EPBC Act referral

Australian Government
Department of Agriculture, Water and the Environment

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Title of proposal	2021/8963 - Parwan-Balliang Irrigation District – Recycled Water Supply Infrastructure

Section 1

Summary of your proposed action

1.1 Project industry type Water Management and Use

1.2 Provide a detailed description of the proposed action, including all proposed activities

Proposed action

The proposed action involves construction of the following infrastructure:

- A pump station and 2ML balance tank, with associated access, drainage and services infrastructure, and connections to the Melton to Bacchus Marsh (M2BM) Interconnector (EPBC Ref: 2018/8260:Parwan to Melton Pipeline). These works will be constructed on a 0.7ha site of current cropland to be acquired by Western Water at the south east corner of Nerowie Rd and Parwan South Rd, Parwan.
- A subsurface pipeline (approx. 14 km long, 675 mm diameter) extending from the pump station and balance tank south along Parwan South Rd, west along Schultz Rd, south along Geelong-Bacchus Marsh Rd including a crossing of Balliang Creek, and east along Ripley Rd through to Agars Rd including a second crossing of Balliang Creek. Pipeline offtakes will be installed to service foundation recycled water irrigation areas on existing cropland, with provision for future connections to Balliang East Primary School and Country Fire Authority facilities.

The proposed infrastructure is designed to transfer recycled water to the Parwan-Balliang area from Bacchus Marsh and Melton Recycled Water Plants (RWPs) via the M2BM Interconnector, and to distribute this recycled water to interested agricultural landowners within the proposed Parwan-Balliang Irrigation District (PBID). The proposed infrastructure will enable supply of up to 8,283ML/year of Class C recycled water for irrigation to an initial three foundation customers who have committed to a 20-year supply from the Western Irrigation Network (WIN) scheme. Recycled water will be supplied to these customers under the conditions of a Recycled Water Agreement to be agreed between Western Water and each customer.

The proposed pump station and balance tank are located in the approved action area for the M2BM Interconnector. Impacts to MNES associated with the pump station and balance tank are already accounted for under EPBC Approval 2018/8260. Western Water seeks to commence works on the pump station and balance tank ahead of the pipeline.

Construction of the pipeline involves:

- Approx. 12.4km of open trench construction within a construction corridor ranging from 10m to 20m wide, with a narrower corridor adopted through or adjacent to native vegetation
- Approx. 100m of micro-tunnelling for pipeline construction under Ballan Rd and 140m of micro-tunnelling for pipeline construction under School Rd and adjacent amenity tree plantings
- Two short sections of horizontal directional drilling (HDD) under Geelong-Bacchus Marsh Rd
- Approx. 1.1km of HDD for pipeline construction under the southern Balliang Creek crossing and adjacent areas to avoid impacts to large native trees along the creek and a large, high quality patch of native grassland
- Approx. 230m of HDD for pipeline construction along the northern side of Ripley Rd near Agars Rd to avoid cultural heritage.

The majority of the pipeline will be constructed within road reserve, except:

- Approx. 740m of pipeline on private cropland along the eastern side of Geelong-Bacchus Marsh Rd south of Schultz Rd. The pipeline has been located outside the road reserve at this location to avoid larger and higher quality native grassland patches identified in the Geelong-Bacchus Marsh Rd corridor (including EPBC Act listed Natural Temperate Grassland of the Victorian Volcanic Plain)
- Approx. 3.1km of pipeline on private cropland along the northern side of Ripley Rd (includes the southern Balliang Creek crossing). The pipeline has been located outside the road reserve at this location due to engineering issues at the creek crossing in the road reserve and to provide increased separation to a large patch of higher quality native grassland located on the southern side of Ripley Rd.

Four temporary laydown areas, all located on existing cropland, are proposed during construction, including:

- One on the eastern side of Geelong-Bacchus Marsh Rd, south of Schultz Rd
- One on the eastern side of Geelong-Bacchus Marsh Rd between the Balliang East Primary School and Balliang Creek
- One in the north east corner of the Geelong-Bacchus Marsh Rd / Ripley Rd intersection
- One in the north west corner of the Ripley Rd / Agars Rd intersection.

Project drivers and objectives

Western Water provides water, recycled water and sewerage services to a region incorporating Sunbury, Melton, Bacchus Marsh, the Macedon Ranges and surrounds. Rapid population growth across Western Water's service region is increasing the volumes of wastewater being received by Western Water for treatment, particularly at its Bacchus Marsh, Melton and Sunbury RWPs, which are licensed under the Environment Protection Act 1970. Western Water currently produces recycled water by treating urban wastewater to standards set by the Environment Protection Authority Victoria (EPA), including Class A recycled water supplied to residential growth areas in Melton for non-drinking purposes, and Class B and C recycled water supplied for

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commercial and agricultural operations such as irrigation of crops. Any excess recycled water is managed via licensed discharges into waterways. The existing capacity for recycled water users and licensed discharge restrictions mean that Western Water will not be able to meet the demand/increases in recycled water volumes forecast over the next 40 years, unless additional recycled water uses/users are identified.

In April 2018, Western Water completed a 12-month feasibility study into recycled water reuse options to address future EPA compliance through interconnections to develop an integrated recycled water supply network known as the Western Irrigation Network (WIN). The WIN aims to ensure Western Water can continue to meet environmental compliance obligations for forecast recycled water volumes through to 2050. As part of the feasibility study, Western Water sought expressions of interest from agricultural landowners in the Parwan-Balliang area seeking access to Class C recycled water. This area has low rainfall reliability, which impacts on the productive potential of the high quality soils in the area. The supply of recycled water to dryland farming properties in the Parwan-Balliang area was determined the most feasible option to maintain compliance with EPA licence conditions while accommodating projected population growth. The main benefits of the WIN option are:

- Lowest price increase for Western Water's urban and rural customers
- Contributes to reduced discharges to waterways, by facilitating an alternative pathway for reuse of recycled water
- Contributes to unlocking existing dryland cropping/grazing land for higher value irrigated agricultural production, which contributes to increased net margins and employment growth both on farm and in supporting industries, by delivering a secure and reliable water supply
- Increases resilience of local agricultural production to the effects of climate change by delivering a reliable, non-climate-dependent water supply.

Western Water aims to have the proposed infrastructure constructed and operational by August 2022 to enable recycled water to be delivered to its broadacre farming customers during the September 2022 to April 2023 irrigation season.

Appendix 1 shows the location of the PBID infrastructure, relative to other WIN projects described in Section 1.15 and 1.16. Appendix 2 shows the PBID infrastructure construction corridor (action area).

1.3 What is the extent and location of your proposed action?

See Appendix B

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)

The project area is located in the rural localities of Parwan and Balliang, approximately 8-16 km south east of Bacchus Marsh and 43 km west of the Melbourne central business district. The project area crosses Balliang Creek at two locations, and is located in the Melbourne Water waterway management district and the Port Phillip and Westernport Catchment Management Authority area. The project area is located entirely in the Victorian Volcanic Plains bioregion. The proposed pump station and balance tank, and most of the proposed pipeline are located in the Shire of Moorabool. Part of the proposed pipeline between the northern Balliang Creek crossing and the southern Balliang Creek crossing is located in the City of Greater Geelong.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The proposed action area is 31.5 ha and is based on the proposed construction corridor (disturbance footprint). The proposed action area includes the 0.7 ha site proposed to be acquired for the proposed pump station and balance tank, which is located within the approved action area for the M2BM Interconnector (EPBC Approval 2018/8260). The proposed action area includes a 10-12 m wide construction corridor where the pipeline passes through areas of native vegetation; a 16-20 m wide construction corridor where the pipeline passes through areas of non-native vegetation; and localised widening of the pipeline construction corridor to accommodate property connections/offtakes. Temporary laydown areas are included in the proposed action area. Opportunities for minor reduction of the disturbance footprint may be identified by the Construction Contractor once engaged, however the proposed action area does not currently include any specific areas of avoidance footprint.

1.7 Proposed action location

Address - Nerowie Road, Parwan, VIC, 3340, Australia

1.8 Primary jurisdiction Victoria

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

☑ Yes ☐ No

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1.9.1 Provide detail

In April 2020, the Australian Government, through the Department of Infrastructure, Transport and Regional Development, committed $48 million to co-fund construction of the WIN, of which $20 million was allocated for the proposed PBID pipeline, pump station and balance tank.

1.10 Is the proposed action subject to local government planning approval?

☑ Yes ☐ No

1.10.1 Is there a local government area and council contact for the proposal?

☑ Yes ☐ No

1.10.1.0 Council contact officer details

1.10.1.1 Name of relevant council contact officer	Moorabool Shire Council - Statutory Planning & Building Services
1.10.1.2 E-mail	info@moorabool.vic.gov.au
1.10.1.3 Telephone Number	03 5366 7100

1.11 Provide an estimated start and estimated end date for the proposed action	Start Date	01/10/2021
	End Date	31/08/2022

1.12 Provide details of the context, planning framework and state and/or local Government requirements

Planning and Environment Act 1987: The project is subject to the requirements of Moorabool Planning Scheme (pump station, balance tank, pipeline) and Greater Geelong Planning Scheme (pipeline). The following zones and overlays apply (Appendix 6 & 7):

- Farming Zone, Road Zone Category 2 (Nerowie Rd), Road Zone Category 1 (Geelong-Bacchus Marsh Rd), Public Use Zone 2 (Education)
- Moorabool Design and Development Overlay (Schedule 2 – Visual Amenity and Building Design), Moorabool Environmental Significance Overlay (Schedule 2 – Waterway Protection) (ESO2), Moorabool Environmental Significance Overlay (Schedule 7 – Grasslands within the Werribee Plains Hinterland) (ESO7), Greater Geelong Environmental Significance Overlay (Schedule 4 – Grasslands within the Werribee Plains Hinterland) (ESO4).

The project requires a planning permit from Moorabool Shire Council for removal of native vegetation under Clause 52.17 (Native Vegetation); and for removal of native vegetation in ESO7 and any vegetation in ESO2 under Clause 42.02 (Environmental Significance Overlay). The project requires a planning permit from Greater Geelong City Council for removal of native vegetation under Clause 52.17 and removal of native vegetation in ESO4 under Clause 42.02.

The project is well-supported by state, regional and local planning policy, particularly in terms of:

- Supporting the adaptation of the agricultural sector to respond to potential risks arising from climate change by supplying a non-climate dependent irrigation water supply
- Supporting diversification and value-adding of agriculture, and facilitating ongoing productivity and investment in high value agriculture through provision of irrigation water supply infrastructure
- Supporting rural economies to grow and diversify, and strengthening existing and planned employment areas, including Parwan Employment Precinct, by enhancing agricultural production capacity requiring supporting agribusiness activities.

The Victorian Government's 'Planning for Melbourne's Green Wedges and Agricultural Land' project recognises that "some of Victoria's most productive agricultural land is within 100km of central Melbourne and that as our climate changes, the ideal conditions of agricultural land become even more important to Victoria's food production". The PBID is identified in the Consultation Paper (May 2020) as 1 of 5 irrigation areas proposed to be protected by way of a new planning scheme overlay designed to protect food-producing areas with access to secure water supply and irrigation infrastructure. New regional policy statements and a strengthened role for water authorities in decision-making for applications to use or develop land in protected irrigation districts or in non-urban areas identified as having potential for access to alternative water in the future are also proposed.

Aboriginal Heritage Act 2006: A Cultural Heritage Management Plan (CHMP) is required as the project involves a high impact activity in an area of cultural heritage sensitivity

Flora and Fauna Guarantee Act 1988: A permit to take is required for the removal of protected flora on public land (i.e. roads, Balliang Creek)

Land Act 1958: Consent is required from Department of Environment, Land, Water and Planning (DELWP) for works on unreserved Crown land along Balliang Creek

Road Management Act 2004: Consent required to construct works within a road from Regional Roads Victoria (Geelong-Bacchus Marsh Rd) or the relevant council (other roads)

Water Act 1989: A works on waterways permit is required from Melbourne Water to construct works in, on, under or over Balliang Creek (i.e. two pipeline crossings). Western Water is also seeking to have the PBID declared a new irrigation district under the Water Act 1989.

