

Jacana sewage flow control (SFC) and emergency relief structure (ERS) on the Upper Moonee Ponds Main Sewer

Application Number: **02480** Commencement Date: **26/06/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Jacana sewage flow control (SFC) and emergency relief structure (ERS) on the Upper Moonee Ponds Main Sewer

1.1.2 Project industry type *

Waste Management (sewerage)

1.1.3 Project industry sub-type

—

1.1.4 Estimated start date *

01/04/2025

1.1.4 Estimated end date *

30/09/2025

1.2 Proposed Action details

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

The proposed action is the construction of the Yarra Valley Water: Jacana sewage flow control (SFC) and emergency relief structure (ERS) on the Upper Moonee Ponds Main Sewer.

Site description

The proposed action is located within the suburb of Broadmeadows across two locations:

- 34477.725 m2 within Jacana Reserve, Lot 1 PS814081 139-157 and
- 6547.035 m2 Johnstone Street Jacana 3047 Lot 2 TP868996, Karin Crescent Glenroy 3046

The proposed activities for the Jacana SFC and ERS Project, involve the following:

- Temporary construction access road.
- Construction of culvert across drainage line at the SFC site (construction methods to be confirmed, with expected impact to be ~20 m wide).
- Construction of below ground sewage storage structure.
- Construction of ERS.

The objectives of the proposed assets are:

- Provide a belowground sewage storage structure to contain 1-in-5-year wet weather flows in the Upper Moonee Ponds Creek Main Sewer.
- Minimise surcharge in the Upper Moonee Ponds Creek Main Sewer and maintain a minimum of at least 1 metre freeboard during 1-in-5-year wet weather events.
- Provide an emergency flow control structure as a controlled spill point that mitigates uncontrolled spills from Upper Moonee Ponds Creek Main Sewer.
- Optimise the control philosophy to maximise the use of the existing Greenvale Sewage Flow Control Facility (SFC025) and minimise the size required at Jacana SFC.

To achieve the above objectives, the following key assets are proposed:

- 1.55 ML below ground, reinforced concrete storage tank.
- New gauging station at existing maintenance hole UMP69 to replace downstream SGS556.
- DN750 storage fill and drain pipework and connecting maintenance holes.
- Isolation valves.
- Instrumentation and power supply.
- Emergency Relief Structure at UMP59A comprising DN750 pipeline, maintenance holes, instrumentation, discharge non-return flap valve, discharge structure at the Moonee Ponds Creek.
- Bolt down maintenance hole lids below ~RL 70m AHD to prevent unwanted surcharge during events that exceed 1-in-5-year wet weather event.

The Project area = 4.103 ha across two sites (Southern site 0.655 ha and Northern site 3.447 ha). A total of 1.95 ha of native vegetation was recorded within the Project area and the extent of native vegetation required to be removed for the proposed Action is 0.090 ha.

Further description of the project and the consideration of environmental impacts is provided in the following sections of this referral and are also detailed in the attached Jacana Reserve SFC and ERS: Ecological Impact Assessment report:

- Project description (Section 1.2, Page 1)
- Project area/disturbance area (Section 1.3, Page 1 and Figure 1-1, Page 2)
- Proposed works and potential impacts (Section 4.1, Page 15)
- Ecological values mapping with native vegetation loss Figures 3-2 and 3-3, Pages 11-12)
- Page 18 Table 4-2 Extent of native vegetation mapped within the Project area compared to the total extent cleared

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

No

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

The Commonwealth and State approvals anticipated to be required for the Project are outlined below. This list is not exhaustive and further approval requirements may present themselves throughout detailed design and later stages of the Project.

Relevant Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999

This referral has been prepared to seek a decision by the Minister for the Environment under the *EPBC Act*.

A Matters of National Environmental Significance Assessment has been undertaken to assess the impacts of the Project on MNES and to support this *EPBC Act* referral. The MNES Assessment has been prepared to document the methods and findings of the ecological investigations undertaken to date, outline any potential impacts on MNES and present the implications under the *EPBC Act* (see attached Jacana Reserve SFC and ERS: Ecological Impact Assessment, Jacobs 2024).

The Project is proposing to impact the following EPBC Act MNES as determined by a significant impact assessment:

- **Growing Grass Frog *Litoria raniformis* – Vulnerable species under the EPBC Act:**

Access to the proposed construction SFC site requires the construction of a temporary crossing (culvert) over a drainage line that has been identified as potential breeding habitat for Growing Grass Frog at the SFC site. Due to numerous records and known populations of Growing Grass Frog within Moonee Ponds Creek and Jacana Wetlands (DEECA 2023), species presence is assumed within the forementioned drainage line, thus no targeted surveys have been conducted.

Construction of proposed temporary culvert requires the removal of terrestrial and aquatic vegetation. This will directly impact on 0.029 ha of potential habitat for the species.

Relevant State Legislation

Aboriginal Heritage Act 2006

The Project Boundary occurs within the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation Registered Aboriginal Parties (RAP) area.

The proposed Activity for the project is a high impact activity as:

- A utility installation that will affect an area exceeding 25 square metres (Regulation 46(1)(b)(xxvii)(D)).

The project is also located in an area of cultural heritage sensitivity (CHS), in land within 200m of a waterway – Moonee Ponds Creek and Yuroke Creek (Regulation 26).

As such, a mandatory Cultural Heritage Management Plan (CHMP) is required. This is currently being finalised for the project.

Environment Effects Act 1978

An Environment Effects self-assessment was completed and a referral to the Minister is not deemed necessary as the Project is unlikely to have a significant effect on the environment.

Flora and Fauna Guarantee Act 1988

Fauna: Although no targeted surveys were conducted for the species, Growing Grass Frog presence is assumed within the drainage line within the proposed Action area. The proposed works may result in a significant impact to the species.

Flora: No threatened or protected flora will be impacted as a result of the proposed Action, noting that the occurrence of Fragrant Saltbush (*Rhagodia parabolica*) located adjacent to and not within, the proposed Action area is of planted specimens only. A 'permit to take' under the FFG Act is not required.

Communities: No threatened ecological communities will be impacted as a result of the proposed Action.

Planning and Environment Act 1987

Areas of native vegetation that are to be removed or impacted due to the Proposed Action, require approval from the Hume City Council and Merri-bek City Council Planning Schemes.

The following planning permits are required:

- A permit is required under the Hume Planning Scheme for partial removal of one patch of native vegetation (0.0289 ha of EVC 641) under the following schedules:
- Schedule 1 to Clause 42.03 Significant Landscape Overlay (SLO1) - Waterways of the West: Moonee Ponds Creek (Moonee Moonee) Corridor Environs: Reach 3 - Strathmore to Urban Growth Boundary Attwood.
- Schedule 2 to Clause 42.01 Environmental Significance Overlay (ESO2) - Merri Creek and Moonee Ponds Creek and Environs.
- A permit is required under the Merri-bek Planning Scheme for partial removal of three patches of native vegetation (0.0613 ha composed of 0.0216 ha of EVC 55 and 0.0397 ha of EVC 821) under the following schedules:

- Schedule 2 to Clause 42.03 Significant Landscape Overlay (SLO2), Waterways of the West: Moonee Ponds Creek (Moonee Moonee) Corridor Environs Reach 3 – Strathmore to Urban Growth Boundary Attwood.
- Schedule 2 to Clause 42.01 Environmental Significance Overlay (ESO2), Moonee Ponds Creek and Environs (Includes Melville Creek).
- Permits are required for the above native vegetation, under Clause 52.17 of the Hume Planning Scheme and Merri-bek Planning Scheme. Offsets are required to be identified and secured within the Melbourne Water Catchment Management Authority (CMA) or Merri-bek City Council and/or Hume city Council prior to construction.

