REFERRAL OF A PROJECT FOR A DECISION ON THE NEED FOR ASSESSMENT UNDER THE *ENVIRONMENT EFFECTS ACT 1978*

REFERRAL FORM

The *Environment Effects Act 1978* provides that where proposed works may have a significant effect on the environment, either a proponent or a decision-maker may refer these works (or project) to the Minister for Planning for advice as to whether an Environment Effects Statement (EES) is required.

This Referral Form is designed to assist in the provision of relevant information in accordance with the *Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Eighth Edition, 2023). Where a decision-maker is referring a project, they should complete a Referral Form to the best of their ability, recognising that further information may need to be obtained from the proponent.

It will generally be useful for a proponent to discuss the preparation of a Referral with the Impact Assessment Unit (IAU) at the Department of Transport and Planning (DTP) before submitting the Referral.

If a proponent believes that effective measures to address environmental risks are available, sufficient information could be provided in the Referral to substantiate this view. In contrast, if a proponent considers that further detailed environmental studies will be needed as part of project investigations, a more general description of potential effects and possible mitigation measures in the Referral may suffice.

In completing a Referral Form, the following should occur:

- Mark relevant boxes by changing the font colour of the 'cross' to black and provide additional information and explanation where requested.
- As a minimum, a brief response should be provided for each item in the Referral Form, with a more detailed response provided where the item is of particular relevance. Cross-references to sections or pages in supporting documents should also be provided. Information need only be provided once in the Referral Form, although relevant cross-referencing should be included.
- Responses should honestly reflect the potential for adverse environmental effects. A Referral will only be accepted for processing once IAU is satisfied that it has been completed appropriately.
- Potentially significant effects should be described in sufficient detail for a reasonable conclusion to be drawn on whether the project could pose a significant risk to environmental assets. Responses should include:
    - a brief description of potential changes or risks to environmental assets resulting from the project;
    - available information on the likelihood and significance of such changes;
    - the sources and accuracy of this information, and associated uncertainties.
- Any attachments, maps and supporting reports should be provided in a secure folder with the Referral Form.
- A USB copy of all documents will be needed, especially if the size of electronic documents may cause email difficulties. **Individual documents should not exceed 10MB as they will be published on the Department's website.**

- A completed form would normally be between 15 and 30 pages in length. Responses should not be constrained by the size of the text boxes provided. Text boxes should be extended to allow for an appropriate level of detail.
- The form should be completed in MS Word and not handwritten.

The party referring a project should submit a covering letter to the Minister for Planning together with a completed Referral Form, attaching supporting reports and other information that may be relevant. This should be sent to:

Postal address

Minister for Planning
PO Box 500
EAST MELBOURNE VIC 8002

Couriers

Minister for Planning
Level 16, 8 Nicholson Street
EAST MELBOURNE VIC 3002

In addition to the submission of the hardcopy to the Minister, separate submission of an electronic copy of the Referral via email to ees.referrals@delwp.vic.gov.au is required. This will assist the timely processing of a referral.

PART 1 PROPONENT DETAILS, PROJECT DESCRIPTION & LOCATION

1. Information on proponent and person making Referral

Name of Proponent:	Melbourne Water
Authorised person for proponent:	Nazish Azhar
Position:	Project Manager
Postal address:	PO Box 4342 Melbourne, Victoria 3001
Email address:	Nazish.Azhar@melbournewater.com.au
Phone number:	03 9679 7100
Facsimile number:	N/A
Person who prepared Referral:	Ben Mahon
Position:	Principal Environmental Planner
Organisation:	Jacobs Australia Pty Ltd
Postal address:	L13, 452 Flinders Street, Melbourne, 3000
Email address:	ben.mahon@jacobs.com
Phone number:	03 8668 3000
Facsimile number:	N/A
Available industry & environmental expertise: (areas of 'in-house' expertise & consultancy firms engaged for project)	**Melbourne Water** Melbourne Water is a statutory authority and amongst other functions is responsible for managing Melbourne's water supply catchments. Melbourne Water is responsible for the management of the Silvan water system which supplies 70% of Melbourne drinking water through the metropolitan water authorities. Melbourne Water has in-house experience in water infrastructure, planning, project development, project implementation, environmental management and consultation. Melbourne Water has engaged suitably qualified consultants to undertake a range of project investigations: **Jacobs Australia** Jacobs Australia (Jacobs) is a multidisciplinary consultancy and the lead consultant assisting Melbourne Water in the delivery of this project. Services provided for this project include planning, heritage, ecology, geotechnical engineers, contaminated land specialists, and security specialists. Jacobs are the lead designers of the project. **Tree Department Pty Ltd** Tree Department Pty Ltd (Tree Department) are the consultant arborist on this project. Tree Department have led the arboricultural assessment and the arboricultural impact assessment for this project. **MNG SubSpatial** MNG SubSpatial (MNG) are a consultant surveyor firm and provided a geophysical investigation of the proposed fence alignment to identify the profile of the subsurface geology.

2. Project – brief outline

Project title: Silvan High Security Fence Project

Project location: (describe location with AMG coordinates and attach A4/A3 map(s) showing project site or investigation area, as well as its regional and local context)

The Silvan Reservoir is located in the suburb of Silvan, 40km east of Melbourne's Central Business District (CBD). The reservoir is located in the Yarra Ranges Local Government Area (LGA). Silvan Reservoir is located within the community of Silvan and nearby settlements include Monbulk and Mount Evelyn. The project area is located outside of Melbourne Urban Growth Boundary (UGB) and is situated within the Dandenong Ranges.

Refer to Attachment A for a site map overview including the regional context of the site. Attachment B includes a spreadsheet containing coordinates of the fenceline alignment.

Short project description (few sentences)**:**

The project replaces the existing 15km perimeter fence that surrounds Silvan Reservoir. The fence is to be upgraded to achieve compliance with the Water Services Association of Australia (WSAA) Health Based Targets (HBT) Manual as a Category 1 – Protected Catchment. The fence will have a minimum height of 3m above ground level, anti-dig features and would be equipped with a Perimeter Intruder Detection System (PIDS).

3. Project description

Aim/objectives of the project (what is its purpose / intended to achieve?):

The upgrading of the perimeter fence at Silvan Reservoir will allow for the security arrangements at Silvan Reservoir to meet the Category 1 – Protected Catchment status in accordance with the WSAA HBT Manual.

Background/rationale of project (describe the context / basis for the proposal, eg. for siting):

Silvan Reservoir is graded as a 'Category 2 – Moderately Protected' catchment due to the current security arrangements on site. In accordance with the WSAA HBT Manual, Category 2 catchments must treat water through both chlorination and UV treatment. As Silvan Reservoir only offers chlorination, Melbourne Water must either upgrade their security arrangements on site to be classified as Category 1 (which does not require additional treatment other than chlorination) or introduce additional UV treatment to meet the requirements of Category 2.

Melbourne Water undertook a Tier 1 Water Safety Assessment (WSA) and developed the Catchment Management Optimisation Program (CMOP) which identified the most cost-effective approach to achieving HBT compliance. The assessment found that the Silvan Reservoir catchment should be upgraded to HBT Category 1 and recommended improved catchment management, fence upgrade and site supervision.

