



Aitken Boulevard Non Drinking Water and Drinking Water Mains

Yarra Valley Water

Aitken Boulevard Non Drinking Water and Drinking Water Mains - Planning Permit and EPBC Bilateral Assessment Documentation

Revision 1.3

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Executive Summary

This report has been prepared on behalf of Yarra Valley Water to support State and Commonwealth environmental and planning approval requirements for the Aitken Boulevard Non-Drinking Water and Drinking Water Mains (the Project).

The report identifies impacts to native vegetation which includes impacts to Matters of National Environmental Significance (MNES). 3.357 Ha of native vegetation is required to be removed to facilitate the development of the project. This native vegetation removal will result in the following impacts to MNES:

- 3.357 Ha of Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) ecological community – Critically Endangered
- Golden Sun Moth (*Synemon plana*) (GSM) – Critically Endangered
- Matted Flax-lily (*Dianella amoena*) (MFL) – Endangered
- Striped Legless Lizard (*Delma impar*) (SLL) – Vulnerable

As a result of these impacts a comprehensive offset package has been developed to adequately compensate for the residual impacts relating to the Project actions in accordance with State and Commonwealth offsetting policy and guidelines.

This report determines that proposed impacts are necessary to facilitate the development of the Project.

Native vegetation proposed for removal will not result in any material detriment to any person or person(s). Environmental impacts will be managed to ensure the delivery of improved environmental outcomes in regards to offsets sought and construction practices undertaken.

1. Introduction

1.1 Overview

This report has been prepared by Jacobs on behalf of Yarra Valley Water (YVW) for the purposes of supporting a planning permit application to Hume City Council for the removal of native vegetation associated with the construction Aitken Boulevard Non-Drinking Water (NDW) and Drinking Water (DW) Mains (the Project). It also supports the draft Assessment Reporting requirements under Item 2.1(e) of the Bilateral Agreement made under Section 45 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) relating to environmental assessment and responds to the *Generic Scope for Proponent Assessment Documentation under the EPBC Act Bilateral Agreement 2014* (Bilateral Agreement Appendix A).

The Bilateral Agreement seeks to strengthen intergovernmental cooperation on the environment and minimise costs to business whilst maintaining high environmental standards. The agreement enables the Commonwealth to rely on the Victorian planning permit application assessment process under the *Planning and Environment Act 1987* for approvals under the EPBC Act. This report meets both requirements for a planning permit application under the *Planning and Environment Act 1987* and under the Draft Assessment Reporting under Section 45 of the *Environment Protection and Biodiversity Conservation Act 1999*.

The combined process will enable YVW to meet its environmental legislation objectives and requirements more efficiently and robustly under a combined Commonwealth and State approvals process.

This report is supported by an Ecology Report of the Project alignment prepared by Jacobs (Appendix B). In addition to providing field survey, the Ecology Report has also undertaken a review of all previous relevant ecological assessments to provide a comprehensive summary of the nature and extent of flora and fauna values within the Project area, and to determine the amount of removal required to facilitate the construction of the Project.

1.2 Background

The Project comprises Mild Steel Concrete Lined (MSCL) pipework approximately 3.5 kilometres long. These pipes are approximately 300 to 375mm wide and are designed to be pressurised to carry water quickly and efficiently from source to users.

The Project consists of two pipes adjacent to each other and are proposed to follow the future Aitken Boulevard (future Road) alignment, in Mickleham. The land in the Southern Section of the Project area has been partly reserved by VicRoads for future road acquisition, with the complete road reservation to be established in the near future. The Project alignment in the Northern Section intersects private land in the proposed AMP Mickleham Business Park development at 255-285 Donnybrook Road), Mickleham.

The *Northern Growth Area (NGA), Drinking and Non Drinking Water Transfer* (YVW 2014) identifies the Project as critical in the extensive transfer and distribution infrastructure required to support urban growth. As current infrastructure in this area of Melbourne is currently insufficient to meet future servicing needs, the Project will in 2040 and beyond provide primary water services to approximately 9,300 residential properties and 1,100 Ha of employment land in the Mickleham area.

The DW mains component of the Project is on the western side of the future Aitken Boulevard road reserve, whilst the NDW main component is on the eastern side. The Project will connect the existing Mt Ridley Road water mains to the Donnybrook Road water mains. A summary of the location of the Project is provided below in Figure 1.1 and Figure 2.1

The Project is defined as a minor utility installation, as such; the use and development of the mains do not require a planning permit pursuant to Clause 62.02-1 of the Hume Planning Scheme. However, as the proposed mains will impact on and require the removal of areas of native vegetation, a planning permit is required pursuant to Clause 42.01 (Environmental Significance Overlay) and Clause 52.17 of the Hume Planning

Scheme. A planning permit will also be required for the creation of access from Donnybrook Road pursuant to Clause 52.29 to facilitate access and allow construction activities to be undertaken.

In addition to impacts to the abovementioned planning approval requirements, the Project will impact on Commonwealth Matters of National Environmental Significance (MNES), related to the removal of native vegetation and associated communities and species contained within.