Environment Protection Act: The Environment Protection Amendment Act 2018 comes into effect on 1 July 2021, and will

introduce new Environment Protection Regulations, and new Environment Reference Standards (ERS) to replace the current State Environment Protection Policies. Under the new Environment Protection Regulations, the supply or use of reclaimed wastewater is a prescribed permit activity. A permit will be required from EPA for the WIN prior to commencement of recycled water irrigation supplied by the proposed infrastructure. Construction and operation of the project will need to comply with the new ERS relating to ambient air and noise, land and water, and new general environmental duty introduced through the Environment Protection Amendment Act 2018 from 1 July 2021.

Other relevant legislative requirements include:

- Catchment and Land Protection Act 1994 – to prevent the spread of noxious weeds and pest animals
- Heritage Act 2017 – to manage unexpected finds of archaeological sites if encountered during construction
- Wildlife Act 1975 – to manage handling of wildlife if required during construction.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

More than 40 stakeholders, comprising groups and individuals, were engaged in developing the WIN Business Case in 2018/19 with the objectives being:

- To identify significant potential demand for recycled water out to 2050
- To understand the policy, planning, approvals and regulatory constraints of relevance and applicable to an Adaptive Pathways approach
- To gain a thorough understanding of community perceptions regarding the management of recycled water.

Key stakeholders involved in developing the WIN Business Case included:

- Potentially affected landowners
- Existing and potential Western Water customers, including current dryland farmers and recycled water irrigation farmers
- Federal and state government agencies (National Water Infrastructure Development Fund; DELWP; Department of Economic Development, Jobs, Transport and Resources; Victorian Planning Authority; EPA; Regional Development Victoria; Department of Treasury)
- Local councils (Moorabool Shire Council, Melton City Council)
- Water corporations (Melbourne Water, City West Water, Barwon Water, Southern Rural Water, internal Western Water staff)
- Traditional owner groups (Wurundjeri Elders Council, Boon Wurrung Foundation, Bunurong Land Council, Wada Wurrung)
- Agricultural industry groups (Victorian Farmers Federation, AusVeg Victoria).

Many of these stakeholders were engaged through the establishment of a Stakeholder Reference Group (SRG), which held regular meetings between March 2018 and April 2019, before the current Project Reference Group was established.

A report on findings from focus groups and deliberative forums (prepared by Market Solutions Pty Ltd (2018) and summarised in the WIN Business Case), found that:

- Western Water customers view recycled water as a valuable resource and an important element of sustainable water management; and they have a strong preference for beneficial reuse of recycled water rather than disposal to water environments upstream of Port Phillip Bay. Agricultural use of recycled water is supported, particularly if achieved locally.
- EPA reiterated that the project represents a sound strategy for compliance with RWP licence conditions.
- Moorabool Shire Council and Melton City Council are supportive of the WIN and noted that the project aligns with existing strategies and supports development of the proposed Parwan Employment Precinct.

A summary of specific engagement with Moorabool Shire Council in relation to the WIN is provided below:

- Moorabool representatives were included in development of the WIN Feasibility Study and WIN Business Case (via SRG)
- Councillor briefings: April 2018 and March 2020
- Moorabool Growth Management Committee Meeting Paper: December 2019
- Presentations to Moorabool Strategic Planning Team: November 2018, March 2019, December 2019
- Regular key stakeholder email updates.

Engagement with Greater Geelong City Council in relation to the WIN has been less extensive than in Moorabool Shire Council due to the relatively minor infrastructure and only one foundation customer within the Greater Geelong City Council municipal boundary.

Specifically in relation to the proposed PBID pipeline, pump station and balance tank, pre-application meetings have been held with:

- Moorabool Shire Council on 22 July 2020
- Greater Geelong City Council on 13 November 2020.

These meetings were attended by strategic and statutory planners, environment and engineering officers from each council, and included provision of information by Western Water on the project drivers, objectives and design; an overview of environmental and heritage studies undertaken to date; and discussion of planning approval requirements.

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A meeting was held with DELWP – Grampians Region on 27 November 2020 to provide information on the project drivers, objectives and design; an overview of environmental and heritage studies undertaken to date; along with discussion of the findings of recent biodiversity mapping work undertaken by DELWP – Grampians Region for the Bacchus Marsh area, including the project area.

A CHMP is being prepared for the PBID pipeline, pump station and balance tank in consultation with the Wadawurrung Traditional Owners Aboriginal Corporation as the Registered Aboriginal Party for the project area.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

A referral for the proposed action under the Environment Effects Act 1978 (EE Act) is being prepared for submission to DELWP in May 2021. At the request of DELWP, the EE Act referral encompasses the proposed action, along with:

- M2BM Interconnector (EPBC Ref. 2018/8260: Parwan to Melton Pipeline) – already approved under EPBC Act
- Bacchus Marsh RWP Pump Station – no MNES impacts
- Parwan Recycled Water Storage – no MNES impacts
- PBID Foundation Recycled Water Irrigation Areas (landowners responsible for implementation) – Stage 1 (no MNES impacts) and Stage 2 (further design and assessments required before implementation in 10 years' time)
- Sunbury RWP to Melton RWP (S2M) Interconnector – no alignment yet chosen; options assessment, design and assessments to be completed before seeking approvals.

These projects are further described in Section 1.15 and Section 1.16 of this referral. See Appendix 1 for locations.

1.15 Is this action part of a staged development (or a component of a larger project)?

☑ Yes ☐ No

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action

The proposed action is part of the WIN, which includes the following staged components:

M2BM Interconnector

- A 13.5 km (approx.) bi-directional subsurface pipeline (600 mm diameter) designed for the primary function of enabling the transfer of recycled water between the Melton and Bacchus Marsh RWPs to provide an alternative wet weather outlet for Bacchus Marsh RWP, which is close to its capacity to reuse Class C recycled water. Melton RWP provides alternative discharge options given its capacity to treat to Class A and its temporary licence to discharge to Werribee River. A secondary function of the M2BM Interconnector is to transfer recycled water from Melton RWP to the PBID for irrigation, however, it is required regardless of the PBID.
- Detailed design completed 2020. Scheduled to commence construction mid-2021.
- Project referred under EPBC Act in September 2018 and approved May 2021 (EPBC Ref. 2018/8260). The approved action area overlaps the PBID pump station and balance tank site. Impacts to MNES within the PBID pump station and balance tank site are therefore already accounted for under EPBC Approval 2018/8260.

Melton Recycled Water Storage and Pump Station

- A 1.1 GL earthen recycled water storage dam and pump station within the Melton RWP, designed for the primary function of addressing immediate on-site storage needs at Melton RWP to comply with the EPA licence. Secondary to addressing immediate on-site storage needs, these facilities also enable supply of recycled water to the PBID via the M2BM Interconnector, however, it is required regardless of the PBID.
- Detailed design completed 2020. Construction commenced December 2020 and needs to be constructed by December 2021 to meet specific EPA compliance commitments.
- An ecological assessment by GHD in 2019 identified 0.4 ha of native vegetation requiring removal for these works. A planning permit was granted by Melton City Council on 19 March 2020, and offsets have been secured. Impacted native vegetation did not correspond with any EPBC Act listed threatened species or communities, or significant habitat for listed threatened or migratory species.

Bacchus Marsh RWP Pump Station

- A new pump station to be constructed on the edge of an existing treatment lagoon within the Bacchus Marsh RWP (replaces an existing trailer-mounted pump), with a short transfer pipe connection to tie-in to an existing recycled water pipeline that runs south along Parwan South Rd to Nerowie Rd. Initially designed to transfer recycled water from the Bacchus Marsh RWP to the Melton RWP via the existing recycled water pipeline and the M2BM Interconnector. The pump station also enables transfer of recycled water to the PBID for irrigation via the existing pipeline along Parwan South Rd, however, it is required regardless of the PBID.
- Detailed design being finalised. Scheduled to commence construction late 2021.
- An ecological assessment by CH2M Beca in May 2021 identified no native vegetation, and no EPBC Act listed threatened species or communities, or habitat for listed threatened or migratory species within or adjacent to the pump station

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construction area.

Parwan Recycled Water Storage

- A 1 GL earthen recycled water storage dam to support demand projections for recycled water from PBID customers, located on existing cropping land adjacent to the PBID pump station and balance tank site. Not required until 2-3 years into operation of the PBID foundation phase (balance tank storage sufficient until then).
- Detailed design progressing. Scheduled to commence construction early 2024.
- An ecological assessment by CH2M Beca in March 2021 identified that this project will require removal of up to 19 scattered native trees. No EPBC Act listed threatened species or communities, or habitat for listed threatened or migratory species was identified within or adjacent to the proposed construction area.

S2M Interconnector

- A 30 km (approx.) long subsurface pipeline and pump station that would connect the Sunbury and Melton RWPs to enable transfer of recycled water from Sunbury RWP to the PBID via Melton RWP and the M2BM Interconnector.
- The S2M Interconnector is yet to be planned in any detail with multiple potential alignments currently being investigated to address priority demands for recycled water supply. A significant portion of land between Sunbury and Melton RWPs, and therefore the majority of the pipeline alignment options currently being considered, fall within the boundary of the Melbourne Strategic Assessment approved under the EPBC Act.
- The final investment decision for the S2M Interconnector is dependent on the proposal continuing to be the favoured strategic response to manage projected long-term increases in recycled water produced at Sunbury RWP, additional irrigation demand commitments in the PBID materialising and final tender pricing. Any chosen alignment would be subject to further design and assessment prior to seeking approvals.

1.16 Is the proposed action related to other actions or proposals in the region?

☑ Yes ☐ No

1.16.1 Identify the nature/scope and location of the related action (Including under the relevant legislation)

PBID Foundation Recycled Water Irrigation Areas

Three foundation customers, with a combined recycled water irrigation area of 1,189 ha, have committed to a 20-year supply from the WIN via the PBID pipeline. Each customer is responsible for design and approvals for their individual irrigation areas, which are required to comply with Western Water's EPA licence and Health & Environment Management Plan under the Environment Protection Act, and will be developed in two stages:

- Stage 1 (Years 1-10, 715 ha) - has been subject to detailed on-farm plan development, and biodiversity assessments, which identified minimal native vegetation removal (8 scattered native trees), not including any EPBC Act listed species or communities
- Stage 2 (Year 10+, 474 ha) has been subject to some planning and biodiversity assessment. Given the long lead time for implementation, refinements may occur if farming operational needs change - further assessments / approvals will be completed at that time.

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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☑ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☑ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☑ Yes ☐ No

Wetland

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

Impact

The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site is located approximately 20 km to the south east and downstream of the project area. During large flow events, potential exists for the project area to have hydrological connectivity with the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site via flows along Balliang Creek and then Little River.

The proposed pipeline crosses Balliang Creek at two locations, once along Geelong-Bacchus Marsh Rd approximately 1 km south of School Rd and once along Ripley Rd (paper road) between Geelong-Bacchus Marsh Rd and Agars Rd. Balliang Creek crosses the project area in a north west to south east direction, draining towards Little River with which it merges approximately 7 km south east of the project area. Both Balliang Creek and Little River are rated as 'Poor' by DELWP's 2010 Index of Stream Condition Scores. Little River has a stream condition score of 'Very Poor' downstream of its junction with Balliang Creek through to its outlet to Port Phillip Bay and the Ramsar site approximately 20 km to the south east.