Main components of the project (nature, siting & approx. dimensions; attach A4/A3 plan(s) of site layout if available):

The main components of the project are:

- A fence.
- Gates
- A Perimeter Intruder Detection System

Silvan Reservoir is located in Silvan, within the Yarra Ranges local government area (LGA). Nearby settlements include Monbulk and Mount Evelyn. The project area is located outside of Melbourne Urban Growth Boundary (UGB) and is situated within the Dandenong Ranges. Silvan Reservoir is part of a protected catchment and public access to the land is not permitted.
The main component of the project is a new fence on the same alignment as the existing fence. The proposed fence material is to be weld-mesh (subject to further investigation). The proposed fence will be located on the alignment of the existing fence. The fence will have a minimum height of three (3) metres above ground level, and sections may exceed three (3) metres where on steep terrain. The fence will have a Perimeter Intruder Detection System (PIDS), and utilities would be attached to the fence structure.

The existing and proposed fence is located on Melbourne Water's boundary to the Dandenong Ranges National Park and the Gardens of the Dandenong Ranges (managed by Parks Victoria) and Monbulk Road (managed by Department of Transport and Planning), Silvan Road and McCarthy/Chalet Road (Yarra Ranges Shire Council).

Two sections of the fence that are not on the property boundary are a short section that is located within the Dandenong Ranges National Park and a short section near the northern dam wall that is wholly within Melbourne Water's land.

The boundary fence along the western side of Silvan Reservoir, where it interfaces to the Dandenong Ranges National Park is a Strategic Fuel Break that is managed by Forest Fire Management, Parks Victoria and Melbourne Water. The boundary fence around the balance of the property is a fuel break managed by the Country Fire Authority, Melbourne Water and Yarra Ranges Shire Council.

Fire access tracks and gates within the Melbourne Water's land provide access within Silvan Reservoir and they connect with fire access tracks within the Dandenong Ranges National Park and Gardens of the Dandenong Ranges. The tracks and other public roads provide access for Forest Fire Management, Parks Victoria, Melbourne Water, Yarra Ranges Shire Council and the CFA to manage bushfire prone land and to fight-fires in the event of a bushfire. There are sections of the existing fence where fire access tracks run parallel to the fence, and in some cases along both sides of the fence. In other areas of the reservoir, the fire access tracks are separated from the boundary fence.

Refer to Attachment A for the site layout and regional context of the Project.

Ancillary components of the project (eg. upgraded access roads, new high-pressure gas pipeline; off-site resource processing):

The ancillary components of the project are:

- Laydown areas within Melbourne Water owned land for construction team equipment storage, fence components, construction machinery and equipment, and amenity facilities. Laydown areas are to be located within existing cleared areas.
- Temporary construction site office facilities would be located within or adjacent to Melbourne Water's Silvan Reservoir site office, existing compounds and cleared areas.

Key construction activities:
The construction activities will include:

- Erection of temporary fence during construction.
- Removal of the existing open weave wire-mesh fence
- Construct the proposed fence
- Access along existing external public roads
- Access along internal/external maintenance and fire-access tracks
- Occupation and access over land within Silvan Reservoir, Gardens of the Dandenong Ranges, Dandenong Ranges National Park and public roads.
- Removal of vegetation along the boundary fence, fire-access tracks, and within laydown areas to the minimum extent necessary for construction and access purposes
- The removal of vegetation
- Material transportation
- Ancillary construction activities

Key operational activities:

Silvan Reservoir, which is part of the Silvan water system that supplies 70% of Melbourne drinking water, is managed by Melbourne Water in accordance with the Melbourne Water System Strategy (Melbourne Water, 2017).

Vegetation along the boundary fence within the reservoir and adjoining Dandenong Ranges National Park will continue to be maintained as a Strategic Fuel Break. The Strategic Fuel Break is maintained in accordance with the Strategic Fuel Break Program, which includes the Strategic Fuel Break: Construction & Maintenance (Forest Fire Management, 29/03/2023) and related guides and policies.

Vegetation along the boundary fence within the reservoir and adjoining land other than the Dandenong Ranges National Park will continue to be managed as fuel break in accordance with the Melbourne Water Bushfire Risk Management: Silvan Plan (Melbourne Water, 2020).

Key decommissioning activities (if applicable):

No decommissioning activities are proposed as part of the project. Any future decommissioning activities would be undertaken in accordance with applicable regulatory requirements at the time.

Is the project an element or stage in a larger project?

☒ No ☐ Yes If yes, please describe: the overall project strategy for delivery of all stages and components; the concept design for the overall project; and the intended scheduling of the design and development of project stages).

Is the project related to any other past, current or mooted proposals in the region?

☒ No ☐ Yes If yes, please identify related proposals.

What is the estimated capital expenditure for development of the project?

The estimated capital cost is approximately $39 million (including contractor costs, indirect costs and excluding contingency) for the fence.

4. Project alternatives

Brief description of key alternatives considered to date (eg. locational, scale or design alternatives. If relevant, attach A4/A3 plans):

A multi-criteria assessment was undertaken to assess options to locate the fence in one of three locations, as follows:

- Base Case: Along the existing fence line
- Option 1: Along an internal track inset from the property boundary
- Option 2: Along an internal track that borders the edge of the reservoir.

The multi-criteria assessment examined the potential impacts on land use planning, community, ecology, historic heritage and Aboriginal heritage, as well as ground conditions, potential for contaminants, construction methodology, project objectives and cost.

The assessment found that the preferred option is to maintain the fence on the existing alignment. The replacement of the fence on the exiting alignment would avoid and minimise impacts to habitat and native vegetation and achieve the project's security objectives.

It was concluded that the Base Case option would have the least ecological impact, with native vegetation variously cleared or disturbed along much of existing alignment and associated fuel-breaks. Other options outside of the existing fence alignment would result in additional clearance of native vegetation of potentially higher quality.

The multi-criteria analysis also examined the fence material and construction method and resulted in modifications to maintain site security while avoiding impacts to the roots of large trees.

Yarra Ranges Shire Council requested Melbourne Water to consider a design change to allow for a share use path along the western side of Monbulk Road (in place of its current concept along the eastern side of Monbulk Road). The alternative alignment would indent the fence from Monbulk Road. This is a similar alignment to Option 1, which was tested in the multi-criteria assessment. Option 1 had previously been identified as having a more significant impact on the environment than the Base Case.

The alternative to constructing a new fence and security system is to increase water treatment operations at Silvan Reservoir, such as filtration and UV disinfection. This cost of a new filtration and UV disinfection plant would be approximately $200 million, as compared to the $39 million (cost including contractor costs, indirect costs excluding contingency) for the fence.

Brief description of key alternatives to be further investigated (if known)**:**
N/A

5. Proposed exclusions

Statement of reasons for the proposed exclusion of any ancillary activities or further project stages from the scope of the project for assessment:

The construction works identified as part of this EES referral consists of the entirety of the proposed development.

However, some works required outside of what is directly associated with the construction of the project are proposed for exclusion as they are not deemed capable of having a significant effect on the environment. This includes the following:

- Works for the investigation, testing and surveying of land related to the design of the Project
- Business as usual works

6. Project implementation

Implementing organisation (ultimately responsible for project, ie. not contractor)**:**

Melbourne Water Corporation

Implementation timeframe:

Construction is anticipated to begin from mid-2025, with the completion of construction anticipated in mid-2027.

Proposed staging (if applicable):

The project would be delivered as one stage.

7. Description of proposed site or area of investigation

Has a preferred site for the project been selected?

☐ No ☒ Yes If no, please describe area for investigation.
If yes, please describe the preferred site in the next items (if practicable).