Note: as less than 0.5 ha of native vegetation is proposed to be removed, YVW may seek written approval from DEECA to obtain exemptions for native vegetation removal under the Procedure to Rely on Utility Installations Exemptions in Planning Schemes (DELWP, 2020).

Guidelines for the removal, destruction or lopping of native vegetation (The Guidelines)

- Offsets are required for the removal of 0.090 ha of native vegetation patches.
- Offsets required are 0.024 general habitat units with a minimum strategic biodiversity score of 0.227 in the vicinity of Melbourne Water Catchment Management Authority (CMA) or Merri-bek City Council and/or Hume City Council.
- Yarra Valley Water is to secure these offsets prior to commencing works.

Catchment and Land Protection Act 1994 (CaLP Act)

- The proposed works require the disturbance of soil and the movement of a variety of vehicles and machinery. These activities encourage the spread and establishment of weed species. Some weed species are declared noxious under the CaLP Act and, as such, the responsible party is legally required to prevent the spread and establishment of these species.
- A CEMP will be developed that clearly identifies measures to be undertaken which will prevent the growth, spread and establishment of noxious weed species. Measures should be identified and undertaken to ensure ongoing weed control and eradication procedures are implemented following any works.

Wildlife Act 1975

A suitably qualified wildlife handler will be hired by YVW for on-site attendance and fauna relocation activities (if required) when removing vegetation and potential habitat during construction to satisfy requirements of the *Wildlife Act 1975*.

Water Act 1989

Melbourne Water Catchment Management Authority (CMA) is the responsible authority for the control, management, and authorisation of works and activities in or over Designated Waterways in the Project area. YVW will review Melbourne Water's *Waterway Corridors Guidelines for greenfield development areas within the Port Phillip and Westernport Region* guidelines to ensure that the Project is satisfying requirements

References

DCCEEW (2023). *Protected Matters Search Tool*. <<https://pmst.awe.gov.au>> Department of Climate Change, Energy, the Environment and Water, Government of Australia.

DELWP (2020) *Procedure to rely on the utility installations exemption in planning schemes - Water service providers* Department of Environment, Land, Water and Planning, Government of Victoria.

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

Public consultations to date include:

- Discussions with Hume City Council, Merri-bek City Council, Melbourne Water and The Department of Transport and Planning.

Discussions with these entities include online and onsite meetings, of which all do not have minutes. In summary:

- Melbourne Water undertook site walks with YVW (see “Minutes Jacana SFC site visit” attached). This resulted in a consent for access to land for SFC construction (see “Melbourne Water Access Consent” attached), the land use agreement is now being finalised. Since then, we have discussed and provided updated drawings for review and approval of the ERS (see “MWA-1286843 Jacana SFC and ERS - Drawing Approval” email attached and attached “email attachment MWA1286843 Jacana SFC and ERS Drawing Approval”).
- Hume City Council undertook site walks with YVW (see “Minutes Jacana SFC site visit” attached) which eventuated in in-principle approval for the SFC construction (see “Hume City Council In-principle Approval” attached). YVW had a meeting with them to discuss permit application requirements (see “Yarra Valley Water Jacana Hume Pre-App Recap” email attached) We have since sent through permit application. (see “YVW Jacana SFC Planning Permit Application 139-157 Johnstone Street” email attached).
- Merri-bek City Council met with us online to discuss requirements of the planning permit. Planning permit has since been lodged (“FW EXTERNAL Merri-bek City Council - Planning Permit Application Lodgement” email attached and Merri-bek City Council - Planning Permit Application).
- Department of Transport was engaged to determine access to ERS site via M80 Access Track which they have agreed to in principle (see “DoT Email” attached)
- These entities have been presented with the proposed construction plans and footprint
- In principle approvals for land use have been given by Melbourne Water and Hume City Council that are yet to be finalised.
- principle approval has been given by Department of Transport for use of their service road along Metropolitan Ring Road M80 during construction activities
- Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation have been consulted in relation to development of a Cultural Heritage Management Plan which is being finalised

CHMP has since been finalised and approved (See Cultural Heritage Management Plan Approval Letter” Attached)

Public consultations planned to be undertaken include:

- Friends of Moonee Ponds Creek and Chain of Ponds community groups
- Bicycle Network
- Jacana Cricket Club
- Residents in the vicinity of the reserve

1.3.1 Identity: Referring party

Privacy Notice:

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

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

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

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint.

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

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

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

| | |
|-----------------------------|--|
| ABN/ACN | 37001024095 |
| Organisation name | JACOBS GROUP (AUSTRALIA) PTY LTD |
| Organisation address | 452 Flinders Street, Melbourne, 3000, VIC, Australia |

Referring party details

| | |
|------------------|--------------------|
| Name | Tao Lee |
| Job title | Ecologist |
| Phone | 0431181466 |
| Email | tao.lee@jacobs.com |
| Address | 452 Flinders St |

1.3.2 Identity: Person proposing to take the action

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

No

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

Yes

Person proposing to take the action organisation details

| | |
|-----------------------------|---|
| ABN/ACN | 93066902501 |
| Organisation name | Yarra Valley Water Corporation |
| Organisation address | Private Bag 1, Mitcham, 3132, Victoria, Australia |

Person proposing to take the action details

| | |
|------------------|--|
| Name | Tashdid Tahmid |
| Job title | YVW Project Manager, Asset Growth Projects |
| Phone | +61398721578 |
| Email | tashdid.tahmid@yvw.com.au |
| Address | 25 Lucknow St, Mitcham VIC 3132 |

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

No

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

No

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

YVW has established a commendable history of responsible environmental management, underscored by a commitment to sustainable development and corporate responsibility. Over the past decade, YVW has only faced a limited number of infringement notices, which speaks to its proactive approach in managing environmental impacts, especially given the scale of its services to nearly 2 million people. This track record is enhanced by YVW's commitment to the United Nations Global Compact, which aligns the corporation with international sustainability standards.

Environmental Proceedings

While YVW maintains a satisfactory record, there have been a few incidents that required regulatory attention:

- YVW received an EPA Penalty Infringement Notice of \$7,773 for a sewage spill that occurred in Don Road, Healesville on 13 March 2017. A broken and blocked pipe allowed an estimated 37,000 litres of sewage to spill into a local waterway. YVW undertook extensive clean-up work and water quality monitoring of the waterway and conducted CCTV inspection of the sewage pipe which confirmed the tree root intrusion and cracked piping.
- YVW was prosecuted and made an infringement payment of \$80,000 for an incident in Chirnside Park, Victoria on 4-6 July 2016. YVW implemented wet-wipe public notices and education programs in response.
- YVW was prosecuted for accidental sewage discharge to a creek in Warrandyte South in May 2009. At the sewerage pump station, both pumps and the emergency generator failed, causing the emergency storage to fill and overflow resulting in approximately 115,000 litres discharged into the creek.