The location of the northern Balliang Creek crossing is highly degraded, dominated by exotic species, such as Water Couch (Paspalum distichum), with some limited Tall Marsh (EVC 821). There is an existing access track across the creek, which would be used during construction. This section of pipeline would be constructed by open trenching adjacent to the existing access track. The location of the southern Balliang Creek crossing contains some native vegetation, including large trees and patches of Creekline Grassy Woodland (EVC 68), and has less disturbed bed and banks. This section of pipeline would be constructed by under-boring. An existing access track across the creek would be used during construction to avoid the need for in-stream works. Both Balliang Creek crossings have limited to no aquatic vegetation present, other than some Common Reed present at the northern creek crossing. In the vicinity of the project area, Balliang Creek is adjoined on both sides by cropped paddocks and contains limited riparian vegetation. Physical barriers to movement are present at both creek crossings in the form of raised access tracks across the creek bed, with other barriers along the creek occurring at various road culvert crossings including along Geelong-Bacchus Marsh Rd (upstream of project area) and Sharkey Rd (downstream of project area).

The proposed pipeline would be subsurface, with existing access tracks across the creeks utilised for construction purposes. Sections of Balliang Creek crossed by the proposed works flow infrequently and where feasible, open trenched construction is proposed to occur during no/low flow periods. On completion of open trenching construction works, the creek beds are proposed to be reinstated to match the existing invert level and revegetated. Erosion and sediment controls would be detailed in the contractor's CEMP and employed throughout construction to manage the potential for sediment runoff into Balliang Creek and nearby waterways and wetlands.

The project is not likely to have any impact on the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site given the available separation distance, the small area of ground disturbance works within and adjacent to Balliang Creek, the infrequency of flows and presence of existing barriers to flow along Balliang Creek both upstream and downstream of the project area, and the poor to very poor condition of downstream waterways between Balliang Creek and the Ramsar site such as Little River.

The project area does not contain and is not located upstream of any other wetlands listed under the Ramsar Convention.

2.3.2 Do you consider this impact to be significant?

☐ Yes ☑ No

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2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☑ Yes ☐ No

Species or threatened ecological community

Natural Temperate Grassland of the Victorian Volcanic Plain (Critically Endangered) (NTGVVP)

Impact

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). Detailed vegetation surveys were undertaken in May 2020 in accordance with the Vegetation Quality Assessment Manual (DSE 2004). An initial assessment of NTGVVP was also undertaken during these surveys, considering features such as vegetation structure, minimum patch size and perennial ground layer vegetation cover, which can be assessed all year round (DEWHA 2011). Follow-up condition checks of patches identified during the initial assessment as having potential to qualify as NTGVPP, were undertaken in spring (October 2020) to assess percentage native grass cover and native forb diversity (DEWHA 2011).

The extent of NTGVVP in the assessment area and construction corridor is shown in Appendix 3. Detailed assessments mapped 1.945 ha of NTGVVP in the assessment area of which 0.253 ha was mapped in the construction corridor and is proposed to be impacted. Lower quality NTGVVP patches occurred in the Geelong-Bacchus Marsh Rd, Parwan South Rd and Schultz Rd reserves, where modified patches were of lower native forb diversity, but native grass species met the 50% cover criteria. These patches were dominated by either Spear Grass or Bristly Wallaby Grass, and have been historically highly modified through construction of driveways, drainage lines, powerlines and fences, which has fragmented larger areas of grassland into smaller discrete patches, particularly between Ballan Rd and School Rd. Regular slashing has reduced biomass and weed cover, increasing inter-tussock space, however surface rock is absent and has been used for fencing. Evidence of topsoil scraping and pesticide use was also observed along boundary fences and crop edges.

Higher quality patches of NTGVVP occurred in the southern section of the assessment area, within private property east of the southern Balliang Creek crossing. Although surrounding crops have created isolated patches of NTGVVP, these patches were notably dominated by native grass species such as Kangaroo Grass, Windmill Grass, Spear grasses, Wallaby grasses, Common Wheat-grass and Red-leg Grass, and supported herbaceous plains grassland species including Sheep's Burr, Bluebell, Common New Holland Daisy, Slender Bindweed, Kidney Weed and Jersey Cudweed. Surface rock and inter-tussock spaces were also present, however weed species included Wild Oat, which was observed to dominate patches at the beginning of spring, occupying the majority of inter-tussock space.

The proposed removal of 0.253 ha of NTGVVP within the construction corridor, equates to less than 15% of the NTGVVP identified in the assessment area. Removal of NTGVVP has been avoided and minimised through an iterative design process that resulted in:

- Avoidance of impacts to a large patch of higher quality NTGVVP located east of the southern Balliang Creek crossing by under-boring this section of pipeline and utilising an existing track for construction access at this location. These measures also avoid direct impacts to a contiguous area of Plains Grassland (EVC 132) that meets the criteria for the Western(Basalt) Plains Grasslands listed threatened community under the Victorian Flora and Fauna Guarantee Act 1988 (FFG Act).
- Avoidance of impacts to most of a large patch of NTGVVP located in the Geelong -Bacchus Marsh Rd reserve south of Schultz Rd by realigning the pipeline into adjacent private cropping land.
- Avoidance of impacts to a relatively large patch of NTGVVP located on the eastern side of Parwan South Rd by realigning the pipeline to the western side of the road.
- Avoidance or minimisation of impacts to a number of relatively large patches of NTGVVP within the road reserves through localised narrowing of the construction corridor from a preferred 16-20 m down to 10-12 m width.

Where avoidance, even with a reduced construction corridor width, was not feasible within the constraints of the road reserve, and impacts to adjacent private land were not feasible, impacts to NTGVVP have been minimised by aligning the construction corridor along patch edges to avoid fragmentation.

In addition to direct removal, construction of the project has the potential for edge effects on patches of NTGVVP located adjacent to the construction corridor that are proposed to be retained, including through the introduction or spread of weeds, and soil compaction.

Furthermore, the project has sought to avoid or minimise impacts to higher quality patches of Plains Grassland that met the criteria for FFG Act listed Western(Basalt) Plains Grasslands but not the size and/or condition thresholds for EPBC Act listed NTGVVP, including through pipeline alignment and/or narrowing the construction corridor.

Species or threatened ecological community

Striped Legless Lizard (Delma impar) (Vulnerable) (SLL)

Impact

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader

assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). Preliminary ecological assessments assessed SLL as having a high likelihood of occurrence in the project area based on recent records (27/09/2016) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species.

The project area was assessed as containing areas of low quality habitat and medium-high quality habitat for SLL (Appendix 4). Low quality habitat was identified along Geelong-Bacchus Marsh Rd, Parwan South Rd and Schultz Rd. Lower quality habitat was dominated by Spear Grass, lacked native forb diversity and contained high weed cover (>40%). Surface rock was sporadically present along the edges of gravel tracks in the Parwan South Rd and Schultz Rd reserves, which also contained evidence of pesticide use and heavy vehicle soil compaction along the edges of tracks. Surface rock was not observed in low quality habitat along Geelong-Bacchus Marsh Rd.

Medium-high quality habitat was identified on private property north of Ripley Rd particularly east of the southern Balliang Creek crossing, on private property south of Ripley Rd (outside project area), and on private property east of Geelong-Bacchus Marsh Rd and south of Bluegum Track. Higher quality habitat was characterised by more open and diverse areas of Kangaroo Grass, Spear Grass and Wallaby Grass, with bare ground and surface rock present, and a higher native forb diversity. The condition of medium-high quality was observed to vary over time due to ongoing disturbance, including pesticide use, sheep grazing and rabbit activity, but most notably through Wild Oat infestations which dominated these patches in spring, removing inter-tussock spaces.

SLL was recorded within approximately 1.2 km of the southern end of the project area during targeted surveys for VicRoads' Geelong-Bacchus Marsh Road Upgrade Project (EPBC Ref: 2017-8018)(EHP 2017a). Targeted surveys by EHP (2017a) included two tile grids within the project area along Geelong-Bacchus Marsh Rd (including near the medium-high quality patch south of Bluegum Track), which did not detect the species. SLL was also not recorded during targeted surveys for the M2BM Interconnector (EPBC Ref: 2018/8260) in October to November 2018 (EHP 2021), which included tile grids located within 0.5 km of the northern end of the project area along Nerowie Rd.

For the PBID pipeline, targeted surveys were undertaken for SLL in suitable habitat along Parwan South Rd and Schultz Rd (west of Geelong-Bacchus Marsh Rd) between October 2019 and April 2020, during appropriate seasonal and daily climate conditions. No SLL were detected during targeted surveys. Surveys were not conducted along Geelong-Bacchus Marsh Rd and Schultz Rd (east of Geelong-Bacchus Marsh Rd) due to the low quality habitat and results of previous targeted surveys nearby not having detected the species. Surveys were not conducted in higher quality habitats in the project area, as design was able to avoid direct impacts to most of this habitat. SLL has been assumed present in areas of medium-high quality habitat in the project area.

The project may directly impact 0.0089 ha of medium-high quality habitat for SLL located within the proposed construction corridor, along the edge of an existing track proposed to be used during construction east of the southern creek crossing. Being located along the edge of an existing track, the small area of medium-high habitat directly impacted, is of lower quality to the remainder of the contiguous patch with evidence of soil compaction, pesticide use, and higher levels of Wild Oat infestation reducing inter-tussock spaces. Further restriction of track corridor width is not considered feasible for safe and efficient construction vehicle movement. Direct impacts to more than 80% of medium-high quality habitat identified in the assessment area have been avoided through design, including by re-aligning the pipeline outside these areas, and where this was not feasible, by under-boring as proposed for the largest patch of medium-high quality habitat east of the southern creek crossing. A further 2.297 ha of low quality habitat is proposed to be removed in the construction corridor, however based on the results of targeted surveys and the levels of disturbance in these areas, SLL are considered unlikely to persist in these low quality habitats. Potential indirect impacts include the introduction and spread of weeds, and possible disruption to SLL movement or injury if allowed to move into construction areas. Measures are proposed to mitigate direct and indirect impacts to this species (see Section 4).

Species or threatened ecological community

Golden Sun Moth (Synemon plana) (Critically Endangered) (GSM).

This conservation listing of this species is currently being reviewed by the Threatened Species Scientific Committee and is proposed to be revised under the EPBC Act from Critically Endangered down to Vulnerable. The significance of impact assessments contained in this referral and the detailed ecological impact assessment report (Appendix 8) are based on the current conservation listing status under the EPBC Act of Critically Endangered.

Impact

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). Preliminary ecological assessments assessed GSM as having a moderate likelihood of occurrence within the project area on the basis there are recent records (08/01/2014) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species.

The project area was assessed as containing areas of low quality habitat for GSM and areas of medium-high quality habitat

for GSM consistent with the habitats mapped for SLL (Appendix 4). Low quality habitat was identified along the Geelong-Bacchus Marsh Rd, Parwan South Rd and Schultz Rd corridors. Lower quality habitat was dominated by Spear Grass, lacked native forb diversity and contained high weed cover (> 40%). Surface rock was sporadically present along the edges of the gravel tracks within the Parwan South Rd and Schultz Rd corridors, which also contained evidence of pesticide use and heavy vehicle soil compaction along the edges of gravel tracks. Surface rock was not observed within low quality habitat along Geelong-Bacchus Marsh Rd.

Medium-high quality habitat was identified on private property north of Ripley Rd particularly east of the southern Balliang Creek crossing, on private property south of Ripley Rd (outside project area), and on private property east of Geelong-Bacchus Marsh Rd and south of Bluegum Track. Higher quality habitat was characterised by more open and diverse areas of Kangaroo Grass, Spear Grass and Wallaby Grass, with bare ground and surface rock present, and a higher native forb diversity. The condition of medium-high quality was observed to vary over time due to historical and ongoing disturbance, including pesticide use, sheep grazing and rabbit activity, but most notably through Wild Oat infestations which dominated these patches in spring, removing inter-tussock spaces.