General description of preferred site, (including aspects such as topography/landform, soil types/degradation, drainage/ waterways, native/exotic vegetation cover, physical features, built structures, road frontages; attach ground-level photographs of site, as well as A4/A3 aerial/satellite image(s) and/or map(s) of site & surrounds, showing project footprint):

The Project area is located within the suburb of Silvan approximately 40 km east of Melbourne's Central Business District. It is located within the Highlands – Southern Fall bioregion. Refer to Attachment A for the site layout and regional context of the site. Refer to Attachment C for ground-level photographs taken of the site and existing infrastructure.

Topography:

The site topography is highly variable with hilly terrain generally comprising convex hills and deeply incised V-shaped valleys. The elevation of the reservoir is approximately RL 245 m Australian Height Datum (AHD), with the surrounding hills generally descending centrally towards this point. The site perimeter descends below this level in the valleys beyond the north and south walls of the reservoir, to approximately RL 210 m AHD in the north and RL 225 m AHD in the south.

The highest elevation is located in the southwestern part of the fence perimeter at approximately 520 m AHD, which descends towards an average elevation of 350 m AHD from the west to the north. The eastern part of the fence perimeter is more gently undulating and rises from about 250 m to 280 m AHD, with the highest elevation in this area of approximately 350 m AHD.

Grades are variable across the proposed alignment, though are frequently steep and exceed 10 degrees. Some localised areas in the south western portion of the alignment exceed 15 degrees.

Geological Setting:

The proposed fence alignment crosses three distinct geological units, including predominantly Tertiary-aged Older Volcanics basalt flows in the east, and Upper-Devonian-aged Ferny Creek Rhyodacite and metamorphosed Hornfels of the Humevale Formation in the west. The boundary between the Rhyodacite and Hornfels is potentially the Mount Evelyn Fault line, with a Quartz Porphyrite plug in the central area to the west.

A small section of Lower-Devonian Humevale Formation is encountered in the south-east, though it is noted this is covered by transported soils of basaltic origin. More recent alluvial deposits are noted in the north west associated with Lyre Bird Creek (also known as Olinda Creek).

Waterways:

The two primary waterways near to the project area are Lyrebird Gully Creek and Olinda Creek, located to the northwest. Whilst both creeks are close, neither intersects the existing fence alignment, though it is noted they may influence decisions around temporary access during construction. Throughout the remainder of the project area are numerous drainage paths and gullies which typically drain centrally to the reservoir itself.

Native/Exotic Vegetation Cover:

The vast majority of the Project Area supports patches of native vegetation and fauna habitat of variable condition. Much of the Project Area is located within treed fuel-breaks and as such the structure of vegetation has been significantly altered from the surrounding forest. Areas of non-native vegetation are restricted in extent and include mown lawns and horticultural plantings. Significant flora and fauna values are variously present throughout the Project Area (refer to Section 8 below).

A total of 245 vascular plant species was recorded within the Project Area, of which 168 (68.6%) are indigenous, 75 (30.6%) are exotic and two (0.8%) are Victorian native species that are not indigenous to the Project Area. This total excludes species planted in horticultural contexts unless they were observed naturalising.

Three Ecological Vegetation Classes (EVC) were recorded within the Project area; EVC 16: Lowland Forest, EVC 18: Riparian Forest, and EVC 45: Shrubby Foothill Forest. A total of 2,119 trees were assessed as part of the arboricultural assessment, with the majority, 1,795 trees, being locally indigenous taxa.

Refer to mapping of ecology values in Appendix D of the Silvan High Security Fence Upgrade:

Detailed Ecology Assessment (Attachment D – Part 2).

Existing Built Features:

There is an existing fenceline along the perimeter of Silvan Reservoir. The existing fence will be removed, and the new high security fence will be constructed along the same alignment.

Roads:
Monbulk Road is located to the east of the reservoir, Silvan Road and Stonyford Road to the north, and McCarthy and Chalet Road to the south. Trees and undergrowth are located in the area between the fence and the roads. Sections of the roads are within several metres of the boundary fence.

Access Tracks:
An existing network of access tracks and gates connect Silvan Reservoir with the neighbouring Dandenong Ranges National Park, Gardens of the Dandenong Ranges and public roads.

Site area (if known):

Route length (for linear infrastructure) 15 km

Width up to 3 metre clearance zone from the fence

Width potentially up to a 13 metre zone for construction where impacts would be limited to the understorey where there is partial clearance in accordance with existing bushfire management practices.

Current land use and development:

Within Silvan Reservoir the land is used for the operation of the reservoir and supply of drinking water for Melbourne. There is no public access to the reservoir.

A small section of the fence is and will continue to be located in the Dandenong Ranges National Park. The fence is also located on the boundary of the Gardens of the Dandenong Ranges. Both parks are maintained for conservation purposes and are open to the public.

The fence is located on the boundary of public roads.

Description of local setting (eg. adjoining land uses, road access, infrastructure, proximity to residences & urban centres):

The adjoining land is used for conservation and recreation. Other nearby land is used for residential and agricultural purposes.

The nearest urban centres are Monbulk and Mount Evelyn. The Monbulk town centre is approximately 1.5km to the south and the Mount Evelyn town centre is 5km to the north. The two areas are connected by Monbulk Road. The Monbulk Road parallel to central and southern sections of Silvan Reservoir has a narrow shoulder from the back of kerb to the fence.

Residential, rural industry and farming uses are located to the north, east and south of Silvan Reservoir. These uses do not directly interface with the reservoir and are separated by public roads. The majority of residences in close proximity to the Project area are on Monbulk Road.

The Reservoir is bordered by Monbulk Road to the east, McCarthy/Chalet Road to the south, Silvan Road/Stonyford Road to the north.

Refer to Attachment A for the site map overview and regional context mapping for further information on the local setting.

Planning context (eg. strategic planning, zoning & overlays, management plans):
Melbourne Water is a statutory authority and amongst other functions it is responsible for managing Melbourne's water supply catchments. Melbourne Water is responsible for the management of the Silvan water system which supplies 70% of Melbourne drinking water.

Silvan Reservoir as a significant water source for Melbourne. The objective of the planning policy at Clause 14.02-2S Water Quality of the Yarra Ranges Planning Scheme is *to protect water quality* and the corresponding strategy is to *protect reservoirs, water mains and local storage facilities from potential contamination.*

The Project is located in or on the boundary of land in the following zones and overlays in the Yarra Ranges Planning Scheme:

Zone of the subject land
- Public Use Zone 1 (PUZ1)
- Public Conservation and Resource Zone (PCRZ)

Zones on adjoining land
- Public Park and Recreation Zone (PPRZ)
- Public Conservation and Resource Zone (PCRZ)
- Transport Zone 2 (TRZ2)
- Green Wedge Zone 1 (GWZ1) and Green Wedge Zone 2 (GWZ2)

Overlays of the subject land
- Environmental Significance Overlay 1 (ESO1 – Highest Biodiversity Habitat Areas and Biolink Corridors)
- Significant Landscape Overlay 1 (SLO1 – Dandenong Ranges Landscape)
- Bushfire Management Overlay (BMO)

Additional overlays on adjoining land
- Heritage Overlay 278 (HO278 – RJ Hamer Forest Arboretum & Woolrich Nursery Lookout)
- Erosion Management Overlay (EMO)

Refer to Attachment E for planning zone and overlay maps of the site.

Local government area(s):

The project is located within the Yarra Ranges local government area.

8. Existing environment

Overview of key environmental assets/sensitivities in project area and vicinity
(cf. general description of project site/study area under section 7)**:**

Native vegetation
The majority of the Project Area supports native vegetation of three EVCs, all of which have a conservation status of Least Concern within the Highlands – Southern Fall bioregion. Patches of native vegetation contain 566 Large Canopy Trees, and one Scattered Tree (large size-class) was also recorded.