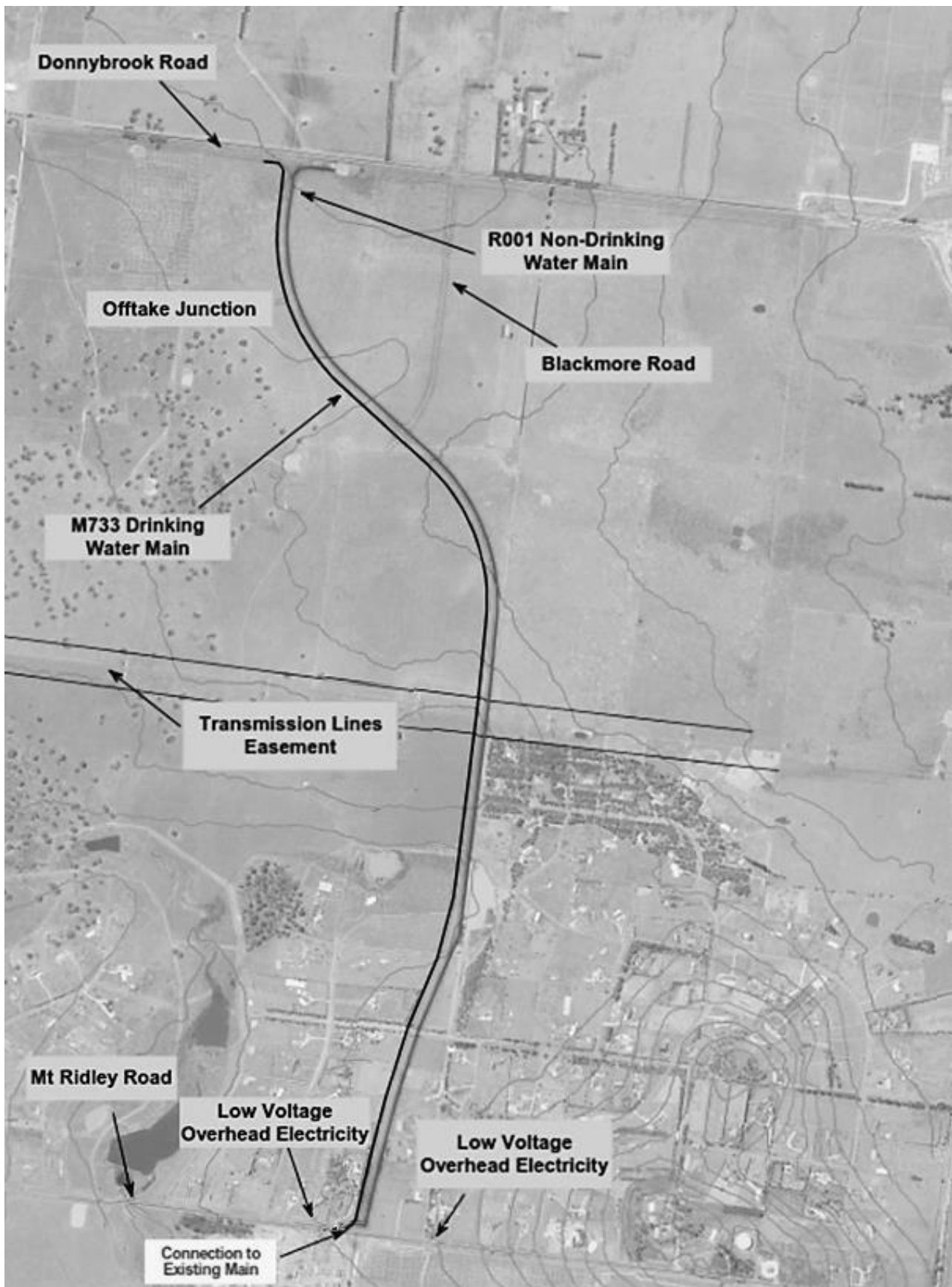


Figure 1.1 : Aitken Boulevard NDW and DW Main Overview

source:Jacobs 2016

2. Project Area and Surrounds

2.1 Project Area

The Project area is located within Melbourne's Urban Growth Boundary, approximately 30kms north of the Melbourne Central Business District in Mickleham, within the Hume City Council as shown in Figure 2.1 below. It is generally located between Donnybrook Road (in the north) and Mt Ridley Road (in the south), with the Hume Freeway located to the east as shown in Figure 2.2.



Figure 2.1 : Overview map showing the approximate location of the proposed works in Greater Melbourne
source: openstreet maps

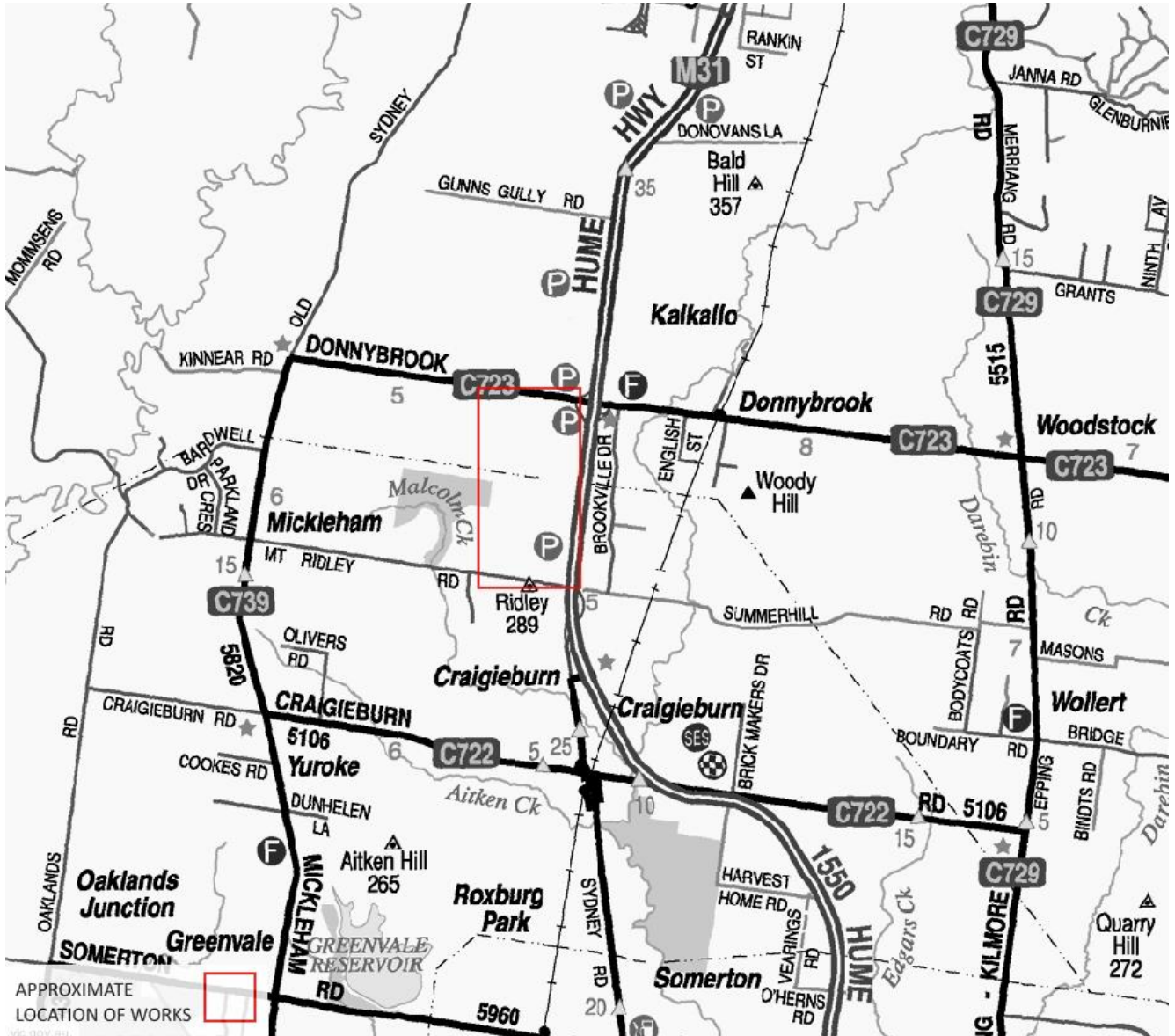
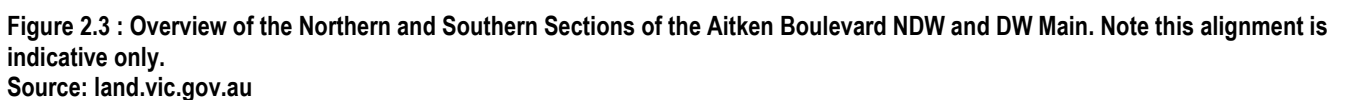


Figure 2.2 : Subject site as located between Donnybrook Road to the north and Mt Ridley Road to the south
source: land.vic.gov.au

The site is broken up into two parts as shown in Figure 2.3 below. The northern and southern sections are explained in detail below.