Previous Proposals

2018/8312 Mickleham and Craigieburn Rd DW and NDW

2018/8174 YVW Corporation/Energy Generation and Supply (renewable)/Lot 1, TP125400/Victoria/Lilydale Waste to Energy facility, Lilydale, Vic

2016/7818 - YVW Corporation/Water Management and Use/Appox. 4km northwest of Crigieburn and approx. 30km from Melbourne CBD/Victoria/Aitken Blvd North Drinking Water and Non-Drinking Water Mains, Vic

2015/7528 - YVW/Waste Management (sewerage)/3km west of Epping/Victoria/Epping Branch sewer Stage 4B, Victoria

2014/7370 - YVW Corporation/Waste management (sewerage)/between Donnybrook Rd & Craigieburn Sewage Treatment Plant/VIC/Amaroo Main Sewer Project,Vic

2013/6823 - YVW/Water Management and Use/Approximately 35km north of the Melbourne CBD/Victoria/Installation of the Mt Ridley Road West Water Mains (M703 & R004) and associated infrastructure

2011/6190 - YVW/Water Management and Use/Approx 30km north of Melbourne/Victoria/Kalkallo Class A Recycled Water Distribution Mains

2010/5653 - YVW/Waste Management (sewerage)/Beveridge, 40km N of Melbourne & Wallan 45km N of Melbourne/Victoria/Beveridge Wallan Infrastructure Project

2008/4608 - YVW/Waste Management (sewerage)/Craigieburn, adjacent to the Cragieburn Bypass/Victoria/Pipeline to link Craigieburn Sewerage Treatment Plant to new Aurora recycled sew

2008/4597 - YVW/Waste management (sewerage)/Cooper Street, Epping/VIC/Geotechnical Drilling Research for the Sewer Alignment for the Melbourne Wholesale Fruit and Vegetable Markets

2008/4315 - YVW Ltd/Waste management (sewerage)/Horne Street Shaft site and Freeway Shaft Site Campbellfield/VIC/Sewerage Tunnel and Shafts Upgrade

2008/4042 - YVW/Water management and use/Yuroke and Greenvale, Melbourne/VIC/Water Supply Mains

2004/1505 - YVW Limited/Waste management/Craigieburn/VIC/Cessation or Reduction of Flows from Sewage Treatment Plant

2004/1503 - YVW Limited/Waste management/Craigieburn/VIC/Construction of sewerage pipeline from Craigieburn Sewage Treatment Plant to Melbourne metropolitan sewerage system

2004/1351 - YVW/Waste Management (sewerage)/Mernda/Victoria/Mernda South Sewerage Pipeline

2004/1350 - YVW Limited/Waste management/Mernda/VIC/Mernda North Sewerage Strategy, Mernda-Doreen

2002/601 - YVW Limited/Waste management/Craigieburn/VIC/Craigieburn Sewage Treatment Plant Decommission

2001/459 - YVW/Waste Management (sewerage)/Bundoora/Victoria/Bundoora Sewage Flow Control Facility

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

YVW has developed the following system which is regularly audited to ensure operations are managed and maintained to a high standard of environmental performance. This will apply to the project and used to ensure the site is appropriately managed (see attached "Integrated Management System Policy")

Also attached is the "Intergrated Management Systems Manual" for in-depth details, if required.

1.3.3 Identity: Proposed designated proponent

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

Yes

Proposed designated proponent organisation details

| | |
|-----------------------------|---|
| ABN/ACN | 93066902501 |
| Organisation name | Yarra Valley Water Corporation |
| Organisation address | Private Bag 1, Mitcham, 3132, Victoria, Australia |

Proposed designated proponent details

| | |
|------------------|--|
| Name | Tashdid Tahmid |
| Job title | YVW Project Manager, Asset Growth Projects |
| Phone | +61398721578 |
| Email | tashdid.tahmid@yvw.com.au |
| Address | 25 Lucknow St, Mitcham VIC 3132 |

1.3.4 Identity: Summary of allocation

☒ Confirmed Referring party's identity

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

| | |
|-----------------------------------|--|
| ABN/ACN | 37001024095 |
| Organisation name | JACOBS GROUP (AUSTRALIA) PTY LTD |
| Organisation address | 452 Flinders Street, Melbourne, 3000, VIC, Australia |
| Representative's name | Tao Lee |
| Representative's job title | Ecologist |
| Phone | 0431181466 |
| Email | tao.lee@jacobs.com |
| Address | 452 Flinders St |

✔ Confirmed Person proposing to take the action's identity

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

| | |
|----------------------------|---|
| ABN/ACN | 93066902501 |
| Organisation name | Yarra Valley Water Corporation |
| Organisation address | Private Bag 1, Mitcham, 3132, Victoria, Australia |
| Representative's name | Tashdid Tahmid |
| Representative's job title | YVW Project Manager, Asset Growth Projects |
| Phone | +61398721578 |
| Email | tashdid.tahmid@yvw.com.au |
| Address | 25 Lucknow St, Mitcham VIC 3132 |

✔ Confirmed Proposed designated proponent's identity

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

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

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

No

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

No

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

No

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

No

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

No

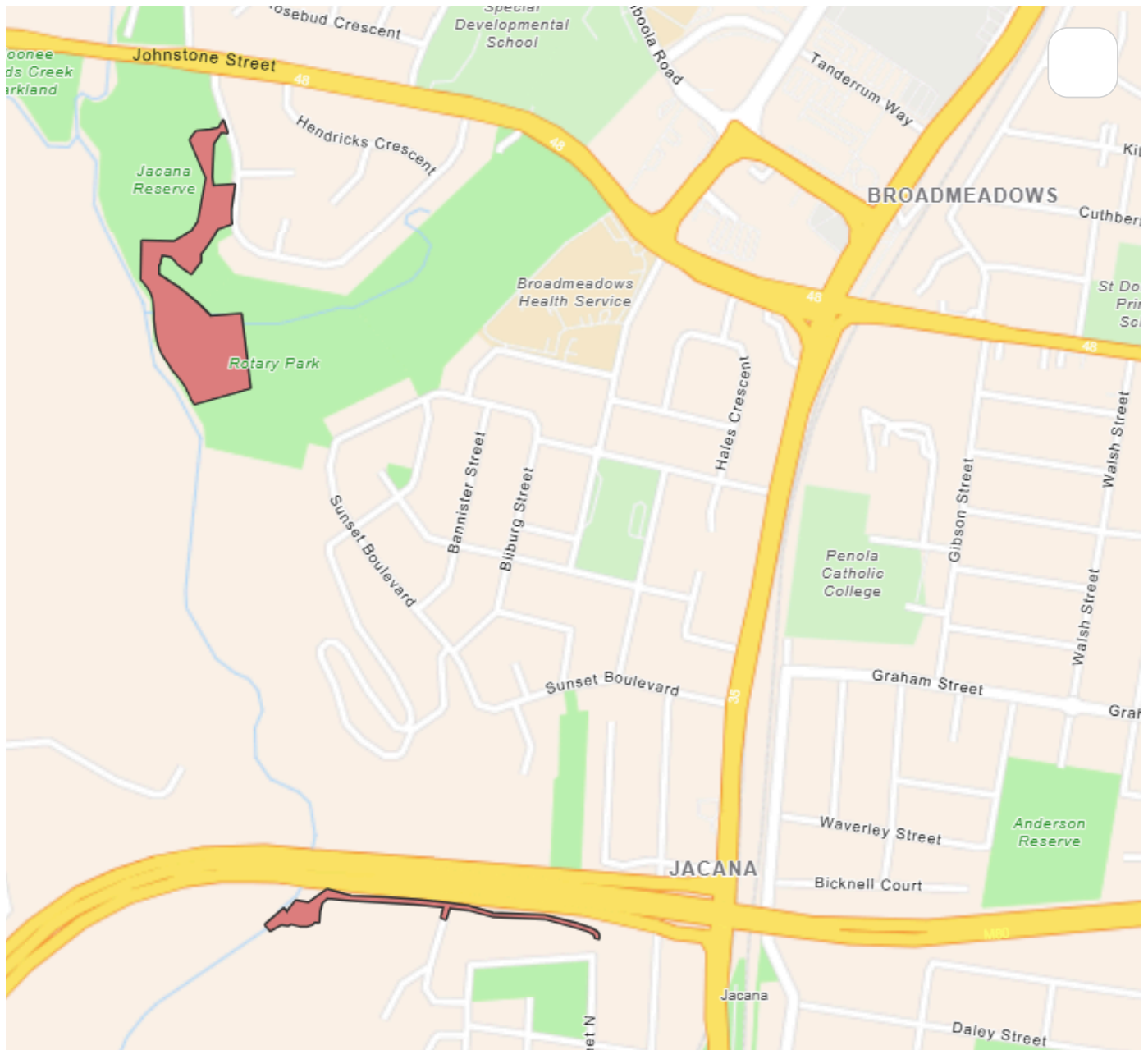
1.4 Payment details: Payment allocation**1.4.11 Who would you like to allocate as the entity responsible for payment? ***