Fauna habitat
The majority of the Project Area is heavily disturbed as a result of ongoing fuel break works and supports limited fauna habitat beyond an open canopy of mature eucalypts (few of which support hollows) over a slashed field-layer. Several small sections of the Project Area retain structurally intact vegetation on one or both sides of the fence, and should disturbance occur in these areas there is the chance for direct mortality of cryptic slow-moving ground dwelling species, but larger impacts such as fragmentation of habitat is likely to be minimal as these areas are all relatively small and with limited habitat connectivity inside of the fence.

Threatened species
Four flora species listed as threatened under the FFG Act were recorded within the Project Area:

- Dandenong Wattle (*Acacia stictophylla*) - Four mature plants of Dandenong Wattle were recorded in the Monbulk Road road reserve on the eastern flank of the Project Area.
- Famine Flat-pea (*Platylobium infecundum*) - Approximately 19 plants were recorded in two close-by locations within the reservoir reserve, all within several metres of the existing fence-line on the eastern flank of the Project Area.
- Powelltown Correa (*Correa reflexa* var. *lobata*) - 22 mature plants were recorded within or adjoining the Project Area.
- Victorian Flat-pea (*Platylobium reflexum*) - approximately 706 plants were recorded over a 1.5 km stretch in the southwest of the Project Area and adjoining McCarthy Rd in the south.

Additional ecological values considered to have a moderate or high likelihood of occurrence within the Project Area:

- 19 EPBC Act-listed threatened fauna species
- 45 FFG Act-listed threatened fauna species (inclusive of 17 aforementioned EPBC Act-listed taxa)
- one FFG Act-listed threatened flora species.

Migratory species
A total of 13 migratory fauna species were identified as having the potential to occur within the Project Area, however the potential quantum of vegetation removal is considered to be negligible in the context of the broader landscape and thus these species are considered unlikely to be significantly impacted by the proposed works.

Threatened ecological communities
No EPBC Act-listed threatened ecological communities are present within the Project Area. Likewise, no threatened communities listed under the FFG Act are present within the Project Area.

For further detail please refer to the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D).

9. Land availability and control

Is the proposal on, or partly on, Crown land?

☐ No ☒ Yes If yes, please provide details.

The existing fence is located within the following parcel and the new fence would be replaced in the same location on the following single parcel:

- Crown Description: Crown Allotment 2007, Parish of Monbulk
  Address: 1259-1261 Mt Dandenong Tourist Road, Kalorama 3766
  Standard Parcel Identifier: 2007\PP3146

Current land tenure (provide plan, if practicable):

Land inside Silvan Reservoir, where works will occur:

- 65 Stonyford Road, Silvan, 3795
- 500 Monbulk Road, Monbulk, 3793
- 120 Stonyford Road, Silvan, 3795.

Refer to Attachment A for the Location Map showing the site local context.
Refer to Attachment F for a map of the land parcels on site, as well as an assessment of land tenure.

Intended land tenure (tenure over or access to project land):

A licence would be granted by Parks Victoria in accordance with section 27 of the National Parks Act 1975.

No change in land tenure is proposed.

Other interests in affected land (eg. easements, native title claims):

A search of the Native Title Register was conducted in May 2024 and the results confirm that there are no Native Title claims that apply to the project area.

An easement in favour of Eastern Energy Limited is located on Section N of Allotment 6 in the Parish of Monbulk. The easements provide for an indoor substation, underground powerline and carriageway. The project would not affect the easement.

10. Required approvals

State and Commonwealth approvals required for project components (if known):

The following approvals would be required in accordance with State legislation:

- An approved Cultural Heritage Management Plan (CHMP) in accordance with the Aboriginal Heritage Act 2006
- A planning approval in accordance with the Planning and Environment Act 1987
- A permit to remove protected native flora in accordance with the Flora and Fauna Guarantee Act 1988
- A consent for a licence in accordance with s27 of the National Parks Act 1975
- Consents may also be required in accordance with the Wildlife Act 1975 and the Fisheries Act 1995

Have any applications for approval been lodged?

☒ No ☒ Yes If yes, please provide details.

Approval agency consultation (agencies with whom the proposal has been discussed):

Refer below

Other agencies consulted:
The following stakeholders have been consulted:

- Parks Victoria
- Department of Transport and Planning, State Concierge
- Yarra Ranges Shire Council
- DEECA, Forest Fire Management
- Country Fire Authority

PART 2 POTENTIAL ENVIRONMENTAL EFFECTS

11. Potentially significant environmental effects

Overview of potentially significant environmental effects (identify key potential effects and comment on their significance and likelihood, as well as key uncertainties):

Potentially significant environmental effects relate to the potential removal of two FFG Act-listed threatened flora species: Victorian Flat-pea (*Platylobium reflexum*) and Famine Flat-pea (*Platylobium infecundum*). During surveys undertaken for this Project both species were recorded in sufficient numbers within the Project Area that removal of plants could trigger the need for referral. The relevant referral criteria is "Potential for loss of a significant proportion (for example, 1 percent or greater) of known remaining habitat or population of a threatened species within Victoria". Both species are discussed below.

Note: the identification of both species was confirmed as accurate by the Herbarium of Victoria.

Victorian Flat-pea (*Platylobium reflexum*)

The Threatened Species Assessment for Victorian Flat-pea estimates the Victorian population of this species to be 1,000-2,000 to 5,000-10,000 mature individuals. Therefore, the removal of as few as 17 of the 706 plants recorded may constitute a >1% loss of the Victorian population of this species. It is worth noting that there may well be 10,000 mature plants of this species within the local vicinity, and it is also understood that other populations of this species may be significantly greater than expressed in VBA data.

Approximately 706 plants were recorded over a 1.5 km stretch in the southwest of the Project Area and adjoining McCarthy Rd in the south of the Project Area. Plants were largely recorded within slashed areas of the fuel-break, as well as at the base of trees and growing up the existing security fence. Note: this species was forming spreading 'mats' in slashed areas, and for mapping purposes a single plant was accorded an approximate area of 3 square metres where the actual extent of the plant could not be determined.

This species was noted to be equally abundant outside the Project Area in the vicinity of recorded plants, both in the slashed fuel-break as well as in intact forested vegetation. There will be many thousands of plants of this species within the locality.

While the extent of Victorian Flat-pea potentially impacted by the Project can be minimised, its occurrence on/under/adjoining the existing fence, and throughout substantial areas of the fuelbreaks (on both Melbourne Water and Parks Victoria sides of the fence) would make it very difficult to avoid completely (and certainly substantially more than 17 plants would require removal). Micro-siting the fence alignment within the fuel-break has been considered but would likely result in greater impacts to indigenous canopy trees and would still likely require the removal of comparable numbers of Victorian Flat-pea.

Discussion has been had with the construction team and they have stated that they only require actual removal of plants in the location of fence-posts. Existing plants growing on the current fence will need to be cut off at ground level, though given the health of plants growing under a slashing regime it is likely that many of these plants may regenerate. Also, the use of fibreglass matting under the excavator used during construction would greatly reduce the potential for plants to be killed dur to the movement of machinery.

It is worthy of mention that the population of Victorian Flat-pea located within the fuel-break appears healthy, with plants flowering and fruiting, and apparently recruiting under the current disturbance regime. It is therefore considered highly likely that the removal of plants to facilitate the fence construction would not impact the long-term viability of the local population.

