death to Growling Grass Frog from haulage is considered low.

Changes in water quality during operations are unlikely to impact Growling Grass Frog. Growling Grass Frog have been shown to occupy a variety of polluted wetlands across Melbourne and that the proportion of fringing vegetation is of greater importance in predicting species presence.

Australasian Bittern

The proposed action will impact a relatively small portion (0.285ha) of suitable habitat at 115E. There are significant areas (approximately 43ha) of potentially similar or greater contiguous foraging habitat within WTP and therefore the loss of suitable habitat at 115E is unlikely to result in declining population size. Suitable habitat to be impacted is already highly modified and degraded and is unlikely to contribute to the further spread of weeds and invasive species.

Operational activities are unlikely to impact species as haulage routes will utilise existing access tracks, while contaminants (with exception to nutrients) will largely be treated by the existing treatment system. Nutrients are expected to increase with the proposed action however the relationship of nutrients on waterbirds has shown that decreasing as opposed to increasing concentrations are less beneficial to their abundance. Therefore, water quality from the proposed action is unlikely to significantly impact the Australasian Bittern.

Latham's Snipe

Like the Australasian Bittern, the proposed action will impact a relatively small portion (0.285ha) of suitable habitat at 115E. There are significant areas (approximately 43ha) of potentially similar or greater contiguous foraging habitat within WTP and therefore the loss of suitable habitat at 115E is unlikely to result in declining population size. Suitable habitat to be impacted is already highly modified and degraded and is unlikely to contribute to the further spread of weeds and invasive species.

Operational activities are unlikely to impact species as haulage routes will utilise existing access tracks, while contaminants (with exception to nutrients) will largely be treated by the existing treatment system. Nutrients are expected to increase with the proposed action however the relationship of nutrients on

waterbirds has shown that decreasing as opposed to increasing concentrations are less beneficial to their abundance. Therefore, water quality from the proposed action is unlikely to significantly impact the Latham's Snipe.

Australian Painted Snipe

The closest suitable habitat for Australian Painted Snipe is located approximately 400m from 115E and therefore direct significant impacts are unlikely.

Operational activities are unlikely to impact species as haulage routes will utilise existing access tracks, while contaminants (with exception to nutrients) will largely be treated by the existing treatment system. Nutrients are expected to increase with the proposed action however the relationship of nutrients on waterbirds has shown that decreasing as opposed to increasing concentrations are less beneficial to their abundance. Therefore, water quality from the proposed action is unlikely to significantly impact the Australian Painted Snipe.

Threatened waterbirds

It is expected that water quality contaminants during operation of the proposed action will largely be treated by existing treatment processes and will be within historical ranges with the exception of nutrients. Reported relationship between nutrient concentrations and waterbird abundance has shown that lower concentrations of nutrients result in lower abundance and therefore an increase is likely to beneficial (Loyn et al., 2023). Ross et al. (2023) also found negligible difference in pollutant exposure, health and survival for two migratory shorebirds at WTP when compared to natural wetlands. Therefore, it can be inferred that the current and historical concentration of contaminants at WTP is a low risk to threatened waterbird species.

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

No

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

The proposed action will impact on a relatively small area of suitable habitat for threatened species, however, the extent of impact is relatively small (0.285 ha), given the abundance of similar habitat in the adjoining areas (i.e. ≥43 ha). Suitable habitat to be removed by the proposed action does not include breeding habitat. Therefore, the proposed action is unlikely to significantly impact the viability of threatened species due to habitat removal. With regards to water quality, concentration levels of contaminants are expected to be within range of historical levels with exception to an increase in nutrients. However, waterbird studies have reported significant impacts to increasing nutrient levels or pollutants at WTP, with waterbirds reporting a positive relationship to the availability of nutrients. As such, the proposed action is not considered a controlled action.

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. *

Avoid and Minimise

Planning investigation options for the proposed action were undertaken by Melbourne Water through engagement with consultants and design engineers. The proposed Construction Footprints utilise the smallest available footprint to allow for the construction and operation of unloading areas for TWAS at the treatment plant. The Construction Footprint allows for truck turning points during TWAS delivery and unloading, as well as facility for handling and washing of sludge. Areas that could potentially avoid impact of suitable habitat for threatened species were investigated, however limited accessibility or the presence of existing operational structures had confirmed their unsuitability and therefore the proposed Construction Footprints were determined to be the only suitably practicable option.