2.1.1 Northern Section

The entire northern section has a long history of grazing, including ploughing and sowing down to improved pasture. The area is typical of pastoral land in the area, with limited native vegetation. Basalt is also present at the within some areas (see Figure 2.4 below).



Figure 2.4 : Photo looking north from the Transmission line towards Donnybrook Road source: Yarra Valley Water 2016

As a result of previous land uses, the northern section of the Project area has been substantially cleared of original native vegetation, with native remnants limited to a large area of River Red Gum (*Eucalyptus Camaldulensis*) dominated woodland and a number of areas of treeless grassland south west of the site.

The northern section is wholly covered by the Folkestone Employment Area Precinct Structure Plan (FEAPSP) and is currently zoned for future industrial and commercial land uses.

Some further construction activities to the south of Donnybrook Road, have resulted in highly modified landscape as shown in Figure 2.5 below.



Figure 2.5 : Photo looking east along the southern edge of Donnybrook Road (to the left of shot), area has been significantly impacted by construction activities
source: Yarra Valley Water 2016

2.1.2 Southern Section

Similarly to the northern section, the Project alignment follows the future Aitken Boulevard road reserve through the southern section. This area was historically also used for the purposes of agriculture, however, from the late 1980s agricultural activities in this area were constrained as a result of road reservation and the development of an “Inter Urban Break”¹. Subsequently, the southern section was developed over time for rural living purposes.

Limited agricultural operation within the southern section has therefore resulted in a significant linear stretch of uninterrupted grassland (see figure Figure 2.6 below).

¹ Defined in this case as an area of land that differs substantially in per lot dwelling density. The inter urban break is considered to be the difference between standard density single dwelling suburban subdivisions of 200-400 sq. m to those lots that contain a single dwelling on 2000 sq. m blocks. This creates a substantial difference in land use, with substantially more open space contained in the larger blocks.



Figure 2.6 : Southern section of the Aitken Boulevard Non Drinking Water and Drinking Water Mains alignment
source: Jacobs 2016

The grasslands within the southern section are considered to be of very high quality and include the presence of EPBC Act listed threatened grassland communities and related species (see Appendix B).

The extent of environmental values are however limited to the Aitken Boulevard reserve, with extensive low density development to the east and west of the reserve.

2.2 Surrounding Area

The surrounding area is characterised as peri-urban with land uses generally transitioning from urban in the south to rural in the north.

South of Mt Ridley Road is the established urban area of Craigieburn, characterised by standard residential allotments and commercial land uses.

North of Mt Ridley Road, larger rural living allotments of 2 hectares plus dominate, which transitions to rural land north of the transmission line.

The Mount Ridley Nature Conservation Reserve is to the west of the Project area and forms a significant reserve containing a mixture of grass and woodlands.

East of the Project area in the northern section south of Donnybrook Road is the Commonwealth Department of Agriculture's Australian Quarantine and Inspection Service site at 135 Donnybrook Rd, Mickleham.

North of Donnybrook Road is land that is subject to future urban growth as part of the Merrifield Central Employment Area which will provide for a mixture of future industrial and commercial activities. Currently this land is used for rural or agricultural pursuits.

The landform in the Project area supports gently undulating stony plains and ephemeral drainage lines with the soil throughout the area mostly consisting of black cracking uniform clays suitable historically for grazing.

The Merri Creek corridor lies approximately two kilometres to the east of the Project area and supports a high diversity of fauna and flora species, many of which are of state and national significance.

Figure 2.7 above provides a visual summary of the parcels of land affected by the project.

The northern section of the alignment is proposed to be built across 2 parcels of land (Lot 1 and 2 on Lodged Plan 210243) which is currently owned by Folkestone (Bayside) Pty Ltd. A 46m wide road reservation for the future Aitken Boulevard is shown on the title of Lot 1 and 2 on Lodged Plan 210243.

The southern section of the alignment is owned by VicRoads, and currently managed by Hume City Council.

Table 2.1 below, provides a summary of the land parcels that the Project will intersect. There are no caveats, encumbrances or easements attached to these titles that would otherwise affect the delivery of the project. Certificates of title for the following parcels are attached at Appendix C.

Table 2.1 : Land tenure

Parcel	Address	Public/Private	Owner
Lot K on Plan of Subdivision 416613 (K\PS416613)	300 Mt Ridley Road Mickleham 3064	Public	Roads Corporation (VicRoads)
Lot 1 on Lodged Plan 210243 (1\LP210243)	225-285 Donnybrook Road Mickleham 3064	Private	Folkestone (Bayside) PTY LTD
Lot 2 on Lodged Plan 210243 2\LP210243	225-285 Donnybrook Road Mickleham 3064	Private	Folkestone (Bayside) PTY LTD

3. Description of the Project (Proposed Action)

3.1 Construction Details

3.1.1 Construction plan

At the time of this submission, it is proposed to simultaneously construct the Project from both Mt Ridley Road and Donnybrook Road and connect the pipes at the centre of the Project area. However, there is potential for this to change, with a possible preference being to construct one main at a time. Should the second construction approach be pursued, then the DW main (Easter Side of Aitken Boulevard) will be constructed prior to the NDW main (Western side of Aitken Boulevard).

At the northern end of the Project alignment, the DW main component connects to an existing DW distribution main in Donnybrook Road at the western side of the future Aitken Boulevard. The NDW mains component will connect to a distribution main in Donnybrook Road.

At the southern end the DW main component connects to a main on the western side of the future Aitken Boulevard at Mt Ridley Road. The NDW mains component will connect to a main on the western side of the future Aitken Boulevard.

The connections are on the north side of Mt Ridley Road as the existing MSCL offtakes from the DW main and NDW mains cross Mt Ridley Road.

Details of the proposed construction overview can be found at Appendix D.

3.1.2 Capital Expenditure

Table 3.1 : Summary of estimated construction costs

Costs	M733 DW Main	R001 NDW main
Direct Costs	\$ 2,668,700	\$ 2,899,700
Indirect Costs	\$ 698,900	\$ 739,300
Design and Investigation Costs	\$202,700	\$ 202,700
Contingency	\$ 3570,300	\$ 3,841,700
Total Project Cost	\$ 4,284,500	\$ 4,610,100

3.1.3 Timing of Construction

The Project is needed in time for summer 2017 demand to provide an alternative source of supply to new urban developments along Donnybrook Road. The proposed date of commissioning is October 2017.

Table 3.2 below outlines the estimated construction schedule of approximately 31 weeks for a non-accelerated program using a single pipe laying crew and an estimated accelerated construction program of 21 weeks.