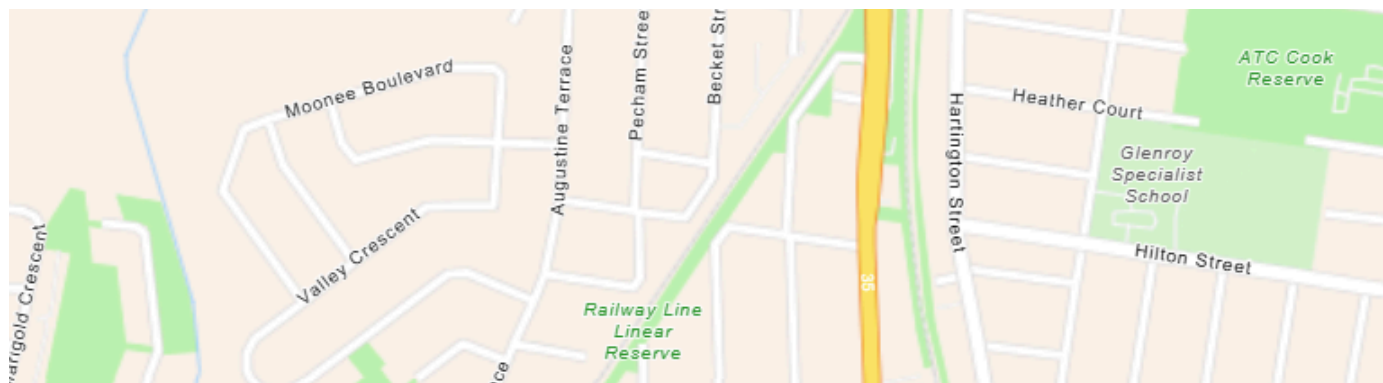
Person proposing to take the action

2. Location

2.1 Project footprint

Project area (3.95 Ha) Disturbance footprint (3.95 Ha)





Maptaskr © 2025 -37.696895, 144.904681

Powered By Esri - Sources: Esri, TomTom, Garmin, FAO, N...

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Northern portion:139-157 Johnstone Street Jacana 3047. Southern portion: Karin Crescent Glenroy 3046

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

Victoria

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

No

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

All land tenure of the proposed action is Freehold land.

Address: Karin Crescent, Glenroy, 2\TP868996 , Owner: Melbourne Water Corporation

Address: Johnstone Street Jacana 3047, 1\PS814081, 139-157, Owner Melbourne Water Corporation

3. Existing environment

3.1 Physical description

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

The Project area is located within the suburb of Broadmeadows Victoria. The proposed sewer alignments are predominantly located within the existing Jacana Reserve which is bound by residential housing and recreational land use.

The proposed ERS is located south of the Western Ring Road, intersecting areas of the Jacana Southern Wetlands and will comprise of a DN750 pipeline and below ground storage tank, with ancillary components of the ERS including power cabling and vehicle access from Becket Street North, Glenroy. This portion of the Project is subject to the Merri-bek Planning Scheme and intersects the following Zones: Clause 36.01 Public Use Zone 1 – Service and Utility (PUZ1) and Clause 36.04 Transport Zone 2 (TRZ2).

The proposed 2 ML SFC is located within Jacana Reserve near Lorraine Crescent, and used to store wet weather flows, where stored sewage will be released to the downstream Moonee Ponds Main Sewer. This portion of the Project is subject to the Hume Planning Scheme Clause 36.01 Public Use Zone – Service and Utility (PUZ1) and Clause 36.02 Public Park and Recreation Zone (PPRZ).

Significant tracts of native vegetation are present along the Moonee Ponds Creek system. The Project area, and surrounds, span an area within both the Hume City and Merri-bek Local Government Areas (LGA) and occurs within the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation Registered Aboriginal Parties (RAP) area. The Project area also falls within the Victorian Volcanic Plain bioregion and Port Phillip and Westernport Catchment Management Authority (Melbourne Water).

The majority of the Project area comprises a mown grassland of exotic grasses, interspersed with patches of planted vegetation (indigenous and non-indigenous) and amenity trees. Higher quality indigenous vegetation is present in association with wetlands and the creek-line, though this is largely established from revegetation.

Three Ecological Vegetation Classes (EVCs), Riparian Woodland (EVC 641), Plains Grassy Woodland (EVC 55) and Tall Marsh (EVC 821) were identified within the Project area, consisting of six patches of which three occur within the Project area. Habitat scores ranged from 26–29% of benchmark condition and no Large Canopy Trees were recorded.

Twenty-five threatened flora species have been previously recorded within 5 km of the Project area on the Victorian Biodiversity Atlas (VBA) and 14 species are modelled to potentially occur within 5 km of the Project area by the Protected Matters Search Tool (PMST). Following field survey, it was determined that 32 of these threatened flora species have a low likelihood of occurring, six were determined to be outside of their natural geographic range (and therefore are not considered further) and one species—Fragrant Saltbush (*Rhagodia parabolica*)—was recorded adjacent to the Project area, however all six individuals have been planted or naturalised from plantings.