The proposed action utilises existing access tracks for haulage during construction and operation, thereby minimising further impacts to MNES from the construction of new transport routes.

Alternative disposal options for TWAS were also investigated to avoid the need of the proposed action, however the treatment of sludge at WTP were considered the most feasible and practical disposal pathway due to the suitability of the plant's existing operational treatment processes for similar sewage waste types. Other disposal pathway options typically required disposal to landfill or treatment with third-party operators and was found to be cost prohibitive and less sustainable.

The following controls will be implemented to avoid and minimise impact to threatened species.

Construction:

- Information on sensitive ecological values that may be encountered during works to be included in the Construction Environmental Management Plan, pre-start checklists and site inductions.
- Noisy construction works and machinery use at nighttime will be avoided during Growling Grass Frog active period (November – March), as it may otherwise interfere with breeding call activity.
- Removal of suitable terrestrial habitat and construction to occur during the Growling Grass Frog active season in October to February as recommended in the WTP Growling Grass Frog management plan (Ecology and Heritage Partners 2023).
- An experienced zoologist on site to supervise works (i.e. inspect Growling Grass Frog barriers/fencing) and to salvage any Growling Grass Frog within the construction footprint prior to works.
- Fencing and barriers around the construction site and No-Go Zones prior to salvage works commencing, following the protocols outlined in WTP's overarching Growling Grass Frog management plan. This will also help prevent unintended clearing or disturbance of terrestrial habitat for Growling Grass Frog, Australasian Bittern and Latham's Snipe outside of the Construction Footprint at Lagoon 115E.
- Erosion and sedimentation are managed to not pose a risk to water quality in surrounding Growling Grass Frog breeding habitat, as well as foraging habitat for Australasian Bittern and Latham's Snipe.
- Hygiene protocols are followed in accordance with WTP's Growling Grass Frog management plan to minimise the spread of pest plants and disease (i.e. Chytrid fungus).

Operations:

- Develop an Operations Environmental Management Plan (OEMP) for WTP. The purpose of the OEMP is to ensure that potential changes in water quality during operations does not adversely affect the ecological values of WTP and Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site (such as Growling Grass Frog, threatened and migratory species and the diversity and significant populations of waterbirds associated with WTP). The OEMP will:
    - Be prepared to the satisfaction of the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW)
    - Be completed prior to the commencement of the operations phase of the Project and cover the duration of operations until 12 months post completion

    - List the contaminants that will be monitored within Lagoon 115E, 85W and sensitive receptor sites downstream, and describe the location and frequency of monitoring
    - List the species and species' groups that will be monitored within Lagoon 115E, 85W and sensor receptor sites downstream, and describe the location and frequency of monitoring
    - Establish baseline values for the contaminants, species and species' groups that will be monitored, and trigger levels that if exceeded will initiate a change in management during operations
    - Develop a hierarchy of controls if a trigger value is exceeded for any monitored contaminant or ecological value, including timing, responsibility and notifications to regulators (if required).
- An annual report will be prepared for the duration of the OEMP that will include the results of the monitoring, list any trigger values that have been exceeded and management changes that have been implemented in response.

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

No offsets are proposed under the EPBC Act Environmental Offsets Policy as the proposed action is not expected to have a significant impact to MNES.

Victorian native vegetation offsets will be secured for the project under the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) for the removal of 0.285ha of Tall Marsh EVC.

An offset of 0.0760 General Habitat Units with a minimum strategic biodiversity value of 0.216 within the Melbourne Water managed Port-Phillip and Westernport CMA or Wyndham City Council.

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		Actitis hypoleucos	Common Sandpiper
Yes		Anous stolidus	Common Noddy
Yes		Apus pacificus	Fork-tailed Swift
Yes		Ardenna carneipes	Flesh-footed Shearwater, Fleshy-footed Shearwater
Yes		Ardenna grisea	Sooty Shearwater
Yes		Arenaria interpres	Ruddy Turnstone
Yes		Calidris acuminata	Sharp-tailed Sandpiper
Yes		Calidris canutus	Red Knot, Knot
Yes		Calidris falcinellus	Broad-billed Sandpiper
Yes		Calidris ferruginea	Curlew Sandpiper
Yes		Calidris melanotos	Pectoral Sandpiper
Yes		Calidris pugnax	Ruff
Yes		Calidris ruficollis	Red-necked Stint
Yes		Calidris subminuta	Long-toed Stint
Yes		Calidris tenuirostris	Great Knot
Yes		Caperea marginata	Pygmy Right Whale
Yes		Carcharias taurus	Grey Nurse Shark
Yes		Carcharodon carcharias	White Shark, Great White Shark
Yes		Caretta caretta	Loggerhead Turtle
Yes		Charadrius bicinctus	Double-banded Plover
Yes		Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
Yes		Charadrius mongolus	Lesser Sand Plover, Mongolian Plover