Table 3.2 : Estimated Construction schedule - standard

Week	Activity	Comments
1-10	Procurement of pipe and fittings	Contractor to procure MSCL and PE pipe, fittings and all other items
9-10	Mobilisation and site preparation	
11-26	Lay pipe, install valve arrangements, make connections, backfill	16 weeks for single crew

Week	Activity	Comments
		Reduced to 10 weeks by adding second crew
27-29	Testing and Commissioning	
30-31	Reinstatement and Demobilisation	

3.1.4 Infrastructure Elements

- a) The proposed DW mains component of the Project consists of the following infrastructure elements:
- 3513m (Approx.) of 300-375mm nominal diameter (DN) MSCL water main, constructed via open cut construction.
 - 110m of Outside Diameter (OD) 355mm Polyethylene (PE) 100mm diameter Standard Dimensional Ratio (SDR) 11 main by open cut construction
 - Connection to existing M692 MSCL main located in Donnybrook Road
 - Connection to existing M729 MSCL main located south of Donnybrook Road)
 - Connection to existing M703 MSCL main located in Mt Ridley Road
 - Hydrants, scours and valves located to suit YVW operation requirements along the length of DW main
 - DN225 valved offtake for future reticulation main
 - DN150 valved offtake for future reticulation main
 - DN150 valved offtake for future reticulation main at future Blackmore Road
 - DN225 valved offtake for future reticulation main at transmission easement
- b) The proposed NDW mains component of the Project consists of:
- 3636m (Approx.) of DN225-DN375 MSCL main by open cut construction.
 - 105m of OD355 PE100 SDR11 main by open cut construction
 - Connection to existing R001 MSCL main (located in Donnybrook Road)
 - Connection to existing R002 MSCL main (located in Mt Ridley Road)
 - Hydrants, scours and valves located to suit YVW operation requirements along the length of DW main
 - DN225 valved offtake for future reticulation main

These infrastructure components can be found detailed at Appendix D.

3.1.5 Construction Corridor

The site ground conditions consist of high strength basalt underlying clay at varying depths. Excavation of high and very high strength moderately to slightly weathered basalt is expected to be difficult using conventional excavation equipment and may require ripping or rock-breaking equipment.

Due to these geotechnical constraints the Project will be constructed using open trench construction at approximately 1 – 2 metres deep. This will require an excavation width of approximately 1 – 1.5 metres. In order to facilitate this excavation activity, construction consisting of two 10 metre impact corridors has been assumed from Mt Ridley Road to the transmission line easement in the north. These corridors will accommodate impacts related to:

- all excavation activities required to accommodate the laying of the pipe
- the movement of excavation vehicles and trenching equipment either side of the pipe corridors

All excess excavated material and rock created as a result of excavation will be disposed of offsite. No excess material will be spread over the construction corridor.

All construction activities including access tracks, storage and laydown areas are to be restricted to the *constrained construction footprint plan* as specified at Appendix D.

3.1.6 Access

Access will be from both Mt Ridley Road and Donnybrook Road. The creation of new access is therefore required from both Mt Ridley Road and Donnybrook Road.

It is noted that a planning permit will be required for the creation of access from Donnybrook Road, and a referral required to VicRoads to determined access arrangements.

- The expected access point is at the location where the E14/Aitken Blvd corridor terminates at Donnybrook and Mt Ridley Roads as per the alignment prepared by Jacobs (see Appendix D).
- Expected traffic is trucks associated with delivery of pipe, excavation/construction plant and personal transport.
- Construction works are expected to take place over 4 months, tentatively scheduled to begin in 2017.
- A semi-permanent (in place at least until construction of the formal Aitken Blvd roadway) access Track is proposed.
- YVW will construct the access Tracks and gates along the construction corridor through the northern and southern sections to facilitate vehicle access by YVW. .
- Access Track and gates will remain post the reinstatement of the construction corridor to provide access by YVW for the purpose of future maintenance of the DW Pipeline and NDW Pipeline. (construction corridor being the entire zone that YVW will require for the construction works.)
- All access tracks are within the construction corridor described. All impacts related to the access tracks are considered within the construction corridor.

Consultation and permission will be required from Hume City Council for the creation of access to and from Mt Ridley Road. Consultation and permission will be required from VicRoads for the creation of access to and from Donnybrook Road.

3.1.7 Storage and Laydown Areas

The full 46m construction corridor of the northern section of the alignment is proposed to be primarily used for storage and laydown areas for the project for both the northern and southern sections as there are no ecological constraints. Some limited storage and laydown will be utilised within the constrained construction footprint plan as described at Appendix D.

3.1.8 Restoration of the Site

Reinstatement of existing surface conditions will be in accordance with specific Clauses contained within the Conditions of Contract except where landscaping, vegetation and pavement reinstatement works are required as per any Hume City Council and / or DELWP requirements.

An access track adjacent the NDW main component of the Project is to be retained upon completion of works to a standard that is suitable for operation and maintenance. All fences and gates will be reinstated as specified in the detailed design drawings.

4. Description of Environmental Impacts

4.1.1 Impact to Native Vegetation under the *Planning and Environment Act 1987*

The Project construction corridor will necessitate the removal of 3.357 ha of native vegetation. Assessment against the *Permitted Clearing of Native Vegetation Biodiversity assessment guidelines* (DEPI 2013) has determined that:

- The required native vegetation removal is located within the high-risk risk based pathway of Location Risk B
- The required native vegetation removal is defined as a remnant patch, consisting of approximately 3.357 ha of remnant grassland
- The strategic biodiversity score of the native vegetation to be removed is determined to be 0.282
- The offset requirement consists of:
 - 0.419 general units
 - 1.535 specific units for Matted Flax-lily
- Under the high-risk based pathway the habitat hectare of the native vegetation has been calculated in the field and provided in Table 4.1 below.

Table 4.1 : Summary of losses and gain targets of patches of native vegetation

Habitat Zone	HZ1a	HZ1b	HZ1c	HZ1d
Habitat Hectares of loss	0.272	0.265	0.609	0.696

Impact areas are described in detail in the Ecology Report at Appendix B.

4.1.2 Impact to Matters of National Environmental Significance under the *Environment Protection and Biodiversity Conservation Act 1999*

The proposed action is considered to have a significant impact on listed threatened species and communities protected by sections 18 & 18A of the EPBC Act. The MNES to be impacted include:

- 3.357 Ha of Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) ecological community – Critically Endangered
- Golden Sun Moth (*Synemon plana*) (GSM) – Critically Endangered
- Matted Flax-lily (*Dianella amoena*) (MFL) – Endangered
- Striped Legless Lizard (*Delma impar*) (SLL) – Vulnerable

Table 4.2 below provides further information regarding the direct or indirect impact to MNES.

Table 4.2 : Impacts to MNES

MNES	Direct/Indirect	Comment
Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) ecological community	Direct	The impact to 3.357 Ha of NTGVVP will be direct as this community is abundant along the length of the impact corridor. Excavation and construction activities will permanently remove this community from the road corridor.

MNES	Direct/Indirect	Comment
Golden Sun Moth (<i>Synemon plana</i>)	Direct	Golden Sun Moth have previously been recorded within the impact corridor and it is determined that the removal of NTGVVP will have a direct impact on GSM habitat.
Matted Flax Lily (<i>Dianella amoena</i>)	Direct	Four Matted Flax Lily individuals were determined to be directly impacted on by the project. The approximate area of occupancy of these individuals is 28m ² . As a result direct management regarding translocation of these individuals has been considered and discussed further at Table 4.3 below (also see Appendix B).
Striped Legless Lizard (<i>Delma impar</i>)	Direct (if species is determined to be present)	No Striped-Legless lizards have been determined present along the impact corridor. However, should individuals be discovered specific strategies will be developed to manage impacts to individuals during construction activities. These management methods are discussed at Table 4.3 below.