Thirty-four threatened fauna species have been previously recorded within 5 km of the Project area (VBA) and 19 species are modelled to potentially occur within 5 km of the Project area (PMST). Of these 34 species, 17 are considered to have a moderate or high likelihood of occurrence within the Project area. However, sixteen of these species are considered to have a low likelihood of being impacted by the Project; only one species is considered to have a high likelihood of being impacted by the proposed works, the Growling Grass Frog (*Litoria raniformis*) (listed as vulnerable under the EPBC Act and FFG Act).

A proportion of the Project area runs adjacent to the Moonee Ponds Creek and Jacana Wetlands, an important habitat corridor that links native vegetation throughout the wider area. Providing habitat for a variety of wetland birds and other aquatic species, these waterways also provide habitat for the threatened (EPBC and FFG vulnerable) Growling Grass Frog.

Due to numerous records and known populations of Growling Grass Frog within Moonee Ponds Creek and Jacana Wetlands (DEECA 2023a), species presence is assumed within the drainage line within the Project area, thus no targeted surveys have been conducted.

References

DEECA (2023). *Victorian Biodiversity Atlas*. 2023, <<https://vba.dse.vic.gov.au/vba/#/>> Department of Energy, Environment and Climate Action, Government of Victoria.

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

The Project area falls within the following zones: PUZ1, TRZ2 and PPRZ. The existing purpose for the Project area is public use, sports, and recreation. Moonee Ponds Creek Trail is also located within and adjacent to the Project area which used by pedestrian and bike riders.

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

The Project area is located adjacent to the Moonee Ponds Creek system and north of the Jacana Wetlands.

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

The land is predominantly flat with no significant gradient or slope occurring within the Project area. East of the SFC site toward Rotary Park has an upward slope outside of the Project area, which is steep in sections.

3.2 Flora and fauna

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

The Jacana Reserve SFC and ERS: Ecological Impact Assessment (Jacobs, 2024) (see attached 'Jacana Reserve SFC and ERS: Ecological Impact Assessment') provides a description of the flora (see attached 'Jacana Reserve SFC and ERS: Ecological Impact Assessment', Pages | 5-6, Section 3.1) and fauna (see attached 'Jacana Reserve SFC and ERS: Ecological Impact Assessment', Pages | 6-10, Section 3.2) relevant to the Project area. A list of threatened fauna species that have a moderate to high likelihood of occurrence within the Project area and their likelihood of impact are provided in the attached "List of threatened fauna species" that have a moderate to high likelihood of occurrence within the Project area.

The majority of the Project area comprises a mown grassland of exotic grasses, interspersed with patches of planted vegetation (indigenous and non-indigenous) and amenity trees. Higher quality indigenous vegetation is present in association with wetlands and the creek-line, though this is largely established from revegetation.

Three Ecological Vegetation Classes (EVCs) Riparian Woodland (EVC 641), Plains Grassy Woodland (EVC 55) and Tall Marsh (EVC 821) were identified within the Project area, consisting of six patches of which three occur within the Project area (see attached 'Jacana Reserve SFC and ERS: Ecological Impact Assessment', Pages | 5-6, Section 3.1 and Pages | 11-12, Figures 3-2 and 3-3 Native Vegetation patches, planted vegetation and Growling Grass Frog habitat within the Project area).

No listed EPBC Act Threatened Ecological Communities (TECs) were recorded within the Project area.

A proportion of the Project area runs adjacent to the Moonee Ponds Creek and Jacana Wetlands, an important habitat corridor that links native vegetation throughout the wider area. Providing habitat for a variety of wetland birds and other aquatic species, these waterways also provide habitat for the threatened (EPBC and FFG vulnerable) Growling Grass Frog (*Litoria raniformis*) (see attached 'Jacana Reserve SFC and ERS: Ecological Impact Assessment', Pages | 6-10, Section 3.2 and Pages | 11-12, Figures 3-2 and 3-3 Native Vegetation patches, planted vegetation and Growling Grass Frog habitat within the Project area).

Patches of vegetation and large trees within, and alongside, the Project area, also provide important habitat corridors for fauna within a residential landscape (see attached 'Jacana Reserve SFC and ERS: Ecological Impact Assessment', Pages | 11-12, Figures 3-2 and 3-3 Native Vegetation patches, planted vegetation and Growling Grass Frog habitat within the Project area).

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

The ecological investigations within the Project area, identified remnant native vegetation. A total of 1.95 ha (6 patches) of native vegetation was recorded within the Project area. EVCs recorded within the Project area are described below and can be seen in Figure 3-2 and Figure 3-3 (pages 11 and 12) in the attached Jacana Reserve SFC and ERS: Ecological Impact Assessment (Jacobs, 2024).

Riparian Woodland (EVC 641)

Riparian Woodland within the Project area was associated with wetland and creek-line verges. Patches generally supported an indigenous canopy of River Red-gum (*Eucalyptus camaldulensis*) over a species poor understory. Commonly occurring native species included Blackwood (*Acacia melanoxylon*), Bidgee-widgee (*Acaena novae-zelandiae*), Gold-dust Wattle (*Acacia acinaceae*), Hop Goodenia (*Goodenia ovata*) and Common Tussock-grass (*Poa labillardierei* var. *labillardierei*). Exotic species were common. This EVC has a conservation status of Endangered within the bioregion.

Plains Grassy Woodland (EVC 55)

Within the Project area Plains Grassy Woodland was largely comparable to Riparian Woodland, though without the wetland/riparian floristic influence. This vegetation was dominated by River-red Gum and maintained a high cover of exotic species in the understory. This EVC has a conservation status of Endangered within the bioregion.

Tall Marsh (EVC 821)

A patch of Tall Marsh was recorded within the creek-line in the southern Project area. This vegetation comprised a dense sward of Common Reed (*Phragmites australis*) with low cover of other herbaceous species (native and exotic). This EVC has a conservation status of Endangered within the bioregion.

3.3 Heritage

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

After completing required database searches for the Study Area for the project IS0803SW-Jacana, below is a statement regarding the results:

Historical (Commonwealth Register):

A search of the Australian Heritage Database was conducted on the 23 August 2024 by Carly Skinner (Graduate Archaeologist, Jacobs) and has found that there are currently no Historic Heritage Places on the Commonwealth Heritage List, National Heritage List or the World Heritage List for this Study Area.

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

After completing required database searches for the Study Area for the project IS0803SW-Jacana, below is a statement regarding the results:

Aboriginal Cultural Heritage:

The most updated assessment of the Aboriginal cultural heritage present in the area was prepared as part of the Cultural Heritage Management Plan (CHMP) 18368 for this project - IS0803SW Reserve Sewerage Flow Control (SFC) and Emergency Relief System (ERS). As part of the preparation of the CHMP, an updated search of the Victorian ACHRIS database was performed by Bridget Grinter on 8 August 2024. The results of this search showed there are no Aboriginal Places located within the Project area or within 50 m of the Project area. During both Standard and Complex testing for this CHMP, the Study Area was assessed as having low potential for Aboriginal cultural heritage, and there was no new Aboriginal cultural heritage was identified.

There are also no Indigenous Heritage Places listed on the Commonwealth Heritage List, National Heritage List or the World Heritage List for the Study Area. Therefore, there is currently no Aboriginal cultural heritage registered for this Study Area.

Please note:

This CHMP was submitted to Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation, the Registered Aboriginal Party (RAP), for evaluation on the 21 August 2024. Should the RAP not accept the submission, the information here may change.