As for SLL, the project may directly impact 0.0089 ha of medium-high quality habitat and 2.297 ha of low quality habitat for GSM within the proposed construction corridor. Targeted surveys for GSM were conducted within all areas of medium-high quality habitat within the project area, along with low quality habitat along Schultz Rd (Appendix 5). Following further deterioration of low quality habitat along Parwan South Rd since the preliminary field assessment, which had resulted in complete removal or fragmentation of grassland patches from pesticide use, topsoil removal or placement of farm items (e.g. hay bales), targeted surveys for GSM were not conducted along Parwan South Rd. Targeted surveys were conducted on four days between 27 November 2020 and 11 January 2021, during appropriate seasonal and daily climate conditions. No GSM were detected during targeted surveys.

Previous targeted surveys along Geelong-Bacchus Marsh Rd undertaken in 2016 for VicRoads' Geelong-Bacchus Marsh Road Upgrade Project (EPBC Ref: 2017-8018)(Okologie 2017) did not detect GSM within the PBID project area, however GSM were detected along Geelong-Bacchus Marsh Rd within approximately 1.2 km of the southern end of the PBID project area. Previous targeted surveys observed the species within Plains Grassland (EVC 132). Patches were dominated by the native Kneed Spear-grass, Rough Spear-grass, Common Wallaby Grass and Bristly Wallaby Grass at 60-80% cover, with 5-10 % bare ground and only 10-20% exotic weed cover (Okologie 2017). Medium-high quality habitat surveyed for the PBID pipeline during the 2020/2021 season was similar to these parameters.

Due to historical and ongoing disturbances along the road reserves, including regular mowing and vehicle access with associated topsoil scalping and soil compaction, the species is not considered likely to persist in lower quality grassland habitat within the project area. Higher quality patches (e.g. NTGVVP) within the road reserve often occurred at lower points in the landscape, near drainage lines and driveway culverts, where water pooling is evident. GSM is also not considered likely to persist in areas of higher quality grassland habitat on private property due to evidence of pesticide use, sheep grazing and rabbit activity, combined with observed increases in percentage cover of Wild Oat in spring, which removed available bare ground in these habitats.

Based on the findings of the detailed ecological assessment, GSM is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project. Nevertheless, measures are proposed to mitigate direct and indirect impacts to this species (see Section 4).

Species or threatened ecological community

Growling Grass Frog (Litoria raniformis) (Vulnerable) (GGF)

Impact

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). Preliminary ecological assessments assessed GGF as having a moderate likelihood of occurrence within the project area on the basis there are recent records (06/12/2018) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments identified a potential for Balliang Creek to comprise marginal dispersal habitat, potentially providing for movement between farm dams or wetlands throughout the wider landscape.

Detailed vegetation assessments determined that the northern Balliang Creek crossing is highly degraded, dominated by exotic species, such as Water Couch, with some limited Tall Marsh (EVC 821), while the southern Balliang Creek crossing contains some native vegetation, including large trees and patches of Creekline Grassy Woodland (EVC 68). However, both Balliang Creek crossings were determined to have limited to no aquatic vegetation present, other than some Common Reed present at the northern creek crossing. Physical barriers to movement are present at both Balliang Creek crossings in the form of raised access tracks across the creek bed, both of which will be used during construction to avoid creation of additional barriers. Two farm dams located along Balliang Creek either side of Geelong-Bacchus Marsh Rd were also identified as lacking aquatic vegetation. Based on these assessments, a total of 2.222 ha of low quality GGF habitat was mapped within the assessment area of which 0.072 ha was mapped within the construction corridor and may require removal for the project (Appendix 4).

Prior to January 2021, water had not been observed within Balliang Creek during various ecological surveys for this project, either at the southern Balliang Creek crossing or the northern Balliang Creek crossing, other than in the farm dams on private property east and west of the Geelong-Bacchus Marsh Rd culverts. During a targeted survey for Golden Sun Moth on 11 January 2021, it was noted that, following heavy rainfall, water had pooled in three locations near the southern Balliang Creek crossing and dams were overflowing near the northern Balliang Creek crossing, however water was not flowing through the road culverts. Although considered to provide only marginal habitat, the opportunity for a conservative approach was taken, and targeted surveys for GGF were conducted along Balliang Creek on 13 and 21 January 2021 following the heavy rainfall event.

No GGFs were detected during the targeted surveys. Common frog species, such as Striped Marsh Frog and Pobblebonk, were heard over the two nights of survey. This finding is consistent with previous targeted surveys for GGF undertaken for VicRoads' Geelong-Bacchus Marsh Road Upgrade Project (EPBC Ref: 2017-8018), which targeted Balliang Creek and other culverts (e.g. Dry Creek) within the PBID project area, and which also did not detect any GGF (EHP 2017b).

Given the degraded condition of Balliang Creek throughout the landscape, existing artificial barriers along the creekline, and historical agricultural land use, including cropping and pesticide use, GGF is not expected to persist within the project area or wider local area. The potential for the species to breed within this habitat is low due to the absence of aquatic vegetation suitable for egg-laying and development, and a very high likelihood of the creek system becoming dry during the breeding season. The value of the creek as a dispersal corridor is also limited, as the upstream and downstream reaches appear highly degraded and are also unlikely to retain water for much of the year.

Based on the findings of the detailed ecological assessment, GGF is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project. Nevertheless, measures are proposed to mitigate potential direct and indirect impacts to this species (see Section 4).

Species or threatened ecological community

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

Impact

A detailed ecological assessment has been prepared for the project (Appendix 8). During preliminary ecological assessments, Grey-headed Flying-fox was assessed as having a moderate likelihood of occurrence within the project area. Although there are no recent records of this species within 5 km of the project area on the Victorian Biodiversity Atlas, DAWE's National Flying-fox Monitoring Program Viewer (DAWE 2021) identifies a flying-fox camp within Long Forest Flora and Fauna Reserve approximately 10-15 km north of the project area, and preliminary field assessments identified some marginal foraging habitat in the project area.

Although this species may fly over and occasionally forage within the project area, due to the limited extent of foraging habitat identified during detailed vegetation assessments, combined with the absence of known camps and suitable roosting habitat within the project area, this species was considered unlikely to be impacted by the project and no further surveys were undertaken.

Species or threatened ecological community

Spiny Rice-flower (Pimelea spinescens subsp. spinescens) (Critically Endangered)

Impact

According to the National Recovery Plan (Carter and Walsh 2006), Spiny Rice-flower is a small spreading shrub growing to 30 cm in height, with partly herbaceous stems, that is endemic to central west Victoria and occurs in grassland or open shrubland on basalt-derived soils, usually comprising black or grey clays. Populations have been substantially fragmented and depleted historically by land clearance for settlement, industry and agriculture, which remain major threats along with weed invasion, grazing and altered fire regimes.

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). During preliminary ecological assessments, Spiny Rice-flower was assessed as having a moderate likelihood of occurrence within the project area on the basis there are recent records (03/03/2020) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species, particularly in less modified locations.

Targeted surveys for Spiny Rice-flower were undertaken in suitable habitat within the assessment area on 24 June 2020 following confirmation that this species was flowering at a nearby reference site (Truganina Cemetery) on 17 June 2020, which is within the flowering period (Apr-Aug) for this species (DEWHA 2009). This species was not observed during targeted surveys undertaken in suitable habitat within the project area on 24 June 2020.

Due to historical and ongoing disturbance within the Geelong-Bacchus Marsh Rd and other road reserves, this species is unlikely to persist in lower quality native grassland habitats in these parts of the project area. Disturbance, including pesticide use, and temporal changes in weed cover of higher quality patches of native grassland on private property within the project

area indicate that this species is also unlikely to persist in these areas. As discussed in relation to potential impacts to NTGVVP, design development has achieved a significant reduction in potential impacts to native grasslands, particularly higher quality native grassland patches, which also avoids or minimises impacts to potentially suitable habitat for this species.

Based on the findings of the detailed ecological assessment, Spiny Rice-flower is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project.

Species or threatened ecological community

Matted Flax-lily (Dianella amoena) (Endangered)

Impact

According to the National Recovery Plan (Carter, 2010), Matted Flax-lily is a small, perennial, tufted lily endemic to Victoria, where it is distributed from the south west to the east, occurring in grassland and grassy woodland habitats. Remaining populations of this species are mostly small and highly fragmented due to clearing, and continue to be threatened by ongoing clearing of habitat and weed invasion.

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). During preliminary ecological assessments, Matted Flax-lily was assessed as having a moderate likelihood of occurrence within the project area on the basis there are recent records (03/03/2020) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species, particularly in less modified locations.

This species was not observed during spring surveys (flowering period: Oct-Apr) undertaken in suitable habitat within the assessment area in October 2020. Due to historical and ongoing disturbance within the Geelong-Bacchus Marsh Rd and other road reserves, this species is unlikely to persist in lower quality native grassland habitats in these parts of the project area. The higher quality native grassland patches (e.g. NTGVVP) on private property are not managed for conservation purposes, and are isolated within surrounding crops. Given the biological requirements of this species, it is likely to be outcompeted in these areas due to the lack of inter-tussock space, particularly during early spring when Wild Oat was observed to dominate grassland patches and occupy the majority of inter-tussock space. As discussed in relation to potential impacts to NTGVVP, design development has achieved a significant reduction in potential impacts to native grasslands, particularly higher quality native grassland patches, which also avoids or minimises impacts to potentially suitable habitat for this species.

Based on the findings of the detailed ecological assessment, Matted Flax-lily is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project.

Species or threatened ecological community

Large-fruit Fireweed (Senecio macrocarpus) (Vulnerable)

Impact

According to the National Recovery Plan (Sinclair, 2010), the Large-fruit Fireweed is a small perennial daisy endemic to south eastern Australia, including Victoria, where it been recorded widely across the State, from near Horsham in the west to near Omeo in the east, with most records from western Victoria, where it occurs with many other herb species in grassland dominated by Kangaroo Grass on heavy basalt clay soils.

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). During preliminary ecological assessments, Large-fruit Fireweed was assessed as having a moderate likelihood of occurrence within the project area on the basis there are recent records (03/03/2020) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species, particularly in less modified locations.

This species was not observed during spring surveys (flowering period: Sep-Nov) undertaken in suitable habitat within the project area in October 2020. Due to historical and ongoing disturbance within the Geelong-Bacchus Marsh Rd and other road reserves, this species is unlikely to persist in lower quality native grassland habitats in these parts of the project area. Disturbance, including pesticide use, and temporal changes in weed cover of higher quality patches of native grassland on private property within the project area indicate that this species is also unlikely to persist in these areas. As discussed in relation to potential impacts to NTGVVP, design development has achieved a significant reduction in potential impacts to native grasslands, particularly higher quality native grassland patches, which also avoids or minimises impacts to potentially suitable habitat for this species.

Based on the findings of the detailed ecological assessment, Large-fruit Fireweed is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project.

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Species or threatened ecological community

Small Golden Moths Orchid (Diuris basaltica) (Endangered)

Impact

According to the National Recovery Plan (Backhouse and Lester, 2010), the Small Golden Moths Orchid is a small, yellow deciduous terrestrial orchid that grows in herb-rich native grasslands dominated by Kangaroo Grass on heavy basalt soils, often with embedded basalt boulders. This species is endemic to a small area on the Keilor and Werribee plains immediately west of Melbourne, stretching from Sydenham in the north to Lara in the south, where it has suffered catastrophic declines in range and abundance, and now survives in just three wild populations containing about 400 plants.

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). During preliminary ecological assessments, Small Golden Moths Orchid was assessed as having a moderate likelihood of occurrence within the project area on the basis there are recent records (03/03/2020) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species, particularly in less modified locations.