4.1.3 Relationship between impacts under State and Commonwealth Federal Legislation

All native vegetation identified for removal meets the criteria for the Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) EPBC Act listed endangered ecological community. The 3.357 Ha of native vegetation requiring removal is therefore recognised as requiring approval under both State and Commonwealth legislation.

4.2 Details of proposed avoidance and mitigation measures

Initial ecological assessment completed by Jacobs in 2016 as a part of the preliminary design of the Project identified that native grasslands and threatened species present along the southern section of the Project alignment are of high ecological value. The initial assessment recommended that where possible the final construction corridor within the southern section of the alignment should be reduced in an attempt to avoid any impact to ecological values and reduce the requirement to source specific offsets.

As a result Jacobs undertook a Multi-Criteria Analysis (MCA) assessment of the possible alignment options to reduce the construction corridor and associated environmental impact and offset costs within the southern section. The MCA Report can be found attached at Appendix E.

The alignment options considered in the MCA were:

- **Base Case** (Functional Design) – open trenched, along both sides of proposed road with a **40 m** width construction corridor (full width of the future road acquisition area)
- **Option B** – Open trenched, along both sides of the proposed road, reducing construction corridor in highly sensitive areas in the southern section (Approximately **10m** construction corridor on each side)
- **Option C** – Open trenched, on one side of the proposed road, reducing construction corridor in highly sensitive areas in the southern section (Approximately **15m** construction corridor)
- **Option D** – Bored in sensitive areas, along both sides of the proposed road.

Southern Section

The MCA identified **Option B** along both sides of the future Aitken Boulevard, reducing construction corridor in highly sensitive areas in the southern section from the original 40 metre Base Case to 20 metres as the recommended option for the Project alignment.

The construction corridor was revised as a result of the MCA. In the southern section of the alignment, a 10m wide corridor from the property boundary will be utilised in order to minimise the offsets required. Areas within the southern section outside of this corridor are no-go zones and are to be protected.

Two additional 10m wide cross-overs between the pipe corridors were also located at approximately 500m spacing in the southern section of the Project alignment. These are specified within the *constrained construction footprint plan* at Appendix D.

Northern Section

The entire 46m width of the road reserve will be used in the northern section of the alignment for ease of construction, as there were no areas of high ecological value determined along this section. There are no stands of native vegetation identified from previous assessment that will be impacted by the proposed works. This area falls under a previous EPBC referral 2013/6913 and as such all activities will be undertaken in accordance with this approval. Planning permission is not required for this area, as it has been previously assessed and is within the Folkestone Native Vegetation Precinct Plan as shown at Appendix H.

4.2.1 Alternative to proposed action

The Project is proposed to construct within an area that has been earmarked for the purposes of a future road, which is reflected in Development Plans for the Folkestone Employment Precinct. The location of high impact activity such as excavation has been co-located within an area subject to a change of land use. In this regard, YVW has sought to minimise locating this infrastructure in an area committed for medium to long term urban development. Alternatives to the proposed action were not considered, as direct access is required between southern and northern water infrastructure.

4.3 Residual Impacts/Offset package

The project will result in the removal of native vegetation along the construction corridor which includes the removal of MNES species and communities as identified. There are likely to be no further residual impacts post construction.

In considering the proposed native vegetation removal, Jacobs in conjunction with YVW has developed a robust offset and environmental management package to ensure that the impacts to this reserve of high quality grassland are appropriately compensated.

In order to meet legislative requirements, a package of offsets has been obtained to adequately compensate for impacts to MNES and the planning approval requirements under the Hume Planning Scheme and in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (October 2012)

Detail of this offset package can be found at Appendix D of the Ecology report (Appendix B). A summary of the offsets and management approaches are provided below in Table 4.3.

Table 4.3 : Summary of offset and management approaches

MNES	Relevant documents	Offset/Management Plan
Natural Temperate Grassland of the Victorian Volcanic Plain and Western (Basalt) Plains Grassland	Action Statement No. 182. Central Gippsland Plains Grassland, Forest Red Gum Grassy Woodland, Northern Plains Grassland, South Gippsland Plains Grassland, Western (Basalt) Plains Grassland. (DSE 2003)	<p>Direct offsets in accordance with section 4.2.1 of the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> (October 2012)</p> <p>Avoidance and mitigation of impacts in regards to this community cannot be avoided as no other appropriate corridors for infrastructure connection exist between the communities between Donnybrook Road and Mt Ridley Road.</p> <p>In addition the infrastructure requires future ease of access and has been collocated in a proposed future road reserve for this purpose.</p>

MNES	Relevant documents	Offset/Management Plan
		<p>Impacts have been limited by the reduction of the proposed construction corridor in the southern section of the alignment. This has approximately halved the required removal from 7.8Ha to 3.57Ha.</p> <p>As such, specific offsets for Matted Flax-lily are to be secured through Vegetation Link are located within the Victorian Volcanic Plain Bioregion, EVC types are Plains Woodland, Plains Grassy Woodland and Grassland and the offset meets the definition of NTGVVP.</p> <p>These offsets have been assessed to comply with the current <i>EPBC Act Environment Offset Policy</i> including the <i>Offsets Assessment Guide</i> in addition to Victorian State offsetting requirements (see Appendix B)</p>
Matted Flax-lily	<p><i>National Recovery Plan for the Matted Flax-lily (Dianella amoena)</i> (Carter 2010)</p> <p>Specific objective 7: Undertake translocations to bolster existing populations or establish new populations</p>	<p>Direct offsets in accordance with section 4.2.1 of the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> (October 2012)</p> <p>Specific offsets are currently being secured through Vegetation Link. A salvage and translocation plan will be prepared for Matted Flax-lily. Formal development of the offsets are being undertaken currently for a site selected as appropriate for offsets (See Appendix D of the Ecology Report)</p> <p>Three potential proposed translocation sites for Matted Flax-lily have been identified. Two translocation sites have been short listed for their existing on title ongoing management and in principle support of the landowner (Hume City Council).</p> <p>Hume City Council has provided in principle support for the use of two translocation sites, within 5km of the project area. These sites currently operate under approved environmental management plans and are viable for the receipt of translocated MFL individuals. The sites include:</p> <ul style="list-style-type: none"> Amberfield Conservation Reserve, Cragieburn – Current Environmental Management Plan in place to ensure the ongoing prescribed actions to conserve MFL. Management plan detailed at Appendix B. Malcolm Creek Nature Reserve, Cragieburn – Current Management Plan in place with particular prescribed actions to maintain MFL and encourage growth. Management plan detailed at Appendix B <p>In addition a third site, the Mt Ridley Conservation Reserve is being assessed for its appropriateness for the receipt of translocated individuals. This site is managed by Parks</p>