Minimisation of impacts to Victorian Flat-pea would include the following:

- Narrowing the Construction Footprint in the vicinity of Victorian Flat-pea.

- Protecting plants within the Construction Footprint (fencing as 'No Go Zones' for duration of works) where they are not required to be removed.

- Where plants cannot be fenced, minimising movement over areas supporting Victorian Flat-pea, and utilising fibreglass matting as appropriate where vehicle or foot traffic has the potential to be detrimental to plants.

- Avoiding works in the vicinity of Victorian Flat-pea during wet weather were plants may be more easily damaged.

Famine Flat-pea (*Platylobium infecundum*)

The Threatened Species Assessment for Famine Flat-pea estimates the Victorian population of this species to be 20 to 70 mature individuals. Therefore, the removal of any plants recorded would constitute a >1% loss of the Victorian population of this species.

Note: this species was forming spreading 'mats' in slashed areas, and for mapping purposes a single plant was accorded an approximate area of 3 square metres where the actual extent of the plant could not be determined. Given the species' ecology it is possible that the 19 plants recorded constitute only several individuals.

It is anticipated that Famine Flat-pea can be avoided by the Project (given the isolated occurrence of the species). All plants occur in a single location (though within two separated patches), and no plants were recorded climbing on or under the existing fence. As such it is recommended that these plants are fenced and protected for the duration of works.

12. Native vegetation, flora and fauna

Native vegetation

Is any native vegetation likely to be cleared or otherwise affected by the project?

☐ NYD ☐ No ☒ Yes If yes, answer the following questions and attach details.

What investigation of native vegetation in the project area has been done?
Vegetation Quality Assessment has been undertaken for the entirety of the Project Area in section 3.1.5 of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1). An arboriculture assessment has also been conducted and is provided in Appendix G of the Detailed Ecology Assessment (Attachment D – Parts 3 to 9).

What is the maximum area of native vegetation that may need to be cleared?

☐ NYD Estimated area – 16.12 (hectares).

Note – this area is based on the works area. While some native vegetation removal will be required (e.g. for fence post holes and tree removal along the fence-line) there will not be 16.12 ha of actual vegetation clearance. Various mitigation measures will be in place within the works area (e.g. no-go zones, use of protective ground matting) to reduce impacts. Also, the majority of native vegetation loss would be calculated as 'partial' clearing as only disturbance to the understorey would potentially occur (except for a 4 m wide area adjoining the fence-line where tree removal is required).

How much of this clearing would be authorised under a Forest Management Plan or Fire Protection Plan?

☒ N/A ……. approx. percent (if applicable)
It is estimated that in excess of 60 percent of native vegetation to be removed is exempt from the requirement for planning approval in accordance with fire protection regulations.

Which Ecological Vegetation Classes may be affected? (if not authorised as above)

☐ NYD ☒ Preliminary/detailed assessment completed. If assessed, please list.

EVC 16: Lowland Forest, EVC 18: Riparian Forest, and EVC 45: Shrubby Foothill Forest. Impacts to each EVC are identified below:

- EVC 16 Lowland Forest – 4.67 ha
- EVC 18 Riparian Forest – 0.19 ha
- EVC 45 Shrubby Foothill Forest – 11.26 ha

Have potential vegetation offsets been identified as yet?

☐ NYD ☒ Yes If yes, please briefly describe.

A Native Vegetation Removal Report has been generated based on the removal of native vegetation for which no exemptions apply. This report can be seen in Appendix E of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 2). Further measures to avoid and minimise impacts and re-assessment will confirm an expected reduction in the impacts to native vegetation. Based on the potential impacts, offsets would be required as per the list below and the amounts are to be confirmed following the application of measures to further avoid and minimise impacts:

- General habitat units (in Port Phillip and Westernport Catchment Management Authority (CMA) or Yarra Ranges Shire Council)
- Large Trees

Note that the Native Vegetation Removal Report is generated for the native vegetation required to be removed under Clause 52.17 of the Yarra Ranges Planning Scheme. As such, the offsets listed within the Native Vegetation Removal Report are only for the requirements under Clause 52.17. The 7 large trees listed therefore only relate to the 7 large canopy trees which require removal under Clause 52.17. The remaining 107 large canopy trees proposed for removal are exempt under Clause 52.12. For further information refer to the box below.

Other information/comments? (eg. accuracy of information)

In total, an estimated 356 indigenous trees are anticipated to be impacted by the Project. This includes 114 Large Canopy Trees. A total of 77 non-indigenous trees are anticipated to be impacted by the Project, including 14 Australian native and Victorian native trees. All trees anticipated to be impacted are located within patches and no scattered trees are anticipated to be impacted. Of the 433 trees proposed to be removed (both indigenous and non-indigenous), a planning permit is required for the removal of 356 trees. For further information refer to the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1).

For mapping of the location of impacted native vegetation, including both the native vegetation for which a planning permit is required, and the native vegetation which is exempt from requiring a planning permit, refer to Appendix D of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 2).

NYD = not yet determined

Flora and fauna

What investigations of flora and fauna in the project area have been done?
(provide overview here and attach details of method and results of any surveys for the project & describe their accuracy)

An ecological assessment and arboriculture assessment have been undertaken for the Project Area. These documents were prepared between December 2023 and April 2024.
The ecology assessment included the following components: desktop review; flora and fauna survey including Vegetation Quality Assessment, EVC mapping, threatened species surveys (including fauna habitat mapping), flora inventory; likelihood of occurrence assessment (of threatened species and communities); reporting.

Please refer to the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D) for further details. For methods and results, refer to Section 2 and Section 3 respectively (Attachment D – Part 1). For the Arboriculture Assessment, refer to Appendix G (Attachment D – Parts 3 to 9).

Have any threatened or migratory species or listed communities been recorded from the local area?

☒ NYD ☒ No ☒ Yes If yes, please:

- List species/communities recorded in recent surveys and/or past observations.
- Indicate which of these have been recorded from the project site or nearby.

Threatened flora recorded within Project Area (current assessment):

- Dandenong Wattle (Acacia stictophylla)
- Famine Flat-pea (Platylobium infecundum)
- Powelltown Correa (Correa reflexa var. lobata)
- Victorian Flat-pea (Platylobium reflexum)

Threatened flora recorded nearby the Project Area (i.e. within Silan Reservoir reserve or within c. 1km of Project Area in adjoining land), includes most recent date of records:

- Forest Sedge (Carex alsophila) - 2010
- Small Fork-fern (Tmesipteris parva) - 1980
- Tufted Club-sedge (Isolepis wakefieldiana) - 1907
- Velvet Apple-berry (Billardiera scandens s.s.) - 1969
- Wine-lipped Spider-orchid (Caladenia oenochila) – 2010

Threatened fauna recorded nearby the Project Area (i.e. within Silan Reservoir reserve or within c. 1km of Project Area in adjoining land), includes most recent date of records:

- Broad-toothed Rat (Mastacomys fuscus mordicus) - 1989
- Brown Treecreeper (Climacteris picumnus) - 2017
- Dandenong Freshwater Amphipod (Austrogammarus australis) - 1999
- Foothill Burrowing Crayfish (Engaeus victoriensis) - 1965
- Gang-gang Cockatoo (Callocephalon fimbriatum) - 1996
- Growling Grass Frog (Litoria raniformis) - 1987
- Hardhead (Aythya australis) - 1987
- Murray Cod (Maccullochella peelii) - 1970
- Musk Duck (Biziura lobata) – 2019
- Pilotbird (Pycnoptilus floccosus) - 2001
- Platypus (Ornithorhynchus anatinus) – 2021 (eDNA)
- Powerful Owl (Ninox strenua) - 2015
- Southern Brown Bandicoot (Isoodon obesulus obesulus) - 1967
- Sooty Owl (Tyto tenebricosa) - 2002
- Southern Greater Glider (Petauroides volans) - 2002
- Spot-tailed Quoll (Dasyurus maculatus maculatus) - 1974
- Trout Cod (Maccullochella macquariensis) - 1970
- Tubercle Burrowing Crayfish (Engaeus tuberculatus) - 1963
- White-bellied Sea-Eagle (Haliaeetus leucogaster) - 2018
- White-throated Needletail (Hirundapus caudacutus) - 1989
- Lace Monitor (Varanus varius) - 1989

Please refer to the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1) for further details regarding the likelihood of occurrence of threatened taxa (Sections 3.1.3, 3.2.1, Appendix C).