3.4 Hydrology

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

The SFC site is located to the south of Johnstone St. The Project area is bounded by Jacana reserve to the north, grassland which forms part of the Moonee Ponds Creek catchment to the east and south and a Melbourne Water wetland area and Moonee Ponds Creek to the west. The terrain at the site is characterised by the Moonee Ponds Creek valley which inclines upwards from the site location towards the east. The majority of the site is relatively flat with a gentle decline from west to east towards the creek, apart from the eastern side of the site, which intersects with the steep valley slope.

A review of state-wide publicly available information has indicated that the project will intersect the Quaternary Alluvium and Melbourne Formation aquifers. The watertable is likely to be between less than 5 m and up to 10 m below natural surface. The two aquifers support a number of potentially groundwater dependent ecosystems locally (such as Moonee Ponds Creek, adjacent to the Project area), however no groundwater users have been identified in the vicinity of the site.

4. Impacts and mitigation

4.1 Impact details

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

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

| EPBC Act section | Controlling provision | Impacted | Reviewed |
|------------------|---------------------------------------|----------|----------|
| S26 | Commonwealth Land | No | Yes |
| S27B | Commonwealth Heritage Places Overseas | No | Yes |
| S28 | Commonwealth or Commonwealth Agency | No | Yes |

4.1.1 World Heritage

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

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

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

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

No

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

There are no World Heritage properties located within or close to the project area.

4.1.2 National Heritage

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

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

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

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

No

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

There are no National Heritage places located within or close to the project area.

4.1.3 Ramsar Wetland

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

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

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

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

No

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

There are no Ramsar Wetlands located within or close to the project area.

4.1.4 Threatened Species and Ecological Communities

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

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

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

Threatened species

| Direct impact | Indirect impact | Species | Common name |
|---------------|-----------------|--|---|
| No | No | <i>Amphibromus fluitans</i> | River Swamp Wallaby-grass, Floating Swamp Wallaby-grass |
| No | No | <i>Anthochaera phrygia</i> | Regent Honeyeater |
| No | No | <i>Aphelocephala leucopsis</i> | Southern Whiteface |
| No | No | <i>Aprasia parapulchella</i> | Pink-tailed Worm-lizard, Pink-tailed Legless Lizard |
| No | No | <i>Botaurus poiciloptilus</i> | Australasian Bittern |
| No | No | <i>Calidris acuminata</i> | Sharp-tailed Sandpiper |
| No | No | <i>Calidris ferruginea</i> | Curlew Sandpiper |
| No | No | <i>Callocephalon fimbriatum</i> | Gang-gang Cockatoo |
| No | No | <i>Climacteris picumnus victoriae</i> | Brown Treecreeper (south-eastern) |
| No | No | <i>Dasyurus maculatus maculatus</i> (SE mainland population) | Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) |
| No | No | <i>Delma impar</i> | Striped Legless Lizard, Striped Snake-lizard |
| No | No | <i>Dianella amoena</i> | Matted Flax-lily |
| No | No | <i>Diuris fragrantissima</i> | Sunshine Diuris, Fragrant Doubletail, White Diuris |
| No | No | <i>Dodonea procumbens</i> | Trailing Hop-bush |
| No | No | <i>Falco hypoleucos</i> | Grey Falcon |
| No | No | <i>Gallinago hardwickii</i> | Latham's Snipe, Japanese Snipe |
| No | No | <i>Glycine latrobeana</i> | Clover Glycine, Purple Clover |
| No | No | <i>Grantiella picta</i> | Painted Honeyeater |
| No | No | <i>Hirundapus caudacutus</i> | White-throated Needletail |
| No | No | <i>Lathamus discolor</i> | Swift Parrot |
| No | No | <i>Lepidium aschersonii</i> | Spiny Peppercress |
| No | No | <i>Lepidium hyssopifolium</i> | Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed |
| No | No | <i>Leucochrysum albicans</i> subsp. <i>tricolor</i> | Hoary Sunray, Grassland Paper-daisy |
| No | No | <i>Lissolepis coventryi</i> | Swamp Skink, Eastern Mourning Skink |
| Yes | No | <i>Litoria raniformis</i> | Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog |
| No | No | <i>Melanodryas cucullata cucullata</i> | South-eastern Hooded Robin, Hooded Robin (south-eastern) |

| Direct impact | Indirect impact | Species | Common name |
|---------------|-----------------|--------------------------------------|--|
| No | No | Nannoperca obscura | Yarra Pygmy Perch |
| No | No | Neophema chrysostoma | Blue-winged Parrot |
| No | No | Numenius madagascariensis | Eastern Curlew, Far Eastern Curlew |
| No | No | Pedionomus torquatus | Plains-wanderer |
| No | No | Petaurus australis australis | Yellow-bellied Glider (south-eastern) |
| No | No | Pimelea spinescens subsp. spinescens | Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea |
| No | No | Prasophyllum suaveolens | Fragrant Leek-orchid |
| No | No | Prototroctes maraena | Australian Grayling |
| No | No | Pseudomys novaehollandiae | New Holland Mouse, Pookila |
| No | No | Pteropus poliocephalus | Grey-headed Flying-fox |
| No | No | Pterostylis chlorogramma | Green-striped Greenhood |
| No | No | Pterostylis cucullata | Leafy Greenhood |
| No | No | Rostratula australis | Australian Painted Snipe |
| No | No | Rutidosia leptorhynchoidea | Button Wrinklewort |
| No | No | Senecio macrocarpus | Large-fruit Fireweed, Large-fruit Groundsel |
| No | No | Stagonopleura guttata | Diamond Firetail |
| No | No | Synemon plana | Golden Sun Moth |
| No | No | Thelymitra orientalis | Hoary Sun-orchid |
| No | No | Tringa nebularia | Common Greenshank, Greenshank |
| No | No | Xerochrysum palustre | Swamp Everlasting, Swamp Paper Daisy |

Ecological communities

| Direct impact | Indirect impact | Ecological community |
|---------------|-----------------|--|
| No | No | Grassy Eucalypt Woodland of the Victorian Volcanic Plain |
| No | No | Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia |
| No | No | Natural Temperate Grassland of the Victorian Volcanic Plain |
| No | No | White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland |

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

Yes

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

The Proposed Action will have a direct impact on 0.029 ha of Riparian Woodland within an artificial drainage line, which provides potential habitat for Growling Grass Frog within the Proposed Action area.

No direct or indirect impacts is expected for the four threatened ecological communities listed under the EPBC Act modelled as potentially occurring within the Project area. During the field assessment it was concluded that no threatened ecological communities listed under the EPBC act or FFG Act were present within or immediately adjoining the Project area.

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

Yes

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

Although temporary, the proposed action may have a Significant Impact on Growling Grass Frog (GGF).

Access to the SFC site requires the construction and deconstruction of a temporary crossing (Reinforced Concrete Box Culvert) over an artificial drainage line, identified as potential habitat for GGF. This will have a direct impact on 0.029 ha of riparian woodland within the drainage line, which provides potential habitat for GGF. It is anticipated that potential impacts to GGF will be temporary.