Direct impact	Indirect impact	Species	Common name
Yes		Chelonia mydas	Green Turtle
Yes		Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth
Yes		Diomedea antipodensis	Antipodean Albatross
Yes		Diomedea epomophora	Southern Royal Albatross
Yes		Diomedea exulans	Wandering Albatross
Yes		Diomedea sanfordi	Northern Royal Albatross
Yes		Eubalaena australis	Southern Right Whale
Yes		Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes		Gallinago megala	Swinhoe's Snipe
Yes		Gallinago stenura	Pin-tailed Snipe
Yes		Hirundapus caudacutus	White-throated Needletail
Yes		Lagenorhynchus obscurus	Dusky Dolphin
Yes		Lamna nasus	Porbeagle, Mackerel Shark
Yes		Limosa lapponica	Bar-tailed Godwit
Yes		Limosa limosa	Black-tailed Godwit
Yes		Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel
Yes		Macronectes halli	Northern Giant Petrel
Yes		Megaptera novaeangliae	Humpback Whale
Yes		Motacilla flava	Yellow Wagtail
Yes		Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
Yes		Numenius minutus	Little Curlew, Little Whimbrel
Yes		Pandion haliaetus	Osprey
Yes		Phalaropus lobatus	Red-necked Phalarope
Yes		Phoebetria fusca	Sooty Albatross
Yes		Pluvialis fulva	Pacific Golden Plover
Yes		Pluvialis squatarola	Grey Plover

Direct impact	Indirect impact	Species	Common name
Yes		Sternula albifrons	Little Tern
Yes		Thalassarche bulleri	Buller's Albatross, Pacific Albatross
Yes		Thalassarche carteri	Indian Yellow-nosed Albatross
Yes		Thalassarche cauta	Shy Albatross
Yes		Thalassarche chrysostoma	Grey-headed Albatross
Yes		Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
Yes		Thalassarche melanophris	Black-browed Albatross
Yes		Thalassarche salvini	Salvin's Albatross
Yes		Thalassarche steadi	White-capped Albatross
Yes		Tringa brevipes	Grey-tailed Tattler
Yes		Tringa glareola	Wood Sandpiper
Yes		Tringa nebularia	Common Greenshank, Greenshank
Yes		Tringa stagnatilis	Marsh Sandpiper, Little Greenshank
Yes		Xenus cinereus	Terek Sandpiper

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 following EPBC Act listed migratory species were recorded present in the lagoons located downstream of the proposed action:

- Arctic Jaeger
- Bar-tailed Godwit
- Black-tailed Godwit
- Broad-billed Sandpiper
- Caspian Tern
- Common Greenshank
- Common Sandpiper
- Common Tern
- Crested Tern
- Curlew Sandpiper
- Double-banded Plover
- Eastern Curlew
- Latham's Snipe
- Little Tern
- Long-toed Stint
- Marsh Sandpiper
- Oriental Pratincole
- Pacific Golden Plover
- Pacific Gull
- Pectoral Sandpiper
- Red Knot
- Red-necked Phalarope
- Red-necked Stint
- Ruff
- Sharp-tailed Sandpiper
- White-winged Black Tern
- Wood Sandpiper.

The proposed action includes the acceptance of TWAS at 115E and 85W, which will be treated within the existing treatment lagoon system. This may change the water quality within Lagoon 115E and 85W, which are inhabited by migratory species. Change in water quality from the proposed action may impact the above migratory species.

Additionally, the proposed action includes the removal of vegetation at 115E, approximately 0.285ha of Tall Marsh EVC, to allow for the construction and operation of the unloading of TWAS into 115E lagoon. The removed vegetation may include suitable habitat for some of the migratory species listed above.

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. *

The significance of impacts to migratory species was assessed in the Detailed Ecology Assessment report (Refer to Section 3.2.5, Attachment 1). Based on the findings of the ecology assessment, significant impact to migratory species were considered unlikely.