If known, what threatening processes affecting these species or communities may be exacerbated by the project? (eg. loss or fragmentation of habitats) Please describe briefly.

A number of FFG Act listed threatening processes may be relevant to the Project. For further information refer to Table 5-1 of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1) though are considered to be able to be addressed through the following mitigation measures:

- Retention of hollow bearing trees and trees showing signs of White-bellied Sea-Eagle nesting (note: few if any of these trees are likely to be impacted by the Project)
- Flushing of structurally intact area of native vegetation prior to clearing and relocation of fauna as required.
- Implementation of best practice sediment controls and avoidance of impacting riparian

vegetation adjoining the tributary of Olinda Creek.
- Implementation of biosecurity hygiene controls to address the potential spread of weed species and harmful pathogens (e.g. *Phytophthora cinnamomi* and Chytrid Fungus).

Are any threatened or migratory species, other species of conservation significance or listed communities potentially affected by the project?

☐ NYD ☒ No ☐ Yes If yes, please:

List these species/communities:

- Indicate which species or communities could be subject to a major or extensive impact (including the loss of a genetically important population of a species listed or nominated for listing) Comment on likelihood of effects and associated uncertainties, if practicable.

The PMST search identified 13 migratory fauna species as having the potential to occur within the Project Area. For further information refer to Table 3-5 of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1). Although the Project Area constitutes potential foraging habitat for some of these migratory species, the quantum of vegetation removal is considered to be negligible in the context of the broader landscape and thus these species are considered unlikely to be significantly impacted by the proposed works.

No listed communities will be affected by the Project.

Is mitigation of potential effects on indigenous flora and fauna proposed?

☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

The following mitigation measures are recommended to be variously implemented prior to, during and post-construction of the Project to minimise long-term deleterious impacts to biodiversity.
Pre-construction

- Minimise the Construction Footprint as far as possible to reduce unnecessary impacts to flora and fauna values. Steps to minimise the impact of the Construction Footprint include the following:
    - A multi-criteria assessment to assess options to locate the fence in one of three locations (along the existing fenceline, along an internal track inset from the property boundary, or along an internal track that borders the edge of the reservoir). The chosen option to replace the fence on the existing alignment will have the least ecological impact as the majority of native vegetation impacted has already been highly modified due to its occurrence within a fuel-break.
    - The multi-criteria assessment also examined the fence material and construction method and resulted in modifications to maintain site security while avoiding impacts to the roots of large trees. The initial construction method required the removal of all trees from a 3 m buffer either side of the fence alignment. This has been reduced to be a 1 m buffer on the outside of the fence and a 3 m buffer on the inside.
- Ensure ‘faunal movement gaps’ are incorporated into the fence design. These gaps should be placed at ground level no more than 10 m apart in the area marked as ‘small terrestrial mammal habitat’ in Map Q (Values Mapset) in Appendix D of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 3).
- All contractors to be undertaking works within the Project Area should undergo an ecological induction, whereby environmental protection measures adopted by the Project can be explained and contractor questions can be answered.

During construction:

- Native vegetation must be impacted to the minimal degree necessary to undertake the works. This can be achieved by:
    - Keeping vehicle movement to established tracks wherever possible
    - Only using allocated laydown areas for storing materials, equipment, etc.
    - Minimising ground-disturbance
    - Ensure trees identified for retention are not damaged.
- Native vegetation patches adjoining the Construction Footprint must be treated as ‘No Go Zones’ whereby no entry is allowed.
- Activities generally excluded from Tree Protection Zones (TPZ) include storage, parking

of vehicles and plant (unless on established tracks), preparation of chemicals, washing and cleaning of equipment, excavations (excluding those permitted under relevant approvals) and other activities identified in Clause 4.2 of Australian Standard 4970-2009 (Protection of trees on development sites).
- Threatened flora identified for retention within the Construction Footprint is to be fenced for the duration of works.
- Prior to construction activities commencing standard spotting and flushing of vegetation would occur to encourage dispersal of mobile fauna species.
- Implement appropriate erosion and sedimentation controls.
- The spread of noxious weeds, harmful pathogens and pest animals must be controlled in accordance with the CaLP Act as well as in accordance with Melbourne Waters biosecurity procedures.

Post-construction:
- Revegetation should be undertaken wherever Project works have resulted in bare ground (that is not naturally reestablishing with native species) as well as in areas previously supporting structurally intact native vegetation (i.e. native vegetation patches located outside of the existing fuel-break).

Please refer to Section 4 of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1) for further details of recommended mitigation measures.

Other information/comments? (eg. accuracy of information)

13. Water environments

Will the project require significant volumes of fresh water (eg. > 1 Gl/yr)?
☐ NYD ☒ No ☐ Yes If yes, indicate approximate volume and likely source.

Will the project discharge waste water or runoff to water environments?
☐ NYD ☒ No ☐ Yes If yes, specify types of discharges and which environments.

Are any waterways, wetlands, estuaries or marine environments likely to be affected?
☐ NYD ☒ No ☐ Yes If yes, specify which water environments, answer the following questions and attach any relevant details.

Are any of these water environments likely to support threatened or migratory species?
☐ NYD ☐ No ☒ Yes If yes, specify which water environments.

There is the potential for the occurrence of several threatened fauna species within or adjoining the tributary of Olinda Creek in north of Project Area. These species are:
- Ancient Greenling Damselfly (Hemiphlebia mirabilis)
- Dandenong Burrowing Crayfish (Engaeus urostrictus)
- Dandenong Freshwater Amphipod (Austrogammarus australis)
- Depressed Mussel (Hyridella (Hyridella) depressa)
- Foothill Burrowing Crayfish (Engaeus victoriensis)
- Narracan Corrugated Mussel (Hyridella narracanensis)
- Tubercle Burrowing Crayfish (Engaeus tuberculatus)

However, due to mitigation measures to be implemented by the Project to avoid impacting wetland environs (and the associated threatened fauna) within and adjoining the Project Area, no impacts are considered likely to occur to this waterway or fauna habitat).

Please refer to Section 3.2.1 of the Silvan High Security Fence Upgrade: Detailed Ecology Assessment (Attachment D – Part 1) for further details.

Are any potentially affected wetlands listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'?
☐ NYD ☒ No ☐ Yes If yes, please specify.

Could the project affect streamflows?
☐ NYD ☒ No ☐ Yes If yes, briefly describe implications for streamflows.

Could regional groundwater resources be affected by the project?
☐ NYD ☒ No ☐ Yes If yes, describe in what way.

Could environmental values (beneficial uses) of water environments be affected?
☐ NYD ☒ No ☐ Yes If yes, identify waterways/water bodies and beneficial uses (as recognised by State Environment Protection Policies)

Could aquatic, estuarine or marine ecosystems be affected by the project?
☐ NYD ☒ No ☐ Yes If yes, describe in what way.