This species was not observed during spring surveys (flowering period: Sep-Oct) undertaken in suitable habitat within the project area in October 2020. Due to historical and ongoing disturbance within the Geelong-Bacchus Marsh Rd and other road reserves, this species is unlikely to persist in lower quality native grassland habitats in these parts of the project area. Disturbance, including pesticide use, and temporal changes in weed cover of higher quality patches of native grassland on private property within the project area indicate that this species is also unlikely to persist in these areas. As discussed in relation to potential impacts to NTGVVP, design development has achieved a significant reduction in potential impacts to native grasslands, particularly higher quality native grassland patches, which also avoids or minimises impacts to potentially suitable habitat for this species.

Based on the findings of the detailed ecological assessment, Small Golden Moths Orchid is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project.

Species or threatened ecological community

Clover Glycine (Glycine latrobeana) (Vulnerable)

Impact

According to the National Recovery Plan (Carter and Sutter, 2010), Clover Glycine is a small perennial herb endemic to south eastern Australia, growing mostly in grasslands and grassy woodlands, which has suffered extensive decline in distribution and abundance due to widespread degradation and destruction of habitat, including through grazing, weed invasion and altered fire regimes. In Victoria on the western basalt plains, this species occurs in grassland dominated by Kangaroo Grass with a varying richness of herbs.

A detailed ecological assessment has been prepared for the project (Appendix 8), including initial assessment of a broader assessment area to inform avoid and minimise design measures followed by impact assessment of the final construction corridor (i.e. the proposed action area) (Appendix 2). During preliminary ecological assessment, Clover Glycine was assessed as having a moderate likelihood of occurrence within the project area on the basis there are recent records (03/03/2020) of this species within 5 km of the project area on the Victorian Biodiversity Atlas and preliminary field assessments determined the project area supported suitable habitat for the species, particularly in less modified locations.

This species was not observed during spring surveys (flowering period: spring at lower elevations) undertaken in suitable habitat within the project area in October 2020. Due to historical and ongoing disturbance within the Geelong-Bacchus Marsh Rd and other road reserves, this species is unlikely to persist in lower quality native grassland habitats in these parts of the project area. Disturbance, including pesticide use, and temporal changes in weed cover of higher quality patches of native grassland on private property within the project area indicate that this species is also unlikely to persist in these areas. As discussed in relation to potential impacts to NTGVVP, design development has achieved a significant reduction in potential impacts to native grasslands, particularly higher quality native grassland patches, which also avoids or minimises impacts to potentially suitable habitat for this species.

Based on the findings of the detailed ecological assessment, Clover Glycine is unlikely to occur within the project area (which includes the construction corridor) and is therefore unlikely to be impacted by the project.

2.4.2 Do you consider this impact to be significant?

☐ Yes ☑ No

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

☐ Yes ☑ No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

☐ Yes ☑ No

2.7 Is the proposed action likely to be taken on or near Commonwealth land?

☐ Yes ☑ No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

☐ Yes ☑ No

2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development?

☐ Yes ☑ No

2.10 Is the proposed action a nuclear action?

☐ Yes ☑ No

2.11 Is the proposed action to be taken by a Commonwealth agency?

☐ Yes ☑ No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas?

☐ Yes ☑ No

2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?

☐ Yes ☑ No

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

A detailed ecological impact assessment report has been prepared by CH2M Beca (March 2021) (see Appendix 8), and consolidates the findings of a desktop assessment, preliminary field assessments, detailed vegetation assessment and mapping, and targeted surveys for listed threatened species considered likely to occur in the project area as follows:

- SLL – targeted surveys conducted in areas of suitable habitat (as identified and relevant to the project area at the time) along Parwan South Rd and Schultz Rd between October 2019 and April 2020
- GSM – targeted surveys conducted in areas of suitable habitat on 27 November 2020, 14 December 2020, 30 December 2020 and 11 January 2021
- GGF – targeted surveys conducted in areas of marginal dispersal habitat (Balliang Creek) following a heavy rainfall event in January 2021
- Spiny Rice-flower – targeted surveys conducted in areas of suitable habitat on 24 June 2020
- Other threatened flora typically associated with native grassland communities of the Victorian Volcanic Plain - targeted surveys conducted in conjunction with condition assessments of potential threatened native grassland patches in October 2020 during their seasonal spring flowering period. Species targeted included EPBC Act and FFG Act listed Matted Flax-lily, Clover Glycine, Large-fruit Fireweed, Small Golden Moths.

Where medium to high quality SLL habitat was identified in the final project area and no surveys were undertaken, the presence of this species has been assumed and impacts on this species considered in this referral.

The findings of flora and fauna surveys undertaken for this project by CH2M Beca, are supplemented by the findings of earlier surveys by SMEC (2019), EHP (2017a and 2017b) and Okologie (2017) undertaken within and adjacent to the project area as part of VicRoads' Geelong-Bacchus Marsh Road Upgrade Project (EPBC Ref: 2017-8018).

The following flora and fauna values were identified in the project area during detailed ecological assessments:

Threatened ecological communities:

- NTGVVP listed as Critically Endangered under the EPBC Act – 0.253 ha located in construction corridor and impacted by proposed works
- Western (Basalt) Plains Grassland listed under the FFG Act – 0.7109 ha located in construction corridor and impacted by proposed works.

Threatened flora species:

- Buloke (FFG Act – listed, VicAdv – endangered) – not located in construction corridor / not impacted
- Salt Copperbur (FFG Act – listed, VicAdv – endangered) – not located in construction corridor / not impacted
- Flax-lily (VicAdv - vulnerable) – one individual located in construction corridor and impacted by proposed works
- No EPBC Act listed threatened flora species were recorded during targeted surveys.

Threatened fauna species:

- GGF (EPBC Act – Vulnerable, FFG Act – listed, VicAdv – endangered) – not recorded during targeted surveys, marginal dispersal habitat only, not considered present
- GSM (EPBC Act – Critically Endangered, FFG Act – listed, VicAdv – critically endangered) – not recorded during targeted surveys, mostly low quality habitat, not considered present
- SLL (EPBC Act – Vulnerable, FFG Act – listed, VicAdv – endangered) – not recorded during targeted surveys, assumed present in medium-high quality habitat areas not surveyed, approximately 0.0089 ha of medium-high quality habitat in construction corridor and impacted by proposed works
- Tussock Skink (VicAdv – vulnerable) – not recorded during recent CH2M Beca surveys or previous Striped Legless Lizard surveys along Geelong-Bacchus Marsh Rd, but considered moderately likely to occur within medium-high quality grassland habitat
- Fat-tailed Dunnart (VicAdv – near threatened) – not recorded during recent CH2M Beca surveys but recorded during previous Striped Legless Lizard surveys along Geelong-Bacchus Marsh Rd, considered moderately likely to occur within medium-high quality grassland habitat.

The PMST modelled 14 listed migratory species as potentially occurring within 5 km of the project area. Due to marginal grassland and woodland habitat present, and the absence of any significant aquatic habitat, the project area is not considered to contain important habitat for listed migratory species and as such, listed migratory species are considered unlikely to be significantly impacted by the project.

3.2 Describe the hydrology relevant to the project area (including water flows)

The northern portion of the PBID pipeline, along with the PBID pump station and balance tank site are located within the

Werribee River catchment. The southern portion of the PBID pipeline, south of about Ballan Rd, is located within the Moorabool River catchment. The project area is not located within or upstream of any designated special water supply catchment areas. The Parwan Designated Water Supply Catchment Area is located approximately 5 km north west of the project area. See Appendix 9.

The proposed pipeline crosses Balliang Creek at two locations, once along Geelong-Bacchus Marsh Rd approximately 1 km south of School Rd and once along Ripley Rd (paper road) between Geelong-Bacchus Marsh Rd and Agars Rd. Balliang Creek crosses the project area in a north west to south east direction, draining towards Little River with which it merges approximately 7 km south east of the project area. Both Balliang Creek and Little River are rated as 'Poor' by DELWP's 2010 Index of Stream Condition Scores. Little River has a stream condition score of 'Very Poor' downstream of its junction with Balliang Creek through to its outlet to Port Phillip Bay approximately 20 km to the south east. No waterways are located within or adjacent to the PBID pump station and balance tank site.

The location of the northern Balliang Creek crossing is highly degraded, dominated by exotic species, such as Water Couch (Paspalum distichum), with some limited Tall Marsh (EVC 821), and having an existing access track across the creek (this section of pipeline would be constructed by open trenching). The location of the southern Balliang Creek crossing contains some native vegetation, including large trees and patches of Creekline Grassy Woodland (EVC 68), and has less disturbed bed and banks (this section of pipeline would be constructed by under-boring). Both creek crossings have limited to no aquatic vegetation present, other than some Common Reed present at the northern creek crossing. Physical barriers to movement are also present at both creek crossings in the form of raised access tracks across the creek bed, of which both would be used during construction. Two farm dams are located either side of Geelong-Bacchus Marsh Rd at the northern Balliang Creek crossing. Both dams lack aquatic vegetation.

The proposed pipeline also crosses Dry Creek at one location (this section of pipeline would be constructed by open trenching). This crossing is also highly degraded, with native vegetation within the proposed construction footprint limited to a small patch of Plains Grassy Wetland (EVC 125) adjacent to the existing road embankment, which is approved for removal by VicRoads for the Geelong-Bacchus Marsh Road Upgrade Project.

The project area does not contain any internationally or nationally important wetlands listed under the Ramsar Convention or A Directory of Important Wetlands in Australia (DIWA). The Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site, which also encompasses the Werribee-Avalon DIWA site, is located approximately 20 km to the south east and downstream of the project area. The project area does not contain any current wetlands mapped by DELWP in the Victorian Wetland Inventory. The nearest DELWP mapped wetlands are (Appendix 9):

- Wetland 70072 (300 m west of the pipeline along Parwan South Rd)
- Wetland 70067 (50 m south of the pipeline along Schultz Rd)
- Wetland 70109 (along Dry Creek, 300 m east of the pipeline along Geelong-Bacchus Marsh Rd)
- Wetland 70106 (along Balliang Creek, 50 m west of the pipeline along Geelong-Bacchus Marsh Rd).

Reference to Visualising Victoria's Groundwater database indicates a typical depth to watertable of approximately 5-10 m across much of the project area. The depth to water table is shallower (<5 metres) in the vicinity of the Balliang Creek and Dry Creek crossings along Geelong-Bacchus Marsh Rd, and along Schultz Rd, and deeper (10-20 metres) where the project area is located in proximity to volcanic cones such as adjacent to Bald Hill along Geelong-Bacchus Marsh Rd and along Parwan South Rd. As part of the geotechnical investigations undertaken for the project by CH2M Beca between September 2019 and November 2020, groundwater monitoring standpipes were installed in five boreholes across the investigation area. No groundwater was encountered during the measurements after allowing the standpipes to normalise after drilling.

3.3 Describe the soil and vegetation characteristics relevant to the project area

The project area is located on the Victorian Volcanic Plain, which is dominated by Cainozoic volcanic deposits that form an extensive flat to undulating basaltic plain with stony rises, old lava flows, numerous volcanic cones and old eruption points, and is dotted with shallow lakes both salt and freshwater. Soils of the Victorian Volcanic Plain are variable with:

- red friable earths and acidic texture contrast soils (Ferrosols and Kurosols) on the higher fertile plains
- calcareous sodic texture contrast soils grading to yellow acidic earths (Chromosols and Sodosols to Dermosols) on the intermediate plain
- grey cracking clays (Vertosols) on the low plains
- stony earths (Dermosols and Tenosols) on the stony rises (volcanic outcropping).