Vegetation removal within the Construction Footprint provides relatively small amount of potential foraging or layover habitat for some migratory species. Given the abundance of similar habitat of more than 43ha in the adjoining areas, the removal of 0.285ha is unlikely to significantly impact migratory bird abundance.

It is expected that water quality contaminants during operation of the proposed action will largely be treated by existing treatment processes and will be within historical ranges with the exception of nutrients. Reported relationship between nutrient concentrations and waterbird abundance has shown that lower concentrations of nutrients result in lower abundance and therefore an increase is likely to beneficial (Loyn et al., 2023). Ross et al. (2023) also found negligible difference in pollutant exposure, health and survival for two migratory shorebirds at WTP when compared to natural wetlands. Therefore, it can be inferred that the current and historical concentration of contaminants at WTP is a low risk to migratory species.

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

No

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

Potential impacts to migratory species are expected to not be significant. Removal of vegetation that may provide terrestrial habitat is relatively small when compared to adjoining available habitat. Additionally, the terrestrial habitat does not provide critical foraging or breeding habitat for migratory species and is therefore unlikely to contribute to a decline in species abundance. With regards to water quality, concentration levels of contaminants are expected to be within range of historical levels with exception to an increase in nutrients. However, waterbird species have not reported significant impacts to increasing nutrient levels, with waterbirds reporting a positive relationship to the availability of nutrients (Loyn et al., 2023). Additionally, negligible difference was found in pollutant exposure, health and survival for migratory shorebirds at WTP when compared to wetlands (Ross et al. 2023). As such, 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. *

Avoid and Minimise

Planning investigation options for the proposed action were undertaken by Melbourne Water through engagement with consultants and design engineers. The proposed Construction Footprints utilise the smallest available footprint to allow for the construction and operation of unloading areas for TWAS at the treatment plant. The Construction Footprint allows for truck turning points during TWAS delivery and unloading, as well as facility for handling and washing of sludge. Areas that could potentially avoid impact of suitable habitat for threatened species were investigated, however limited accessibility or the presence of existing operational structures had confirmed their unsuitability and therefore the proposed Construction Footprints were determined to be the only suitably practicable option.

The proposed action utilises existing access tracks for haulage during construction and operation, thereby minimising further impacts to MNES from the construction of new transport routes.

Alternative disposal options for TWAS were also investigated to avoid the need of the proposed action, however the treatment of sludge at WTP were considered the most feasible and practical disposal pathway

due to the suitability of the plant's existing operational treatment processes for similar sewage waste types. Other disposal pathway options typically required disposal to landfill or treatment with third-party operators and was found to be cost prohibitive and less sustainable.

The following controls will be implemented to avoid and minimise impact to migratory species.

Construction:

- Information on sensitive ecological values that may be encountered during works to be included in the Construction Environmental Management Plan, pre-start checklists and site inductions.
- Noisy construction works and machinery use at nighttime will be avoided during Growling Grass Frog active period (November – March).
- Fencing and barriers around the construction site and No-Go Zones prior to salvage works commencing, following the protocols outlined in WTP's overarching Growling Grass Frog management plan. This will also help prevent unintended clearing or disturbance of terrestrial habitat for Growling Grass Frog, Australasian Bittern and Latham's Snipe outside of the Construction Footprint at Lagoon 115E.
- Erosion and sedimentation are managed to not pose a risk to water quality in surrounding Growling Grass Frog breeding habitat, as well as foraging habitat for Australasian Bittern and Latham's Snipe.
- Hygiene protocols are followed in accordance with WTP's Growling Grass Frog management plan to minimise the spread of pest plants and disease (i.e. Chytrid fungus).

Operations:

- Develop an Operations Environmental Management Plan (OEMP) for WTP. The purpose of the OEMP is to ensure that potential changes in water quality during operations does not adversely affect the ecological values of WTP and Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site (such as Growling Grass Frog, threatened and migratory species and the diversity and significant populations of waterbirds associated with WTP). The OEMP will:
    - Be prepared to the satisfaction of the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW)
    - Be completed prior to the commencement of the operations phase of the Project and cover the duration of operations until 12 months post completion
    - List the contaminants that will be monitored within Lagoon 115E, 85W and sensitive receptor sites downstream, and describe the location and frequency of monitoring
    - List the species and species' groups that will be monitored within Lagoon 115E, 85W and sensor receptor sites downstream, and describe the location and frequency of monitoring
    - Establish baseline values for the contaminants, species and species' groups that will be monitored, and trigger levels that if exceeded will initiate a change in management during

operations
    - Develop a hierarchy of controls if a trigger value is exceeded for any monitored contaminant or ecological value, including timing, responsibility and notifications to regulators (if required).
- An annual report will be prepared for the duration of the OEMP that will include the results of the monitoring, list any trigger values that have been exceeded and management changes that have been implemented in response.