Is there a potential for extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems over the long-term?
☒ No ☐ Yes If yes, please describe. Comment on likelihood of effects and associated uncertainties, if practicable.

Is mitigation of potential effects on water environments proposed?
☐ NYD ☒ No ☐ Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)

14. Landscape and soils

Landscape

Has a preliminary landscape assessment been prepared?
☒ No ☐ Yes If yes, please attach.

Is the project to be located either within or near an area that is:

- **Subject to a Landscape Significance Overlay or Environmental Significance Overlay?**
  ☐ NYD ☐ No ☒ Yes If yes, provide plan showing footprint relative to overlay.

  Refer to Attachment E for planning overlay maps detailing the location of the Landscape Significance Overlay and Environmental Significance Overlay in relation to the site.

- **Identified as of regional or State significance in a reputable study of landscape values?**
  ☐ NYD ☒ No ☐ Yes If yes, please specify.

- **Within or adjoining land reserved under the *National Parks Act 1975* ?**
  ☐ NYD ☐ No ☒ Yes If yes, please specify.

  Dandenong Ranges National Park
  Crown Description: Crown Allotment 2007, Parish of Monbulk
  Address: 1259-1261 Mt Dandenong Tourist Road, Kalorama 3766
  Standard Parcel Identifier: 2007\PP3146

- **Within or adjoining other public land used for conservation or recreational purposes ?**
  ☐ NYD ☐ No ☒ Yes If yes, please specify.

  Gardens of the Dandenong Ranges
  Crown Description: Crown Allotment 2034, Parish of Monbulk
  Address: 10 Chalet Road, Olinda 3788
  Standard Parcel Identifier: 2034\PP3146

Is any clearing vegetation or alteration of landforms likely to affect landscape values?
☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

The removal of trees along the boundary of the fence where there is an interface to a public road with a narrow shoulder is likely to modify the landscape. The Yarra Ranges Planning Scheme seeks to retain a forest landscape, and for large canopy trees and understorey vegetation softening the private and public realm.

Is there a potential for effects on landscape values of regional or State importance?
☐ NYD ☒ No ☐ Yes Please briefly explain response.
The landscape of the Dandenong Ranges is recognised in the local planning scheme. Clause 12.05-1s states that the Dandenong Ranges is a significant environmentally sensitive area. The project would result in the removal of canopy trees and maintenance of the understory along the boundary fence. Existing bushfire planning controls allow the removal of vegetation along the boundary fence to manage bushfire.

Is mitigation of potential landscape effects proposed?
☒ NYD ☐ No ☐ Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)
N/A

Note: A preliminary landscape assessment is a specific requirement for a referral of a wind energy facility. This should provide a description of:

- The landscape character of the site and surrounding areas including landform, vegetation types and coverage, water features, any other notable features and current land use;
- The location of nearby dwellings, townships, recreation areas, major roads, above-ground utilities, tourist routes and walking tracks;
- Views to the site and to the proposed location of wind turbines from key vantage points (including views showing existing nearby dwellings and views from major roads, walking tracks and tourist routes) sufficient to give a sense of the overall site in its setting.

Soils

Is there a potential for effects on land stability, acid sulphate soils or highly erodible soils?
☐ NYD ☐ No ☒ Yes If yes, please briefly describe.

Acid sulphate soils are present in areas situated close to (<100m) Silvan Reservoir. Where the excavation of soils is expected to contain acid sulphate soils, the excavation should be managed in accordance with relevant EPA guidance, including but not necessarily limited to EPA Publication 655.1. Construction practices, which include the preparation of a Construction Environmental Management Plan (CEMP), should be undertaken in accordance with the recommendations contained in the Silvan High Security Fence – Preliminary Soil Contamination Ground Assessment (Attachment G). For further information refer to the Silvan High Security Fence – Preliminary Soil Contamination Ground Assessment (Attachment H – Parts 1 and 2).

The steep terrain across the majority of the western portion of the alignment may be susceptible to instability during construction. Construction practices should be undertaken in accordance with the recommendations contained in the Silvan High Security Fence – Geotechnical Desktop Assessment (Attachment I – Part 1).

Are there geotechnical hazards that may either affect the project or be affected by it?
☐ NYD ☐ No ☒ Yes If yes, please briefly describe.
The Silvan High Security Fence – Geotechnical Desktop Assessment (Attachment I – Parts 1 and 2) identified the potential geotechnical hazards as variable ground conditions, shallow rock foundations, reactive soils, perched or hallow ground water, dispersive soils, fill material and potential settlement of excavated area or due to dewatering. The assessment also identified the

potential effects include impacts to nearby infrastructure, landslide and ground instability. The assessment recommends construction practices to manage and mitigate potential impacts.

Other information/comments? (eg. accuracy of information)

15. Social environments

Is the project likely to generate significant volumes of road traffic, during construction or operation?

☐ NYD ☒ No ☐ Yes If yes, provide estimate of traffic volume(s) if practicable.

Is there a potential for significant effects on the amenity of residents, due to emissions of dust or odours or changes in visual, noise or traffic conditions?

☐ NYD ☒ No ☐ Yes If yes, briefly describe the nature of the changes in amenity conditions and the possible areas affected.

Is there a potential for exposure of a human community to health or safety hazards, due to emissions to air or water or noise or chemical hazards or associated transport?

☐ NYD ☒ No ☐ Yes If yes, briefly describe the hazards and possible implications.

Is there a potential for displacement of residences or severance of residential access to community resources due to the proposed development?

☐ NYD ☒ No ☐ Yes If yes, briefly describe potential effects.

Are non-residential land use activities likely to be displaced as a result of the project?

☐ NYD ☒ No ☐ Yes If yes, briefly describe the likely effects.

Do any expected changes in non-residential land use activities have a potential to cause adverse effects on local residents/communities, social groups or industries?

☐ NYD ☒ No ☐ Yes If yes, briefly describe the potential effects.

Is mitigation of potential social effects proposed?

☒ NYD ☐ No ☐ Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)
N/A

Cultural heritage

Have relevant Indigenous organisations been consulted on the occurrence of Aboriginal cultural heritage within the project area?

☐ No If no, list any organisations that it is proposed to consult.

☒ Yes If yes, list the organisations so far consulted.

- Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation (Wurundjeri Corporation) are the Registered Aboriginal Party (RAP) for the project area.
- We are currently undertaking a Cultural Heritage Management Plan (CHMP) with consultation with Wurundjeri Corporation. The CHMP will include conditions and management measures.

What investigations of cultural heritage in the project area have been done?
(attach details of method and results of any surveys for the project & describe their accuracy)

- A due diligence assessment report was prepared by Jacobs in January 2024.
- The report included a review of the relevant State and Commonwealth heritage legislation; an assessment of the historical land use and current conditions in the project area; a review of the landform assessments previously conducted within the project area; a search of relevant registers and databases for recorded Aboriginal and historical heritage within and surrounding the project area, including a search of the Victorian Aboriginal Heritage Register (VAHR), and statutory and non-statutory heritage listing databases targeting a 1 km radius around the project area; a literature review of prior heritage assessments relating to the project area, both previous CHMPs and archaeological surveys and relevant historical assessments; GIS and mapping; and a site visit.
- The site inspection found that whilst part of the project area has been disturbed due to logging and construction of the road, the majority of the project area has not undergone any major disturbances. A hill overlooking the Reservoir was noted to be of high archaeological sensitivity during the site inspection.
- At the time the report was prepared, the project area was not within 50 of any registered Aboriginal Place. Two VAHR places, KC2 (VAHR 7922-0627) and KC1 (VAHR 7922-0626), were 60m and 90m from the project area, respectively.