The Geological Survey of Victoria (1980) 1:50,000 scale You Yangs geological map (Sheet 7722-11 Zone 55) indicates that the project area is underlain by quaternary age 'Newer Volcanic' (Qvn) comprising basaltic soils with minor scoria and interbedded gravel, sand and clay. Intersecting the project area towards the north are sedimentary soils of quaternary age comprising alluvial terrace deposits of sand, silt, clay and minor fine-grained gravel. Geotechnical investigations undertaken for the project between September 2019 and November 2020, encountered ground conditions generally consistent with the regional geology map indications, which comprise residual soil derived from the weathering of the underlying basalt. The

basalt is further sub-divided into two groups: scoria and the less weathered, intact rock.

Vegetation characteristics are described in Section 3.1 and Section 3.5.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

The project area has been extensively cleared of native vegetation and is highly disturbed due to historical and ongoing agricultural land uses and infrastructure development. However, a number of conservation areas are located within approximately 10-15 kilometres of the project area, including:

- Brisbane Ranges National Park – located 10 km to the west
- Existing Western Grasslands Nature Conservation Reserve – located 7 km to the east
- Proposed Western Grasslands Reserves – located 2 km to the east
- Werribee Gorge State Park – located 13 km to the north west
- Long Forest Flora and Fauna Reserve – located 9 km to the north east
- You Yangs Regional Park – located 11 km to the south.

3.5 Describe the status of native vegetation relevant to the project area

The majority of the project area and surrounding landscape has been extensively cleared of native vegetation. A vegetation assessment mapped a total of 1.865 ha of native vegetation patches and five scattered native trees within the proposed 31.5 ha construction corridor (Appendix 3 and 8), equating to approximately 5% native vegetation cover.

Native vegetation proposed to be impacted within the construction corridor is comprised of:

- Plains Grassy Woodland (EVC 55_61) (Endangered) = 0.047 ha
- Plains Grassy Wetland (EVC 125) (Endangered) = 0.037 ha
- Heavier Soils Plains Grassland (EVC 132_61) (Endangered) = 1.756 ha
- Tall Marsh (EVC 821) (Endangered) = 0.024 ha
- Scattered trees = three River Red Gums, two Yellow Box.

Native vegetation proposed to be impacted by the proposed works accounts for less than 20% of the 9.704 ha native vegetation mapped within the assessment area identified for the project, which demonstrates the effectiveness of the iterative design process in avoiding and minimising impacts.

Creekline Grassy Woodland was mostly present along the southern Balliang Creek crossing and was dominated by a canopy of large River Red Gums. The understorey included sporadic native pockets of Kangaroo Grass and Ruby Saltbush. Herbs present were Sheep's Burr and Grassland Wood-sorrel. However, herb species cover was low (5%) and often lacking completely in some patches. Aquatic species were also lacking, with Rush present at a maximum of 5% cover. Patches of Creekline Grassy Woodland were dominated by exotic species African Boxthorn, Toowoomba Canary-grass and Water Couch.

Plains Grassy Woodland was present at two locations at the southern end of the project area, one patch in a paddock (Grey Box canopy) and two patches in the Ripley Rd corridor (River Red Gum canopy). A shrub layer was absent, while ground layer species, such as Common Raspwort, Nodding Saltbush, Ivy-leaved Violet and Berry Saltbush, were present in low numbers. A native grass layer was sporadically present, with species such as Rough Spear-grass, Windmill-grass and Common Wallaby Grass, although the ground layer was generally dominated by exotic weeds and pasture grasses, including Toowoomba Canary-grass, Brome and Wild Oat.

Woodland EVCs mapped within the project area did not meet the condition thresholds for any EPBC Act listed threatened communities modelled to occur in the PMST, which included Grassy Eucalypt Woodland of the Victorian Volcanic Plain, Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia, and White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland. This was mostly due to the small patch size and/or the absence or highly degraded nature of the understorey, as further discussed in Appendix 8.

Plains Grassy Wetland was present within the project area along Geelong-Bacchus Marsh Rd where water frequently pools due to artificial barriers formed during prior road and driveway construction. In these wetter depressions, Plains Grassland has merged into relatively small patches of Plains Grassy Wetland dominated by Juncus spp. and Common Spike-rush (80% cover), along with Mud Dock and Common Wallaby-grass. These patches of Plains Grassy Wetland did not meet the condition thresholds for the EPBC Act listed Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains modelled occur in the PMST, due to poor species diversity and small patch size (<0.5ha), as further discussed in Appendix 8.

Plains Grassland is the most prevalent EVC within the project area. Within the project area, Plains Grassland can be broadly described as occurring in areas of either high or low quality. High quality Plains Grassland patches were dominated by native grass species such as Kangaroo Grass, Windmill Grass, Spear grasses, Wallaby grasses, Common Wheat-grass and Red-leg Grass. Many supported herbaceous plains grassland species including Sheep's Burr, Bluebell, Common New Holland Daisy, Slender Bindweed, Kidney Weed and Jersey Cudweed. Higher quality patches were consistent with the EPBC Act listed threatened ecological community NTGVVP and the FFG Act listed threatened community, Western (Basalt) Plains Grassland Community. Within lower quality patches, native grasses were observed in low densities (around 25% cover),

however these patches were typically dominated by weeds and exotic pasture grasses. Common coloniser species included Toowoomba Canary-grass, Wild Oat, Common Couch, Greater Quaking-grass, Ribwort, Clover, Rye Grass and Cat' s Ear. Patches of this lower quality Plains Grassland commonly occurred throughout the project area, particularly within the Geelong-Bacchus Marsh Rd corridor.

Tall Marsh was observed only at the crossing of Geelong-Bacchus Marsh Rd with Balliang Creek, in areas of marshy inundated depression. The vegetation was noted to be of low diversity, comprising mainly of Common Reed and rushes.

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

The project area and surrounding land are characterised by gently undulating terrain, punctuated by scoria cones from historic volcanic eruptions. The proposed pump station and balance tank site is located just to the north west of an old eruption point that has formed a crater, which is proposed to be utilised for the Parwan Recycled Water Storage to be constructed in a future stage (see Section 1.15).

There is a gradual and gentle grading from the northern end of the project area (pump station and balance tank site) (approx. 165 m Australian Height Datum (AHD)) down to the southern end of the project area (approx. 120 m AHD). Low points occur at the creek crossings, with surface elevations of approx. 125 m AHD at the crossing of Dry Creek, 120 m AHD at the northern Balliang Creek crossing, and 108 m AHD at the southern Balliang Creek crossing.

3.7 Describe the current condition of the environment relevant to the project area

The project area encompasses agricultural land and road reserves in which extensive clearance of native vegetation has occurred for establishment and ongoing management of cropping and grazing activities, and for the construction of roadways and associated utility installations. Native vegetation within the project area and surrounding landscape is generally restricted to relatively small, fragmented linear patches within road reserves and along creek lines, and on remnant stony rises that have not been cleared for cropping.

Nine noxious weeds declared under the Catchment and Land Protection Act 1994 have been recorded within the project area, including: Patterson's Curse, African Boxthorn, Prickly Pear, Blackberry, Serrated Tussock, Spear Thistle, Artichoke Thistle, Variegated Thistle and Stinkwort.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

A Cultural Heritage Due Diligence Assessment completed for the project by CH2M Beca dated 20 May 2020 determined that the project area does not contain any heritage places listed on the World Heritage List, National Heritage List, Commonwealth Heritage List, Victorian Heritage Register or Victorian Heritage Inventory or any sites covered by a Heritage Overlay under the Moorabool Planning Scheme or Greater Geelong Planning Scheme.

The nearest registered historical heritage places comprise three sites affected by a Heritage Overlay (HO) under the Moorabool Planning Scheme (Appendix 10):

- Moorabool HO196 - Former Parwan South (Nerowie) State School No 4175 and Mechanics' Institute - located in the north east corner of Parwan South Rd and Nerowie Rd, to the north of the proposed pump station and balance tank site on the opposite side of Nerowie Rd.
- Moorabool HO133 - Dwelling - located at 3105 Geelong-Bacchus Marsh Rd on the opposite (western) side of the road to the proposed pipeline.
- Moorabool HO134 - Dry Stone Wall - located in the north west corner of Geelong-Bacchus Marsh Rd and Swamp Rd on the opposite (western) side of Geelong-Bacchus Marsh Rd to the proposed pipeline where it deviates to the east along Ripley Rd.

Based on a review of previous historical heritage assessments and available aerial imagery, the Cultural Heritage Due Diligence Assessment concluded that:

- The most likely site type in the project area would be places associated with past rural land use activities, however it is unlikely that other remnants of agricultural use (such as homesteads) would be present in the project area, due to the restricted linear nature of the project, and the lack of apparent structures in the historical aerial imagery outside the project area where it follows Geelong-Bacchus Marsh Rd.
- It is unlikely that the structures identified within and adjoining the project area along Geelong-Bacchus Marsh Rd, other than nearby HO133 and HO134, comprise significant historical heritage sites due to the extensive nature of the heritage studies already undertaken within the region. The project is unlikely to impact on current or former buildings/structures associated within HO133 and HO134 as they are situated outside the project area.
- There is low potential for sub-surface archaeological features to be associated with past rural land where the project area enters rural properties.
- No further historical heritage assessment is recommended.

Dry stone walls are known to occur in the vicinity of this project area, including along Ripley Rd where a small section of dry stone wall would be removed to construct an offtake and then reinstated. It is noted that Clause 52.33 (Post Boxes and Dry Stone Walls) of Victoria Planning Provisions, which seeks to conserve historic dry stone walls in specified locations, however, Clause 52.33 does not apply to land within the project area as it is not identified in the schedule to Clause 52.33 in either the Moorabool or Greater Geelong Planning Schemes.

3.9 Describe any Indigenous heritage values relevant to the project area

The project area contains three areas of cultural heritage sensitivity as defined by the Aboriginal Heritage Regulations 2018, these being registered Aboriginal Places, land within 50 m of the registered Aboriginal Places and land within 200 m of Balliang Creek and Dry Creek (Appendix 11). As the project involves a high impact activity as defined in the Aboriginal Heritage Regulations 2018, a mandatory CHMP is required under the Aboriginal Heritage Act 2006.

Draft CHMP No. 17237 is currently being prepared for the PBID pipeline, pump station and balance tank. Investigations completed to date include a desktop assessment, standard assessment and complex assessment. The desktop assessment identified three previously recorded Aboriginal Places (consisting of 105 components) within the project area: VAHR 7722-1130, VAHR 7722-1131, and VAHR 7722-1190. Two new Aboriginal Places have been identified in the project area during the draft CHMP investigations and have been submitted for registration. These Aboriginal Places comprise surface and subsurface low-density artefact distributions and one surface and subsurface artefact scatter. Most of the artefacts identified during the draft CHMP investigations were made from silcrete, with quartz, quartzite, and tachylyte, making up the remainder of the assemblage.

To manage Aboriginal Places found within the project area, management conditions are currently being drafted in consultation with the Wadawurrung Traditional Owners Aboriginal Corporation as the Registered Aboriginal Party (RAP) for the project area under the Aboriginal Heritage Act 2006. Draft management conditions include specific measures such as RAP compliance inspections (general and for specific work activities), protective fencing, controls on laydown area establishment, avoidance by under-boring of specified artefact locations, and salvage at some specified artefact locations, along with general conditions relating to cultural heritage training.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

The majority of the project area is located within road reserves (Nerowie Rd, Parwan South Rd, Schultz Rd, Geelong-Bacchus Marsh Rd, Ripley Rd). Fourteen freehold parcels are intersected by the project area, including eight freehold parcels where only minor offtake works will be undertaken. Sections of Parwan South Rd and Ripley Rd within the project area are subject to unused road licences enabling use of land within the road reserve for certain purposes by the licensed adjoining landowner. The project area intersects two parcels of Crown land managed by DELWP along Balliang Creek (Appendix 12).

3.11 Describe any existing or any proposed uses relevant to the project area

The proposed pump station and balance tank will be located on a small part (0.7 ha) of a large parcel (1\PS341744) of privately owned freehold land within the Farming Zone land that is currently used for cropping.