MNES	Relevant documents	Offset/Management Plan
		Victoria. Jacobs are currently seeking in principle support from Parks Victoria for the potential receipt of MFL individuals into this reserve as an alternative to the sites listed above (see Appendix B).
Golden Sun Moth	<i>Action Statement No. 106. Golden Sun Moth (Synemon plana)</i> . (DSE 2004)	<p>Direct offsets in accordance with section 4.2.1 of the <i>Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy</i> (October 2012)</p> <p>Specific offsets for MFL to be secured through Vegetation Link are located within the Victorian Volcanic Plain Bioregion, EVC types are Plains Woodland, Plains Grassy Woodland and Grassland. Plains Grassy Woodland and Grassland within the Victorian Volcanic Plain bioregion are considered habitat for Golden Sun Moth. The offset site also includes habitat for GSM, with studies undertaken previously confirming their presence in significant numbers (see Appendix B).</p> <p>These offsets have been assessed to comply with the current <i>EPBC Act Environment Offset Policy</i> including the <i>Offsets Assessment Guide</i> in addition to Victorian State offsetting requirements (see Appendix B).</p>
Striped Legless Lizard	<p><i>National Recovery Plan for the Striped Legless Lizard (Delma impar) 1999-2003</i> (Smith and Robertson 1999)</p> <p><i>Action Statement No. 17 Striped Legless Lizard (Delma impar)</i> (DSE 2003)</p>	<p>To mitigate impacts to Striped Legless Lizard, a Construction Environmental Management Plan (CEMP) will be prepared outlining protocols and commitments to management methods, trenching and rehabilitation. The methods proposed have been developed in consultation with and approved in principle by DELWP. These are proposed to include but not limited to:</p> <ul style="list-style-type: none"> An accredited and authorised consultant under the Wildlife Act 1975 to detect Striped Legless Lizard (SLL) individuals across the proposed impact area. Detection method to be determined but will likely be a combination of roof-tile survey and active searches. Individuals to be relocated outside the impact zone to the Mount Ridley Nature Conservation Reserve immediately west of the Aitken Blvd easement. This reserve is considered to be an extension of the existing home range of SLL. An authorised consultant under the Wildlife Act 1975 to be present on site during construction to detect and relocate individuals. Preferred time for detection surveys during spring when SLL are more active and easier to see, they are also more likely during this time to move out of the way of machinery in response to noise and vibration. Backfill or cover trenches overnight with no more

MNES	Relevant documents	Offset/Management Plan
		<p>than 10 m of exposed trench overnight.</p> <ul style="list-style-type: none"> Construct temporary fauna fencing around open trenches overnight, comprising shade cloth and star pickets blocking off the trench. <p>Specific offsets for MFL to be secured through Vegetation Link also include modelled habitat for SLL.</p>

4.3.1 Alternative specific offset arrangement

Due to a lack of specific offsets currently available on the market, the alternative specific offset arrangement will be applied to this project as per the *Alternative specific offset arrangements (DELWP 2015)*. YVW is currently in the process of finalising these offsets. Further detail regarding offset management can be found at Appendix D of the *Ecology Report*.

4.4 Social and Economic Impacts

Social impacts resultant from the Project will be limited as a result of the utilisation of land reserved for a road and avoiding impact to social and community assets such as parks and recreation areas. The Project will provide a positive economic impact to the area, providing water services to growing communities in Melbourne's north. Additionally, the Project will also facilitate the distribution of non-drinking water to these communities thereby reducing the burden on potable water supplies.

The economic impact of these non-drinking water distribution services result in lower ongoing water costs and enable other environmental assets such as sporting grounds, parks and green recreation area to receive water during longer hotter summers.

4.5 Environmental Record of Persons Proposing to undertake the Project

YVW's environmental policy commits the organisation to provide water and sewerage services within the carrying capacity of nature. All works will be conducted in accordance with YVW's environmental policy.

YVW has established an Environmental Policy and Strategic Intent to provide services within the carrying capacity of nature and inspire others to do the same. The Company reports its performance annually through a Sustainability Report. The Environmental Policy is available at <https://www.yvw.com.au/about-us/our-strategy>.

5. Hume Planning Scheme

The following Section 5 provides an assessment of the Project against the Hume Planning Scheme as required for Applications for a planning permit under the *Planning and Environment Act 1987*. The assessment contained provides determines and addresses planning permit requirements as required by the Hume Planning Scheme.

5.1 Planning Context

The Project is located within the Hume City Council and is therefore subject to the provisions of the Hume Planning Scheme.

The Hume Planning Scheme contains the State Planning Policy Framework (SPPF), Local Planning Policy Framework, including the Municipal Strategic Statement, (LPPF), zones and overlays as well as Particular and General Provisions.

Section 5.1.1 and 5.1.2 below provides an outline of the planning definitions, a summary of the planning permit triggers under the Hume Planning Scheme and a brief assessment of the proposal against relevant sections of the planning scheme.

5.1.1 Land Use Definitions

The Hume Planning Scheme contains land use definitions which are relevant to the proposal. These are described in Table 5.1 below.

Table 5.1 : Relevant Definitions

Clause 72 and 74	Definition	Applicability
Minor Utility Installation	Land used for a utility installation comprising: a) sewerage or water mains; ... “	The proposed pipeline is a minor utility installation that will transfer water via a main between urban developments. A planning permit is not required to use or develop land for a minor utility installation.
Native Vegetation	Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses	Vegetation proposed to be removed to facilitate the construction of the pipelines is native.

5.1.2 Planning Permit Triggers (Zones and Overlays)

Table 5.2 below provides an analysis of the planning permit triggers as defined by the planning zones and overlays which intersect the Project. The table summarises the planning scheme requirements. Detailed mapping of relevant zones and overlays as they apply to the Project area is found at Appendix F.

Table 5.2 : Summary of Zone and Overlay Planning Permit Triggers

Planning Zone/Overlay	Comments	Planning Permit Required Y/N		
		Use	Building and Works	Vegetation (all types)
Zones				
Clause 34.02 Commercial 2 Zone (C2Z)	There are no triggers for the use of land under the zones specified. In addition	N	N	N/A

Planning Zone/Overlay	Comments	Planning Permit Required Y/N		
		Use	Building and Works	Vegetation (all types)
Clause 35.03 Rural Living Zone (RLZ)	there is no building and works requirements of for a minor utility within these zones.	N	N	N/A
Overlays				
Clause 42.01 Environment Significance Overlay Schedule 5 (Mount Ridley Grassland and Woodland) (ESO5)	The project will intersect these overlays south of the transmissions line. A permit will be required for the removal of native vegetation in accordance with these overlays in that place.	N/A	N	Y
Clause 42.01 Environment Significance Overlay Schedule 11 (River Red-Gum and Grassy Woodlands) (ESO11)	Clause 5 of Schedule 11 to Clause 42.01 (ESO11) will required a referral to DEWLP as the Determining referral authority. A Detailed assessment of the proposal against these overlays is found at Appendix G	N/A	N	Y
Clause 43.04 Development Plan Overlay Schedule 8 (Rural Residential Area) (DPO8)	The project utilises the proposed Aitken Road Boulevard and will not impact upon the future proposed uses of the land under the DPO8.	N/A	N	N
Clause 43.04 Development Plan Overlay Schedule 17 (' Employment Precinct, 135 – 285 Donnybrook Road, Mickleham ') (DPO17)	The removal of vegetation is consistent with the Folkestone Native Vegetation Precinct Plan. The project utilises the proposed Aitken Road Boulevard as presented in the <i>Schematic Concept Plan SP0134 Revision 1</i> prepared by Taylors, Development Strategists.	N/A	N	N

5.2 State Planning Policy Framework

The SPPF comprises general principles for land use and development of land and outlines specific policies dealing with settlement, environment, housing, economic development, infrastructure, and particular uses. The policies outlined in the SPPF must be taken into account when responsible authorities are assessing planning permit applications.