Refer to Attachment J for the Cultural Heritage Due Diligence Assessment Report.

Is any Aboriginal cultural heritage known from the project area?

☒ NYD ☒ No ☒ Yes If yes, briefly describe:

- Any sites listed on the AAV Site Register
  - N/A
- Sites or areas of sensitivity recorded in recent surveys from the project site or nearby
  - Lyrebird Gully Creek (Regulation 26(1))
  - Olinda Creek (Regulation 26(1))
  - Dandenong Ranges National Park (Regulation 32(1))
  - Hill overlooking the Reservoir of high archaeological sensitivity
- Sites or areas of sensitivity identified by representatives of Indigenous organisations
  - N/A

Are there any cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the *Heritage Act 1995* within the project area?

☒ NYD ☒ No ☒ Yes If yes, please list.

- There are no heritage places listed on the Heritage Register or the Archaeological Inventory; however, there is one registered historical heritage place in the project area: R J Hamer Forest Arboretum & Woolrich Nursery Lookout (HO278).

Is mitigation of potential cultural heritage effects proposed?

☒ NYD ☒ No ☒ Yes If yes, please briefly describe.

- All historical archaeological sites in Victoria are protected, whether they are listed or not and there remains a moderate to high potential for unidentified heritage places, including historical archaeological sites. A heritage survey was recommended to identify historical sites within the project area.
- There is one listed historical heritage place within the project area and the likelihood of previously unidentified historical heritage being present has been assessed as moderate to high. The proposed works are not located within the historical heritage place.

Other information/comments? (eg. accuracy of information)

16. Energy, wastes & greenhouse gas emissions

What are the main sources of energy that the project facility would consume/generate?

☒ Electricity network. Sources of operational energy use are limited to: lighting, security systems, and two electronic gates. During construction: site offices / facilities, tools and machinery. Energy use is estimated to be insignificant.
☐ Natural gas network.
☐ Generated on-site.
☐ Other.

What are the main forms of waste that would be generated by the project facility?

☒ Wastewater. Wastewater may be generated construction site facilities (toilets, kitchen, etc).
☐ Solid chemical wastes.
☒ Excavated material. Material may be excavated for site access and fence footings.
☒ Other. Trees or vegetation may be cleared.

Please provide relevant further information, including proposed management of wastes.

What level of greenhouse gas emissions is expected to result directly from operation of the project facility?

☒ Less than 50,000 tonnes of CO_2 equivalent per annum
☐ Between 50,000 and 100,000 tonnes of CO_2 equivalent per annum
☐ Between 100,000 and 200,000 tonnes of CO_2 equivalent per annum
☐ More than 200,000 tonnes of CO_2 equivalent per annum

Please add any relevant additional information, including any identified mitigation options.

Operational energy requirements limited to the security system, this is expected to be significantly less than 50,000 tonnes of CO_2 equivalent per annum.

17. Other environmental issues

Are there any other environmental issues arising from the proposed project?

☒ No ☐ Yes If yes, briefly describe.

18. Environmental management

What measures are currently proposed to avoid, minimise or manage the main potential adverse environmental effects? (if not already described above)

☒ Siting: Please describe briefly

The proposed fence is to be located on the alignment of the existing fence to avoid and minimise the impacts to the landscape, native vegetation and habitat. The majority of the existing alignment is located within an existing slashed fuel-break. Alternative alignments would require traversing structurally intact patches of native vegetation which are likely to contain comparable or greater number of threatened flora and habitat for a suite of threatened fauna. Note that the existing fuel-break has already been cleared of all understorey vegetation except a low, slashed field-layer, meaning that the current condition of fauna habitat for most species in this location would not be further degraded by the proposed works if situated in the break.

☒ Design: Please describe briefly

The type of anti-dig fencing was modified during the design process to avoid and minimise impacts to the root zones of large canopy trees.

☒ Environmental management: Please describe briefly.

The works are to be undertaken in accordance with the following requirements to avoid and minimise the impact on the environment:

- To the extent possible and subject to safe working conditions, access to works and the undertaking of works is to utilise previously cleared tracks and cleared staging areas. The area for access and works is to respond to the site conditions present on both sides of the existing/proposed fence. Where a large work zone is applied on one side of the fence, then the other must employ a smaller work zone in accordance with the principles below.
- The removal of the existing fence and construction of the new fence is to be limited to the construction zone to avoid and minimise the impact on the environment. The construction zone is to be:
    - Where the understorey is generally void of native vegetation on one side, and is intact on the other, then the following is to apply:
        - Up to three metres within land that has intact native vegetation in the understorey, and
        - Up to 10 metres within land that is generally void of native vegetation in the understorey, and
        - Where there is a parallel fire access track to the fence, then the construction zone is limited on that side to the area between the fence and the furthest edge of the fire access track.
    - Where the understorey is intact on both sides of the fence, then the following is to apply:
        - Up to three metres on the outside of the fence, and
        - Up to 10 metres on the side of the fence.
- The following trees adjacent to the boundary fence would be removed:
    - Trees within three metres of the inside of the boundary fence
    - Trees within one metre of the outside of the boundary fence
- The removal of any other vegetation other than as described above is to be avoided to the extent possible, except where:
    - the tree is on a slant and all of the canopy is wholly within the three-metre security zone above the fence, or
    - the vegetation is in an area where a section of the fence is to be realigned, or
    - the vegetation is in an area where a gate is to be relocated and modification of a fire access track is required, or
    - the poor health and stability of the tree is a potential hazard to buildings and structures, including the high security fence.
- Please also refer to mitigation measures detailed in Section 12 above.

☐ Other: Please describe briefly

Add any relevant additional information.

19. Other activities

Are there any other activities in the vicinity of the proposed project that have a potential for cumulative effects?

☐ NYD ☒ No ☐ Yes If yes, briefly describe.

There are no approved, funded projects that have the potential for a cumulative effect.

20. Investigation program

Study program

Have any environmental studies not referred to above been conducted for the project?

☒ No ☐ Yes If yes, please list here and attach if relevant.

Has a program for future environmental studies been developed?

☒ No ☐ Yes If yes, briefly describe.

Consultation program

Has a consultation program conducted to date for the project?

☐ No ☒ Yes If yes, outline the consultation activities and the stakeholder groups or organisations consulted.

Melbourne Water has engaged with relevant authorities about the proposed fence and impacts to the environment, as follows:

- Parks Victoria
- Department of Transport and Planning, State Concierge
- Department of Transport and Planning, Impact Assessment Unit
- Department of Energy, Environment and Climate Action, Forest Fire Management
- Yarra Ranges Shire Council
- Country Fire Authority

Melbourne Water has engaged with Yara Ranges Shire and MadCow regarding the concept for a shared use path/pedestrian path along Monbulk Road.

Melbourne Water will engage with the community and stakeholder groups as it continues to progress through the planning and environmental approval processes.

Has a program for future consultation been developed?

☐ NYD ☐ No ☒ Yes If yes, briefly describe.

Authorised person for proponent:

I, Nazish Azhar,

Project Manager, Melbourne Water, confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature Nazish Azhar

Date: 22/10/2024

Person who prepared this referral:

I, Benjamin Mahon,

Principal Environmental Planner, Jacobs Australia Pty Ltd, confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature 

Date: 22/10/2024