The proposed pipeline is mostly located within existing road reserves, except for two sections of 740 m and 3.1 km, which are mostly located on privately owned cropping land within the Farming Zone. The longer of these sections includes a crossing of uncropped land along Balliang Creek, which is also in the Farming Zone. In addition to offtakes to the farming land owned by the three foundation customers, the PBID pipeline includes provision for possible future connections to the Balliang East Primary School and Country Fire Authority facilities located within the Geelong-Bacchus Marsh Rd corridor just south of Davis Rd, subject to EPA approval of any proposed recycled water use. An existing above ground low voltage transmission line crosses the proposed pipeline along Geelong-Bacchus Marsh Rd in the vicinity of Ballan Rd.

Each of the four temporary laydown areas are located on current cropping land within the Farming Zone. Land parcels containing temporary laydown are:
- 3\PS315762
- 2\PS315762
- 4\LP12800
- 5\LP12800
- 1\TP96216.

A small farm dam is located within the proposed laydown area in the south east corner of Geelong-Bacchus Marsh Rd and Schultz Rd (3\PS315762), and would be filled in for construction of the project in agreement with the landowner.

On completion of construction works, all construction areas associated with the proposed pipeline and associated offtakes, temporary laydown areas and access, would be reinstated to enable continuation of the current land use. No change to

current land uses is proposed, other than the proposed acquisition of approximately 0.7 ha of current farming land to contain the proposed pump station and balance tank. Western Water is seeking to establish easements where the PBID pipeline traverses private land.

Surrounding land uses comprise mainly dryland cropping and grazing activities, with a low density of dwellings scattered on large rural properties. Slightly smaller rural properties supporting equestrian facilities and rural industries are located in the vicinity of the Bacchus Marsh Airport, which is located approximately 3 km north west of the proposed pump station and balance tank site. Rural residential properties are located to the north east of the Geelong-Bacchus Marsh Rd and School Rd intersection at Balliang East. Balliang East Primary School is located in the south east corner of the Geelong-Bacchus Marsh Rd and School Rd intersection. The Balliang East Soldiers Memorial Hall is located on the opposite side of Geelong-Bacchus Marsh Rd to the school. The Bacchus Marsh RWP is located approximately 2 km north of the proposed pump station and balance tank site. A motocross track and rally driving facilities and quarry are located on the northern side of Nerowie Rd opposite the proposed pump station and balance tank site.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

Measures proposed to further avoid or minimise impacts include:

All works (and ancillary activities) are to be contained within the construction corridor. Previously cleared or highly disturbed areas are to be utilised for ancillary works (e.g. stockpiling, laydowns, site offices). All 'No-go Zones' are to be shown on all site maps in the Construction Environmental Management Plan (CEMP).

Native vegetation offsets are to be in place prior to removal of native vegetation.

Where partial patch removal or under-boring are to occur, exclusion fencing is to be erected around the vegetation (planted and native) to be retained, incorporating the Tree Protection Zone (TPZ). These areas are to be signed as No-go Zones.

Where scattered trees or large canopy trees are to be retained within or in close proximity to proposed work areas, tree protection plans are to be prepared by a qualified arborist to ensure that trees proposed to be retained are adequately protected from the impact of construction or related activities, prior to those works being undertaken. Tree protection plans are to be developed in accordance with AS4970-2009 Protection of Trees on Development Sites in consultation with key stakeholders. TPZs are to be signed as No-go Zones.

Where EPBC Act and/ or FFG Act listed communities are identified to be retained, high visibility para-web fencing or temporary mesh fencing is to be erected around these areas where located in proximity to the works area. These areas are to be signed as No-go Zones.

Where SLL habitat has been identified adjacent to the construction corridor, high visibility mesh bunting or temporary construction fencing is to be erected along the boundary of the construction corridor. Adjacent habitat areas are to be signed as No-go Zones. Fencing should be sufficient to prevent vehicular and pedestrian access into retained habitat, and designed to allow lizard movement between areas of retained habitat where possible, while excluding lizard movement into work areas. Wherever possible, surface and/or embedded rocks, or other refuge sites (e.g. logs) are to be retained within the works area. Where removal of these habitat features is unavoidable, appropriate surface refuges or cover is to be reintroduced to augment existing habitat.

Appropriate GSM exclusion mesh fencing is to be installed for sections of construction corridor boundary fences adjoining retained medium-high quality GSM habitat to prevent potential flight of this species into the works area. Fencing is not required to be erected along the stone wall south of Ripley Rd as the stone wall provides an existing barrier.

An ecologist/wildlife handler holding the appropriate authorisation under the Wildlife Act 1975 is to be present during tree felling, particularly for removal of hollow-bearing trees, to minimise the risk of injury or harm to fauna. Where native vegetation is to be cleared and an ecologist determines that fauna may be displaced along Geelong-Bacchus Marsh Rd, all works are to be supervised by an ecologist/wildlife handler to minimise the risk of fauna species displaced by the works straying onto adjacent roads. Staged construction fencing to avoid fauna dispersal onto Geelong-Bacchus Marsh Rd and reduced speed limits are recommended.

To prevent the spread of declared weeds and pathogens, vehicles and machinery are to access the construction corridor through defined entry and exit points; construction stockpiles, machinery, roads, and other infrastructure are to be placed away from areas supporting native vegetation and waterways; and standard Chytrid Fungus controls are to be implemented where works to connected waterbodies or waterways are occurring.

Works in Balliang Creek are to be undertaken in accordance with Melbourne Water requirements. Works are to be undertaken so as not to cause an adverse change in current water quality or a reduction in the current suitability of fish passage of any waterway, particularly Balliang Creek. For open trenching at the northern creek crossing, works are to be undertaken during no/low flow periods where feasible and revegetation of the creek bed and banks is to occur following construction. High visibility para-web fencing or temporary mesh fencing is to be erected to prevent vehicular and pedestrian access to Balliang Creek, other than where required within the construction corridor for open trench pipeline construction at the northern creek crossing and to provide access across the creek via an existing track at the southern creek crossing.

Erosion and sediment control measures are to be implemented in accordance with applicable EPA Victoria construction guidelines.

During removal/filling of the existing farm dam south of Schultz Rd, an ecologist/wildlife handler is to be present, to minimise the risk of injury or harm to aquatic fauna. Any fauna removed is to be relocated to the nearest suitable waterbody.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

Substantial avoidance of impacts to MNES has been achieved through the design development process, which has resulted in:

- More than 85% of the NTGVVP identified within the project assessment area being retained
- More than 95% of low quality GGF habitat identified within the project assessment area being retained
- More than 99% of medium-high quality SLL and GSM habitat identified within the project assessment area being retained
- More than 60% of low quality SLL and GSM habitat identified within the project assessment area being retained.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Native vegetation offsets will be secured for the project under the Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017), and will include offsetting the proposed removal of Plains Grassland (EVC 132), which coincides with areas of proposed impacts to NTGVVP, and potential habitat for SLL and GSM.

Potential indirect impacts on MNES, including adjacent areas of retained habitat for listed threatened species and communities, are proposed to be avoided or minimised through implementation of the measures summarised in Section 4.1 and further described in Appendix 8.

Potentially significant residual impacts to MNES, specifically the removal of NTGVVP and medium-high quality SLL habitat, are therefore expected to be negligible.

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Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☐ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

Listed threatened communities

Apart from NTGVVP, no other EPBC Act listed threatened communities have been identified within the project area.

The likelihood of the project having a significant impact on NTGVVP has been assessed as low-moderate provided the recommended mitigation measures are implemented (refer to the significant impact assessment in Appendix J of Appendix 8). The significant impact criteria contained in the Significant Impact Guidelines 1.1 indicate that any reduction in the extent of a Critically Endangered threatened community is a potentially significant impact. The project will unavoidably require the direct removal of 0.253 ha of NTGVVP, which will reduce the extent of this threatened community. However, the extent of impact has been substantially reduced through design and residual impacts are limited to the edges of the lower quality patches of NTGVVP identified within the project area. These lower quality patches exist mostly in the Geelong-Bacchus Marsh Rd corridor, and are highly fragmented, generally of lower native grass and forb species diversity, and are subject to ongoing threatening processes associated with the continuing use of the land for road and other infrastructure purposes, and use of adjoining land for cropping purposes.

Listed threatened species

No EPBC Act listed threatened flora species have been identified within the project area during targeted flora surveys, which specifically considered listed species potentially occurring in the vicinity such as Spiny Rice-flower, Matted Flax-Lily, Clover Glycine, Large-fruited Fireweed and Small Golden Moths Orchid.

The project has been assessed as unlikely to have a significant impact on GGF (refer to the significant impact assessment in Appendix J of Appendix 8). Approximately 0.072 ha of low quality habitat for this species has been identified as potentially impacted. However, targeted surveys for GGF undertaken for the PBID project and the adjacent Geelong-Bacchus Marsh Road Upgrade Project, have not detected this species. Both assessments have determined that Balliang Creek and adjacent waterbodies do not support breeding habitat for this species due to the absence of suitable aquatic vegetation and at best, may provide marginal dispersal habitat in the unlikely event the species does persist in the local area.

The project has been assessed as unlikely to have a significant impact on SLL provided the recommended mitigation measures are implemented (refer to the significant impact assessment in Appendix J of Appendix 8). The species has not been detected in parts of the project area subject to targeted surveys for the PBID project and the adjacent Geelong-Bacchus Marsh Road Upgrade Project. However, based on recent records of the species in proximity to the project area, SLL has been assumed present in areas of medium-high quality habitat within the project area where targeted surveys have not been completed. The project will impact only a very small area (0.0089 ha) of medium-high quality habitat for SLL, with these impacts occurring along the edge of an existing access track already exposed to edge effects and unlikely to result in further fragmentation.

The project has been assessed as unlikely to have a significant impact on GSM provided the recommended mitigation measures are implemented (refer to the significant impact assessment in Appendix J of Appendix 8). The project will impact only a very small area (0.0089 ha) of medium-high quality habitat for GSM, with these impacts occurring along the edge of an existing access track already exposed to edge effects and unlikely to result in further fragmentation. The species was not detected during targeted surveys of this medium-high quality habitat and is not considered likely to persist in the project area. Areas of medium-high quality habitat within the project area was observed to experience significant infestation of Wild Oat during spring, which substantially reduced the inter-tussock space required by this species.

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Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Yes, Western Water Region Water Corporation have a satisfactory record of responsible environment management.
Western Water operates under a management-endorsed Environmental Policy and in accordance with an environmental management system aligned with AS/NZS ISO14001, which encompasses its delivery of water and sewerage services, the planning, design and construction of capital projects, and general administrative operations.
Western Water operates all seven of its recycled water plants under a single EPA Corporate Licence (Licence No. 74268), which requires completion of extensive environmental monitoring and submission of publicly available Annual Performance Statements to EPA. A copy of Western Water's 2019/2020 Annual Performance Statement can be provided on request.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

Western Water has recorded 8 incidents over the last 20 years that have resulted in penalties under the Environment Protection Act 1970, mostly involving penalty infringement notices issued for sewer or pump station spills, or unlicensed discharge of recycled water due to insufficient storage. In 2017, a pollution abatement notice was issued requiring further investigation of groundwater impact for all Western Water RWPs, and was subsequently revoked in 2019. Further details of these incidents and compliance proceedings can be provided on request.

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☑ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

A copy of Western Water's environmental policy is attached as Appendix 12.

A copy of Western Water's IS14001-certified Environmental Management System is attached as Appendix 13.

Western Water's 'Class B and C Health and Environment Management Plan 2017' (HEMP) provides the framework for managing its current Class B and C recycled water schemes. The Class B and C HEMP is directly linked to Western Water's business processes, including risk management, monitoring, auditing and reporting systems contained in its Integrated Management Strategy and ISO14001 certified Environmental Management System (EMS). The Class B and C HEMP has been developed in accordance with EPA's "Guidelines for Environmental Management Use of Reclaimed Water" (Publication No. 464.2, 2003) and demonstrates WW's commitment to its 100% recycling aspiration, and the responsible management of the supply and beneficial use of recycled water in compliance with its EPA Corporate Licence.