Specific clauses of the SPPF which are relevant to the amendment application are:

- Clause 12.01-1 Protection of biodiversity
- Clause 12.01-2 Native vegetation management
- Clause 19.03-2 Water supply, sewerage and drainage

A detailed assessment against the relevant provisions of the SPPF is located in Appendix G.

5.3 Local Planning Policy Framework

The LPPF provides the local and regional strategic policy context for the Hume City Council. It comprises the Municipal Strategic Statement and specific local planning policies. The LPPF must be consistent with the SPPF and should generally demonstrate how state planning policies are being implemented in a local context.

The following provisions of the LPPF are relevant to this application:

- Clause 21.04-1 Infrastructure Provision
- Clause 21.05-1 Biodiversity

A detailed assessment against the relevant provisions of the LPPF is located in Appendix G.

5.4 Particular and General Provisions

Particular Provisions provide specific requirements for particular uses and developments. The Particular Provisions are consistently applied across Victoria in addition to the requirements of a zone or overlay. In some cases local requirements can be added to a schedule for the relevant provision. General Provisions contain operational matters such as existing use rights, administrative provisions, ancillary activities and referral of planning permit applications.

The following particular and general provisions are applicable to the proposal.

5.4.1 Clause 52.16 Native Vegetation Precinct Plan

The purpose of Clause 52.16 (Native Vegetation Precinct Plan) is to:

To ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity. This is achieved through the following approach:

- *Avoid the removal of native vegetation that makes a significant contribution to Victoria's biodiversity.*
- *Minimise impacts on Victoria's biodiversity from the removal of native vegetation.*
- *Where native vegetation is permitted to be removed, ensure that an offset is provided in a manner that makes a contribution to Victoria's biodiversity that is equivalent to the contribution made by the native vegetation to be removed.*

To manage native vegetation to minimise land and water degradation.

To manage native vegetation near buildings to reduce the threat to life and property from bushfire.

Clause 52.16-3 requires a permit to remove, destroy or lop any native vegetation, including dead native vegetation. This does not apply:

- *If the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan incorporated into this scheme. Any conditions or requirements in the plan must be met.*
- *To the removal, destruction or lopping of native vegetation specified in the table to Clause 52.16-4, unless a native vegetation precinct plan specifies otherwise.*

Folkestone Native Vegetation Precinct Plan

The Folkestone Native Vegetation Precinct Plan (NVPP) applies to all native vegetation within Lot 1 and Lot 2 on Lodged Plan 2102343, known as 225 – 285 Donnybrook Road, Mickleham, in the northern section of the

project area. Based on the Folkestone NVPP, no permit will be required for the removal of native vegetation within those areas specified under *Map 2 C98 – Native Vegetation to be Retained/Removal/Areas Where Permit to Remove Native Vegetation is not necessary* of the Folkestone NVPP (see Appendix H).

The Project affects areas outside of habitat zones identified in the Folkestone NVPP. There is no native vegetation identified that is within the Project alignment based on the Folkestone NVPP.

Assessment against the Folkestone NVPP has therefore determined that no permit is required for the removal of vegetation as a result of the Project within the Folkestone NVPP.

5.4.2 Clause 52.17 Native Vegetation

The purpose of Clause 52.17 (Native Vegetation) is:

To ensure permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity. This is achieved through the following approach:

- *Avoid the removal of native vegetation that makes a significant contribution to Victoria's biodiversity.*
- *Minimise impacts on Victoria's biodiversity from the removal of native vegetation.*
- *Where native vegetation is permitted to be removed, ensure that an offset is provided in a manner that makes a contribution to Victoria's biodiversity that is equivalent to the contribution made by the native vegetation to be removed.*
- *To manage native vegetation to minimise land and water degradation.*
- *To manage native vegetation near buildings to reduce the threat to life and property from bushfire.*

Clause 52.17-2 requires a planning permit to remove, destroy or lop native vegetation, including dead native vegetation unless removal of native vegetation is specifically exempt. The proposed native vegetation removal to facilitate the construction of the pipeline is not exempt from requiring a planning permit.

A total of 3.357 ha of native vegetation is required to be removed as a result of the Project in the southern section which is outside of the Folkestone NVPP. This 3.357 ha of native vegetation is subject to the Clause 52.17 of the Hume Planning Scheme and a permit will be required for its removal.

Relevant Risk Based Pathway

The removal of native vegetation within the southern section has been determined to be under the high risk-based pathway, under location Risk B.

Required Native Vegetation Offsets

The following Table 5.3 provides a summary of the amount of offsets required.

Table 5.3 : Offset requirements if a permit is granted

Offset type	General Offset
General offset amount (general biodiversity equivalence units)	0.419 general units
General Offset Attributes	
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Hume City Council
Minimum Strategic biodiversity score	0.282

Offset type	General Offset
Offset type	General Offset
Specific offset amount (specific biodiversity equivalence units) and attributes	1.535 specific units of habitat for Matted Flax-lily

A detailed assessment against the relevant provisions of the Clause 52.17 is located in Appendix G.

5.4.3 Clause 52.29 Land Adjacent to a Road Zone Category 1, or a Public Acquisition Overlays for a Category 1 Road

Clause 52.29 requires a permit for the creation of alteration of access to or from a Road Zone, Category 1 (RDZ1).

A permit is therefore required for the creation of temporary construction access from Donnybrook Road. In addition a referral to VicRoads as the determining referral authority is required.

5.4.4 Clause 62.02-1 Buildings and works not requiring a permit

Clause 62.02-1 (Buildings and works not requiring a permit) exempts buildings and works associated with a minor utility installation from requiring a planning permit.

Clause 62.02-1 states:

Any requirement in this scheme relating to the construction of a building or the construction or carrying out of works, other than a requirement in the Public Conservation and Resource Zone, does not apply to:

- *Buildings and works associated with a minor utility installation.*

As the proposed alignment does not interact with any PCRZ zoned land and the proposed pipeline is defined as a 'minor utility installation' a planning permit will not be required for buildings and works.

5.4.5 Clause 66.02-2 Referrals and Notice Provisions - Native vegetation

Clause 66.02-2 specifies that the application must be referred to the Secretary of DELWP. Referral is required:

- *To remove, destroy or lop native vegetation if the area to be cleared is 0.5 hectare or more.*
- *To remove, destroy or lop native vegetation for the following class of application based on the risk-based pathway as defined in the Permitted clearing of native vegetation – Biodiversity assessment guidelines (Department of Environment and Primary Industries, September 2013):*
 - *high risk-based pathway.*
- *To remove, destroy or lop native vegetation if a property vegetation plan applies to the site.*
- *To remove, destroy or lop native vegetation on Crown land which is occupied or managed by the responsible authority.*

DELWP will be a recommending referral authority as native vegetation removal as more than 0.5 hectares of native vegetation is proposed to be removed.