No targeted GGF surveys have been conducted due to numerous records and known populations of GGF within Moonee Ponds Creek (west of the Project area and adjoins the artificial drainage line) and Jacana Wetland (south of the Project area), thus species presence is assumed within the forementioned drainage line.

Potential impacts to Growling Grass Frog and Likelihood of significant impact under the Significant Impacts Guidelines for the vulnerable Growling Grass Frog are summarised in the attached.

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

No

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

A Significant Impact Assessment concluded that impacts to 0.029 ha of potential Growling Grass Frog habitat due to the construction, and deconstruction, of the temporary culvert may result in a significant impact to the species. It is anticipated that potential impacts to Growling Grass Frog resulting from the Proposed Action will be temporary.

Specific Growling Grass Frog mitigation measures outlined in the project's Construction Management Plan included as part of the Proposed Action would avoid impacts to habitat in the surrounding area. The construction period for the Proposed is planned from April to September 2025, which occurs outside the Growling Grass Frog breeding season (November – March). It is also anticipated that there will be a passageway between the drainage line and Moonee Ponds Creek through the temporary culvert once constructed.

Apart from Growling Grass Frog, no other threatened species are considered present based on the findings of the desktop and field assessment as summarised in the ecology assessment (see attached Jacana Reserve SFC and ERS Detailed Ecological Assessment, Section 3.1.2 page 5 and Section 3.2.2 page 7-10 and Appendix B pages 33-46).

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

An extensive design process has been completed in consultation with the Project design team to complete a design that avoids native vegetation removal wherever possible. The extent of vegetation removal will be minimised and limited to the smallest amount necessary to complete the Project works.

Multiple access options to the proposed SFC site were investigated to avoid and minimise impacts to fauna habitat, notably Growling Grass Frog habitat. However, due to construction vehicle requirements and topography, the temporary culvert could not be avoided. The width of the temporary culvert has been designed at minimum width to minimise impact to the drainage line habitat.

Options have been considered to enable construction vehicles to access the Jacana Reserve to undertake construction of the Sewage Flow Control Facility, see attached Jacana Reserve SFC and ERS Detailed Ecological Assessment, Section 4.3, page 17, for further details.

Growling Grass Frog specific mitigation measures are also detailed in the attached Jacana Reserve SFC and ERS Detailed Ecological Assessment, Section 4.5, page 20. Construction mitigation measures include frog exclusion fencing, biosecurity and hygiene protocols, capture and relocation protocols, sediment controls to ensure no direct impacts to nearby populations or areas of potential habitat and revegetation with emphasis on maintaining suitable Growling Grass Frog habitat within the artificial drainage line.

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

- **Offsets are required** for the removal of 0.090 ha of native vegetation patches.
- Offsets required are 0.024 general habitat units with a minimum strategic biodiversity score of 0.227 in the vicinity of Melbourne Water Catchment Management Authority (CMA) or Merri-bek City Council and/or Hume City Council.

Yarra Valley Water is to secure these offsets prior to commencing works. See attached Jacana Reserve SFC and ERS Detailed Ecological Assessment, Appendix C. Native Vegetation Removal Report, page 47.

4.1.5 Migratory Species

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

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

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

| Direct impact | Indirect impact | Species | Common name |
|---------------|-----------------|----------------------------------|------------------------------------|
| No | No | <i>Actitis hypoleucos</i> | Common Sandpiper |
| No | No | <i>Apus pacificus</i> | Fork-tailed Swift |
| No | No | <i>Calidris acuminata</i> | Sharp-tailed Sandpiper |
| No | No | <i>Calidris ferruginea</i> | Curlew Sandpiper |
| No | No | <i>Calidris melanotos</i> | Pectoral Sandpiper |
| No | No | <i>Gallinago hardwickii</i> | Latham's Snipe, Japanese Snipe |
| No | No | <i>Hirundapus caudacutus</i> | White-throated Needletail |
| No | No | <i>Monarcha melanopsis</i> | Black-faced Monarch |
| No | No | <i>Motacilla flava</i> | Yellow Wagtail |
| No | No | <i>Myiagra cyanoleuca</i> | Satin Flycatcher |
| No | No | <i>Numenius madagascariensis</i> | Eastern Curlew, Far Eastern Curlew |
| No | No | <i>Rhipidura rufifrons</i> | Rufous Fantail |
| No | No | <i>Tringa nebularia</i> | Common Greenshank, Greenshank |

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

No

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

Fourteen species listed as Migratory under the EPBC Act were identified by the PMST as having the potential to utilise habitat within the Project area. All 14 species are highly mobile, and the Project area does not provide important habitat for an ecological significant proportion of any of these species and the Project is not expected to result in a direct or indirect impact to them.

Of these 14 species 12 are considered to have a low likelihood of utilising habitat within the Project area. Two species *Hirundapus caudacutus* (White-throated Needletail) and *Gallinago hardwickii* (Latham's Snipe) are considered to have a moderate likelihood of utilising habitat within the Project Area. However, utilisation of the Project area by these two species is likely to be transient and for foraging and dispersal purposes only. Both species' breeding grounds are not in Australia.

The likelihood of migratory birds utilising the Project area and potential for important habitat within the Project area is summarised in the attached List of modelled migratory birds within the Jacana SFC and ERS Project area.pdf.

4.1.6 Nuclear

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

No

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

The Proposed Action is not a Nuclear activity.

4.1.7 Commonwealth Marine Area

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

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

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

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

No

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

There are no Commonwealth Marine Areas within or close to the Project Area.

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

No

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

The Proposed Action is located in Victoria and is not near the Great Barrier Reef.

4.1.9 Water resource in relation to large coal mining development or coal seam gas**4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? ***

No

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

The Proposed Action is not a large coal mining development or coal seam gas.

4.1.10 Commonwealth Land

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

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

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

—

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

No

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

There is not Commonwealth Land located within Project area.

4.1.11 Commonwealth Heritage Places Overseas

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

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

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

—

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

No

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

The Proposed Action does not include any Commonwealth heritage places overseas.

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

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

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

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

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

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

4.3 Alternatives

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

No

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

Alternatives to the construction of the Jacana SFC and ERS are not possible due to the existing sewer system being unable handle wet weather flows, leading to expected spills during 1 in 5-year storms. These spills are expected to worsen due to population growth and increased density. The Jacana SFC is specifically designed to address these capacity constraints and the location was based on a critical low point in the network addressing specific hydraulic issues. Alternative solutions such as upsizing the existing main or construction of new mains are unfeasible due to the high construction impact and costs associated with the location. Further delays would also worsen capacity issues and increase the risk of sewer spills with considerable environmental and health impacts.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

| | Type | Name | Date | Sensitivity | Confidence |
|-----|----------|---|------------|-------------|------------|
| #1. | Document | Jacana Reserve SFC and ERS Ecological Impact Assessment.pdf This is the complete Ecological Impact Assessment report for the project | 30/01/2024 | No | High |

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

| | Type | Name | Date | Sensitivity | Confidence |
|-----|------|--|------|-------------|------------|
| #1. | Link | Procedure to rely on the utility installations exemption in planning schemes-Water service provide https://www.environment.vic.gov.au/__data/assets.. | | | High |
| #2. | Link | Protected Matters Search Tool https://pmst.awe.gov.au | | | High |