The current Class B and C HEMP is in the process of being updated to incorporate the Western Irrigation Network and to align with new EPA guidelines and publications for recycled water schemes being progressively developed in response to the Environment Protection Amendment Act 2018.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☑ Yes ☐ No

6.4.1 EPBC Act No and/or Name of Proposal

2018/8260 – Western Region Water Corporation/Water Management and Use/Plan CP104323, Lot 20 LP5327, Allot. 19 Sec. A PARISH OF MOORADORANOOK, Lot 1 TP745347,/Victoria/Parwan to Melton Pipeline, VIC
2017/7878 - Western Region Water Corporation/Waste Management (sewerage)/Parwan-Exford Road, Parwan South/Victoria/Installation of sewage rising main infrastructure, Parwan-Exford Rd, VIC
2016/7718 - Western Region Water Corporation/Waste Management (sewerage)/Southern Road Reserve of Greigs Rd West and the Western Road Reserve of Mt Cottrell Rd. Rockbank/Victoria/Rockbank Sewer Rising Main - Greigs Road West Vegetation Removal, Rockbank VIC
2014/7187 - Western Region Water Corporation/Waste management (sewerage)/Southern road reserve of Greigs Road West and western road reserve of Mount Cottrell Road, Rockbank/VIC/Western Region Water Corporation /Waste management (sewerage)/Greigs Road West and Mount Cottrell Road, Rockbank /Victoria/Rockbank and Toolern Sewer, Water and Recycled Water Infrastructure Upgrades
2011/6083 - Western Region Water Corporation/Water management and use/Melton- Approx 35km west of

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Melbourne/Victoria/Water Utilities Infrastructure

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 7

Information sources

Reference source

Backhouse, G. and Lester, K. (2010). National Recovery Plan for the Small Golden Moths Orchid Diuris basaltica. Department of Sustainability and Environment, Melbourne. Available online: http://www.environment.gov.au/system/files/resources/24e70d76-62f1-4d12-aed6-0b9895256351/files/diuris-basaltica.pdf

Reliability

Government publication

Uncertainties

More than 10 years since last updated

Reference source

Carter, O. (2010). National Recovery Plan for the Matted Flax-lily Dianella amoena. Department of Sustainability and Environment, Victoria. Available online: http://www.environment.gov.au/system/files/resources/8e7859d4-b4bb-47ac-b15b-c3fd18c3ff93/files/dianella-amoena.pdf

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Carter, O and Sutter, G. (2010). National Recovery Plan for Clover Glycine Glycine latrobeana. Department of Sustainability and Environment, Melbourne. Available online: http://www.environment.gov.au/system/files/resources/4753331e-4000-4e55-b870-a89566462170/files/glycine-latrobeana.pdf

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Reference source

Carter, O. and Walsh, N. (2006). National Recovery Plan for the Spiny Rice-flower Pimelea spinescens subsp. spinescens. Department of Sustainability and Environment, Melbourne. Available online: http://www.environment.gov.au/system/files/resources/05b081c7-f962-46b9-a33f-4aa1af9613b9/files/p-spinescens.pdf

Reliability

Government publication

Uncertainties

More than 10 years since last updated

Reference source

DAWE (2021). National Flying-fox Monitoring Program Viewer. Australian Government, Canberra, ACT. Available online: https://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-wide.jsf

Reliability

Government publication

Uncertainties

Based on data from CSIRO monitoring methodology

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source

DELWP (2017). Guidelines for the removal, destruction or lopping of native vegetation, December 2017. Department of Environment, Land, Water and Planning, Melbourne. Available online: https://www.environment.vic.gov.au/__data/assets/pdf_file/0021/91146/Guidelines-for-the-removal,-destruction-or-lopping-of-native-vegetation,-2017.pdf

Reliability

Government guidelines

Uncertainties

N/A

Reference source

DEWHA (2009). Significant impact guidelines for the critically endangered spiny rice-flower (Pimelea spinescens subsp. spinescens). Department of the Environment, Heritage and the Arts, Commonwealth Government, ACT.

Reliability

Government publication

Uncertainties

More than 10 years since last updated

Reference source

DEWHA (2011). Nationally Threatened Ecological Communities of the Victorian Volcanic Plain: Natural Temperate Grassland & Grassy Eucalypt Woodland. A guide to the identification, assessment and management of nationally threatened ecological communities Environment Protection and Biodiversity Conservation Act 1999. Department of Sustainability, Environment, Water, Population and Communities, ACT.

Reliability

Government publication

Uncertainties

10 years since last updated

Reference source

DSE (2004). Vegetation quality assessment manual: Guidelines for applying the Habitat Hectares scoring method. Version 1.3. Victorian Department of Sustainability and Environment, Melbourne. Available online: https://www.environment.vic.gov.au/__data/assets/pdf_file/0016/91150/Vegetation-Quality-Assessment-Manual-Version-1.3.pdf.

Reliability

Government guidelines

Uncertainties

N/A

Reference source

EHP (2017a). Targeted Survey for Striped Legless Lizard, Geelong-Bacchus Marsh Road (Little River-Ripley Road to Ballan Road). Ecology and Heritage Partners Pty Ltd, Melbourne.

Reliability

Consultant report for a project assessed and approved under EPBC Act.

Uncertainties

Limitations as stated in the report

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Reference source

EHP (2017b). Targeted Survey for Growling Grass Frog, Geelong-Bacchus Marsh Road (Little River-Ripley Road to Ballan Road). Ecology & Heritage Partners Pty Ltd, Melbourne.

Reliability

Consultant report for a project assessed and approved under EPBC Act.

Uncertainties

Limitations as stated in the report

Reference source

EHP (2020). Preliminary Documentation: Parwan to Melton Recycled Water Pipeline (EPBC 2018/8260). Ecology and Heritage Partners Pty Ltd, Melbourne.

Reliability

Consultant report for a project assessed and approved under EPBC Act.

Uncertainties

Limitations as stated in the report

Reference source

Okologie (2017). Targeted Golden Sun Moth Survey: Geelong Bacchus Marsh Road Upgrade Project, Little River-Ripley Road to Fisken Street. Okologie Consulting, Jan Juc.

Reliability

Consultant report for a project assessed and approved under EPBC Act.

Uncertainties

Limitations as stated in the report

Reference source

SMEC (2019). Preliminary Documentation Request - Geelong-Bacchus Marsh Road Upgrade Project, Victoria [EPBC 2017/8018]. SMEC, Melbourne.

Reliability

Consultant report for a project assessed and approved under EPBC Act.

Uncertainties

Limitations as stated in the report

Reference source

Sinclair, S.J. (2010). National Recovery Plan for the Large-fruit Groundsel Senecio macrocarpus. Department of Sustainability and Environment, Melbourne. Available online: http://www.environment.gov.au/system/files/resources/7ff81c15-6f9a-49cc-abc1-e836a55eb34e/files/senecio-macrocarpus.pdf.

Reliability

Government publication

Uncertainties

More than 10 years since last updated

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

Yes ☑ No

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 9

Person proposing the action

9.1.1 Is the person proposing the action an organisation or business?

☑ Yes ☐ No

Organisation

Organisation name (as registered for ABN/ACN)	WESTERN REGION WATER CORPORATION
Business name	
ABN	67433835375
ACN	
Business address	36 Macedon St, Sunbury, 3429, VIC, Australia
Postal address	
Main Phone number	1300 650 422
Fax	
Primary email address	mail@westernwater.com.au
Secondary email address	

9.1.2 I qualify for exemption from fees under Regulation 5.23(1)(ii) of the EPBC Regulations because I am:

☐ Small business
☑ Not applicable

9.1.2.2 I would like to apply for a waiver of full or partial fees under Regulation 5.21A of the EPBC Regulations

☐ Yes ☑ No

9.1.3 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name	Warren
Last name	Price
Job title	Western Irrigation Network – Project Manager
Phone	
Mobile	
Fax	
Email	Warren.Price@westernwater.com.au
Primary address	PO Box 2371, Sunbury DC, 3429, VIC, Australia
Address	

Declaration: Person proposing the action (To be signed by the person at 9.1.3)

I, Warren Price on behalf of Western Region 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.**

Signature: ..... Date: 03/06/2021

I, Warren Price on behalf of Western Region Water Corporation **, the person proposing the action, consent to the designation of** Warren Price on behalf of Western Region Water Corporation **as the proponent for the purposes of the action described in this EPBC Act Referral.**

Signature:.....Date: 03/06/2021

Australian Government
Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Proposed designated proponent

9.2.1 Is the proposed designated proponent an organisation or business?

☑ Yes ☐ No

Organisation

Organisation name (as registered for ABN/ACN)	WESTERN REGION WATER CORPORATION
Business name	
ABN	67433835375
ACN	
Business address	36 Macedon St, Sunbury, 3429, VIC, Australia
Postal address	
Main Phone number	1300 650 422
Fax	
Primary email address	mail@westernwater.com.au
Secondary email address	

9.2.2 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name	Warren
Last name	Price
Job title	Western Irrigation Network – Project Manager
Phone	0439 560 946
Mobile	
Fax	
Email	Warren.Price@westernwater.com.au
Primary address	PO Box 2371, Sunbury DC, 3429, VIC, Australia
Address	

Declaration: Proposed Designated Proponent

I, Warren Price on behalf of Western Region Water Corporation **,the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.**

Signature: ..... **Date:** 03/06/2021 .....

Australian Government
Department of Agriculture, Water and the Environment

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Referring party (person preparing the information)

9.3.1 Is the referring party an organisation or a business?

☑ Yes ☐ No

Organisation

Organisation name (as registered for ABN/ACN)	WESTERN REGION WATER CORPORATION
Business name	
ABN	67433835375
ACN	
Business address	36 Macedon St, Sunbury, 3429, VIC, Australia
Postal address	
Main Phone number	1300 650 422
Fax	
Primary email address	mail@westernwater.com.au
Secondary email address	

9.3.2 Contact (for an organisation - the contact details of the person authorised to sign on behalf of the organisation)

First name	Warren
Last name	Price
Job title	Western Irrigation Network – Project Manager
Phone	0439 560 946
Mobile	
Fax	
Email	Warren.Price@westernwater.com.au
Primary address	PO Box 2371, Sunbury DC, 3429, VIC, Australia
Address	

Declaration: Referring party (person preparing the information)

I, Warren Price **, 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.**

Signature: ..... **Date:** 03/06/2021

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Appendix A

Attachment

Document Type	File Name
action_area_images	App_1_Western Irrigation Network_Overview Map.pdf
action_area_images	App_2_Proposed PBID Infrastructure_Project Area Map.pdf
action_area_images	App_3_Native Vegetation_Threatened Flora_Communities Map.pdf
action_area_images	App_4_Threatened Fauna Habitat_SLL Survey Location Map.pdf
action_area_images	App_5_Golden Sun Moth Survey Location Map.pdf
action_area_images	App_6_Planning Zones Map.pdf
action_area_images	App_7_Planning Overlays_Map.pdf
supporting_tech_reports	App_8_Ecological Assessment Report.pdf
hydro_investigation_files	App_9_Waterways and Wetlands Map.pdf
hydro_investigation_files	App_10_Registered Historical Places Map.pdf
hydro_investigation_files	App_11_Areas of Cultural Heritage Sensitivity Map.pdf
hydro_investigation_files	App_12_Public Land Tenure Map.pdf
corp_env_policy_docs	App_13_Environmental Policy_2018.pdf
corp_env_policy_docs	App_14_Environmental Management System_2020.pdf

Appendix B

Coordinates

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Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

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