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

No offsets are proposed under the EPBC Act Environmental Offsets Policy as the proposed action is not expected to have a significant impact to MNES.

Victorian native vegetation offsets will be secured for the project under the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) for the removal of 0.285ha of Tall Marsh EVC.

An offset of 0.0760 General Habitat Units with a minimum strategic biodiversity value of 0.216 within the Melbourne Water managed Port-Phillip and Westernport CMA or Wyndham City Council.

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 include a nuclear action as defined in Section 22 of the EPBC Act.

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. *

The proposed action is more than 30km from the closest Commonwealth Marine Region, located off the southern coastline of Victoria.

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 proposed action is more than 1000km from the Greater Barrier Reef Marine Park.

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

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

No

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

The proposed action does not involve the development of coal seam gas or large coal mining.

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.

—

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. *

The proposed action does not include any Commonwealth land.

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.

—

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 does not include any 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:

None

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)
- Threatened Species and Ecological Communities (S18)
- 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. *

Alternatives to the proposed action were not considered feasible for the following reason:

- As a result of the sustained increase in sewerage influent load, a ‘do nothing’ approach would see Melbourne Water’s treatment capacity exceeded and eventually lead to potential direct discharges of sewage into Port Phillip Bay, causing harm to the marine receiving environment and failure to comply with EPBC licence conditions. The proposed action allows for greater treatment capacity of sewage.
- The proposed action is only required until approximately 2036, at which time there should be sufficient solids treatment capacity across other Melbourne Water assets where treatment of TWAS at WTP will no longer be required.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document	Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document	Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 2 - WTP BCAC minutes.pdf WTP BCAC meeting minutes	05/08/2025	Yes	High
#2.	Document	Att 2 - WTP BCAC minutes_REDACTED.pdf WTP BCAC minutes	05/08/2025	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	Att 4 - Environment Policy.pdf MW Environment Policy	31/07/2024	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	Att 4 - Environment Policy.pdf MW Environment Policy	01/08/2024	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document				

Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document	Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 5 - Heritage Due Diligence Assessment.pdf MW heritage due diligence assessment	26/10/2025	Yes	High
#2.	Document	Att 5 - Heritage Due Diligence Assessment_REDACTED.pdf Heritage due diligence assessment	26/10/2025	No	High

4.1.3.6 (Ramsar Wetland) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document	Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	High
#3.	Document	Att 3 - Water Quality Assessment.pdf MW water quality assessment	30/11/2025	Yes	High
#4.	Document	Att 3 - Water Quality Assessment_REDACTED.pdf Water quality assessment	30/11/2025	No	High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document	Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	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	Att 1 - Detailed Ecology Report.pdf Detailed ecology report	01/12/2025	Yes	High
#2.	Document	Att 1 - Detailed Ecology Report_REDACTED.pdf Detailed ecology report	01/12/2025	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	81945386953
Organisation name	MELBOURNE WATER CORPORATION
Organisation address	990 La Trobe Street, Docklands VIC 3008
Representative's name	Ryan MacManus
Representative's job title	Senior Environment Advisor
Phone	0476409774
Email	ryan.macmanus@melbournewater.com.au
Address	990 La Trobe St, Docklands VIC 3008

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

☑ Check this box to confirm these are the correct identification details. *

☑ By checking this box, I, **Ryan MacManus of MELBOURNE WATER CORPORATION**, 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

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.

Same as Referring party information.

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

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Ryan MacManus of MELBOURNE WATER CORPORATION**, 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, **Ryan MacManus of MELBOURNE WATER CORPORATION**, the Person proposing the action, consent to the designation of **Ryan MacManus of MELBOURNE WATER CORPORATION** as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

✔ 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. *

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Ryan MacManus of MELBOURNE WATER CORPORATION**, 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.