1.2.7 Public consultation regarding the project area

| | Type | Name | Date | Sensitivity | Confidence |
|-----|----------|---|------------|-------------|------------|
| #1. | Document | Cultural Heritage Management Plan Approval Letter.pdf Cultural Heritage Management Plan Approval Letter from Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation | 10/09/2024 | Yes | High |
| #2. | Document | DoT Email.pdf Approval from DoT to access and/or utilise their property | 06/07/2024 | Yes | High |
| #3. | Document | email attachment MWA1286843 Jacana SFC and ERS Drawing Approval.pdf Jacana SFC and ERS Drawing that was attached to the email discussing updated drawings for review and approval of the ERS from YVW and addressed to Melbourne Water | 22/11/2024 | Yes | High |
| #4. | Document | FW EXTERNAL Merri-bek City Council - Planning Permit Application Lodgement.pdf Email confirming Merri-bek City Council - Planning Permit Application Lodgement | 06/12/2024 | Yes | High |
| #5. | Document | Hume City Council In-principle Approval.pdf N PRINCIPLE SUPPORT LETTER – PROPOSED CONSTRUCTION ACCESS LICENCE IMPACTING COUNCIL OWNED / MANAGED PROPERTY | 09/06/2023 | Yes | High |
| #6. | Document | Melbourne Water Access Consent.pdf Approval from Melbourne Water to use proposed access route via | 08/07/2024 | Yes | High |

| | | | | |
|----------------------|----------|--|------------|----------|
| Melbourne Water Land | | | | |
| #7. | Document | Merri-bek City Council - Planning Permit Application.pdf Merri-bek City Council - Planning Permit Application | 04/12/2024 | Yes High |
| #8. | Document | Minutes Jacana SFC site visit.pdf Minutes Jacana SFC site visit by YVW, Hume City Council, Melbourne Water, Ventia, and Jaydo. | 07/03/2024 | Yes High |
| #9. | Document | MWA-1286843 Jacana SFC and ERS - Drawing Approval.pdf Email discussing updated drawings for review and approval of the ERS from YVW and addressed to Melbourne Water | 18/12/2024 | Yes High |
| #10. | Document | Yarra Valley Water Jacana Hume Pre-App Recap.pdf Email discussing summary of meeting between Jacobs environmental planner and Hume City Council regarding permit application requirements | 14/10/2024 | Yes High |
| #11. | Document | YVW Jacana SFC Planning Permit Application 139-157 Johnstone Street.pdf Email to Hume City Council for the YVW Jacana SFC Planning Permit Application 139-157 Johnstone Street | 20/12/2024 | Yes High |

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

| Type | Name | Date | Sensitivity | Confidence |
|------|----------|---|-------------|------------|
| #1. | Document | Integrated Management System Manual.pdf This document is the manual for YVW's Integrated Management System | 06/02/2023 | Yes High |
| #2. | Document | Integrated Management System Policy.pdf YVW Integrated Management System Policy | 21/08/2020 | No High |

3.1.1 Current condition of the project area's environment

| Type | Name | Date | Sensitivity | Confidence |
|------|------|---|-------------|------------|
| #1. | Link | Victorian Biodiversity Atlas https://vba.dse.vic.gov.au/vba | | High |

3.2.1 Flora and fauna within the affected area

| Type | Name | Date | Sensitivity | Confidence |
|------|----------|---|-------------|------------|
| #1. | Document | Jacana Reserve SFC and ERS Ecological Impact Assessment.pdf This is the complete Ecological Impact Assessment report for the project | 29/01/2024 | No High |
| #2. | Document | List of threatened fauna species.pdf List of threatened fauna species that have a moderate to high likelihood of occurrence within the Project area. | 30/01/2024 | No High |

3.2.2 Vegetation within the project area

| Type | Name | Date | Sensitivity | Confidence |
|------|----------|---|-------------|------------|
| #1. | Document | Jacana Reserve SFC and ERS Ecological Impact Assessment.pdf This is the complete Ecological Impact Assessment report for the project | 29/01/2024 | No High |

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

| Type | Name | Date | Sensitivity | Confidence |
|------|---|------------|-------------|------------|
| #1. | DocumentPotential impacts to Growling Grass Frog.pdf Potential impacts to Growling Grass Frog, required mitigation measures and likelihood of significant impact under the 'Significant Impacts Guidelines for the Vulnerable Growling Grass Frog' | 30/01/2024 | No | High |

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

| Type | Name | Date | Sensitivity | Confidence |
|------|---|------------|-------------|------------|
| #1. | DocumentJacana Reserve SFC and ERS Detailed Ecology Assessment (Project Area Variation).pdf This is the entire Detailed Ecological Assessment report for the project | 29/01/2024 | | High |

4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

| Type | Name | Date | Sensitivity | Confidence |
|------|---|------------|-------------|------------|
| #1. | DocumentJacana Reserve SFC and ERS Detailed Ecology Assessment (Project Area Variation).pdf This is the entire Detailed Ecological Assessment report for the project | 29/01/2024 | No | High |

4.1.5.3 (Migratory Species) Why your action is unlikely to have a direct and/or indirect impact

| Type | Name | Date | Sensitivity | Confidence |
|------|---|------------|-------------|------------|
| #1. | DocumentList of modelled migratory birds within the Jacana SFC and ERS Project area.pdf Summary table of modelled migratory birds within the Jacana SFC and ERS Project area | 30/01/2024 | No | High |

5.2 Declarations

✔ Completed Referring party's declaration

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

| | |
|----------------------------|--|
| ABN/ACN | 37001024095 |
| Organisation name | JACOBS GROUP (AUSTRALIA) PTY LTD |
| Organisation address | 452 Flinders Street, Melbourne, 3000, VIC, Australia |
| Representative's name | Tao Lee |
| Representative's job title | Ecologist |
| Phone | 0431181466 |
| Email | tao.lee@jacobs.com |

Address

452 Flinders St

- ☒ Check this box to indicate you have read the referral form. *
- ☒ I would like to receive notifications and track the referral progress through the EPBC portal. *
- ☒ By checking this box, I, **Tao Lee of JACOBS GROUP (AUSTRALIA) PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *
- ☒ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Person proposing to take the action's declaration

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

| | |
|----------------------------|---|
| ABN/ACN | 93066902501 |
| Organisation name | Yarra Valley Water Corporation |
| Organisation address | Private Bag 1, Mitcham, 3132, Victoria, Australia |
| Representative's name | Tashdid Tahmid |
| Representative's job title | YVW Project Manager, Asset Growth Projects |
| Phone | +61398721578 |
| Email | tashdid.tahmid@yvw.com.au |
| Address | 25 Lucknow St, Mitcham VIC 3132 |

- ☒ Check this box to indicate you have read the referral form. *
- ☒ I would like to receive notifications and track the referral progress through the EPBC portal. *
- ☒ I, **Tashdid Tahmid of Yarra Valley Water Corporation**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *
- ☐ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Proposed designated proponent's declaration

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

Same as Person proposing to take the action information.

- ☒ Check this box to indicate you have read the referral form. *
- ☒ I would like to receive notifications and track the referral progress through the EPBC portal. *
- ☒ I, **Tashdid Tahmid of Yarra Valley Water Corporation**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *
- ☐ I would like to receive notifications and track the referral progress through the EPBC portal. *