In addition DELWP is the determined referral authority for applications to removal native vegetation pursuant to Clause 42.01 (ESO11).

As such a referral is required to DELWP to determine the application in regards to native vegetation removal pursuant to Clause 52.17 and Clause 42.01 (ESO11)

6. Planning and Environment Approvals

6.1.1 Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth) (EPBC Act)

Bilateral agreement made under section 45 of the EPBC Act relating to environmental assessment

The Project was referred to the Commonwealth Department of Environment and Energy (DoEE) on 18 November 2016 under EPBC Act reference 2016/7818. The project was determined to be a 'controlled action' under Section 75 of the EPBC Act (see Appendix A).

Engagement with the DoEE, DELWP and the Hume City Council to determine an appropriate approvals pathway was undertaken through late 2016 and early 2017.

It was determined that the Projects' impacts to MNES would be assessed under the Bilateral (assessment) Agreement between the Commonwealth and State to enable a coordinated assessment of the project. This was largely due to:

- All impacts to MNES encompassing all impacts to State Native Vegetation under 52.17;
- Impacts are well established, with three different studies from different experts undertaken to verify the nature and extent of ecological values related to the projects impacts;
- State approvals limited largely to native vegetation impacts (and not for other planning matters such as use of land or building and works);
- The project is discrete and relatively uncomplicated from a land use and environmental impact perspective; and,
- The proponent (YVW) has consented to the use of the process for the Project.

As result of this determination, the project is to be assessed under the accredited planning permit process set out within Part 7 (item 2.1(e)) of Schedule 1 of the Bilateral (Assessment) Agreement (enclosed at Appendix A)

The process enables the utilisation of the planning permit process to determine an EPBC Act Approval Decision.

6.1.2 Environment Effects Act 1978 (EE Act)

In Victoria, an assessment of the potential environmental impacts or effects of a proposed development may be required under the EE Act.

The process under the EE Act is not an approval process itself; rather it enables statutory decision-makers (Ministers, local government and statutory authorities) to make decisions about whether a project with potentially significant environmental effects should proceed.

Projects which might warrant a referral to the Minister for Planning include projects with the potential to trigger some, or a combination of the following thresholds:

- *clear 10 ha or more of native vegetation from an area with an Ecological Vegetation Class identified as endangered, or is likely to be, of very high conservation significance;*
- *potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria;*
- *potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia;'*
- *potential extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term;*

- *potential extensive or major effects on the health, safety or well-being of a human community, due to emissions to air or water or chemical hazards or displacement of residences; and*
- *potential greenhouse gas emissions exceeding 200,000 tonnes of carbon dioxide equivalent per annum, directly attributable to the operation of the facility.*

None of the referral criteria are triggered by the proposal and a referral will not be made to the Minister for Planning under the EE Act.

6.1.3 Aboriginal Heritage Act 2006 (AH Act)

The AH Act provides for the protection and management of Victoria's Aboriginal heritage.

The *Aboriginal Heritage Regulations 2007* (the Regulations) gives effect to the AH Act. The Regulations set out the circumstances in which a Cultural Heritage Management Plan (CHMP) is required to be prepared, and the standards for the preparation of a CHMP.

The risk of impact to Aboriginal archaeological heritage within the Project area was determined to be low. A mandatory CHMP was not determined to be required as the project does not fall within an area of Cultural Heritage Significance. There are no registered Aboriginal places within the project area.

Based on prior studies for development of the Merrifield West Precinct (CHMP 11705), it was concluded that landforms elevated above the plain had potential to be archaeologically sensitive. However, following a program of complex assessment comprising nine 1 x 1 m test pits and 55 shovel test pits across both plain and ridgeline landforms, no Aboriginal Places were recorded. In addition, no large trees were identified within the alignment.

Jacobs has determined additionally that a voluntary CHMP is not recommended based on complex testing results from these previous studies (desktop assessments) and evidence of prior ground disturbance recorded during the landform assessment (site inspection).

6.1.4 Flora and Fauna Guarantee Act 1988 (FFG Act)

The *Flora and Fauna Guarantee Act 1988* is the primary legislation dealing with biodiversity, conservation and sustainable use of native flora and fauna in Victoria that applies to public land.

A Permit to Take will be required from DELWP for the project for impacts to threatened species Golden Sun Moth and Matted Flax-lily², and the threatened Western (Basalt) Plains Grassland community (see Appendix B).

6.1.5 Catchment and Land Protection Act 1994 (Vic)

The *Catchment and Land Protection Act 1994* identifies and classifies certain species as noxious weeds or pest animals, and provides a system of controls on noxious species. Three declared noxious weeds are present within the construction corridor of the southern section and are considered as part of the grassland identified within the alignment. These are Artichoke Thistle (*Cynara cardunculus*), Chilean Needle Grass (*Nassella neesiana*) and Gorse (*Ulex europaeus*). Appropriate weed control and hygiene methods will be employed during development of the site to ensure that noxious weeds are not spread.

6.2 Stakeholder Engagement

As part of the approvals process, stakeholders affected by the Project have been engaged by YVW and Jacobs to ensure adequate communications regarding impacts, scheduling and approval requirements.

Relevant correspondence regarding the Project is summarised in Table 6.1 below.

² This will include but is not limited to the development of an appropriate translocation plan in accordance with the FFG Act and in consultation with Council and State Government stakeholders.

Table 6.1 : Summary of Key Correspondance

Stakeholder	Key Correspondence Details	
	Date	Details
Morris Naqvi, Hume City Council	04/08/2016	Confirmation with Hume City Council regarding planning permit requirements for preliminary geotechnical work and confirmation of Aitken Boulevard Road Alignment.
Danilo Isma, Hume City Council	04/08/2016	Confirmation of road alignment. Road alignment confirmed in principle subject to YVW obtaining relevant approval from stakeholders. Works approval from relevant council department required prior to construction.
Noel Murphy, Frank Deserio, VicRoads	04/08/2016	Consulted with VicRoads regarding access to the Aitken Boulevard Alignment (southern section) for site investigations. Confirmed road alignment with VicRoads.
Linas Spokevicius, AusNet (Distribution Company for transmission lines)	04/08/2016	Consultation for site access for Investigations.
Neil McLeod AusNet (Distribution Company for transmission lines)	02/08/2016	Confirmed project details. AusNet Services' has no objections to the proposed water main crossing the easement, but if metallic, the pipe should be sectionalised at the easement boundaries. Ensure the pipe is electrically sectionalised
Neil Bryson AMP (Developer)	04/08/2016	Confirmed project details and site access
Andrew Tamme, Taylors (Developer)	15/08/2016	Confirmed project details and road alignment
Amanda Dodd (Hume City Council) Environmental Coordinator	18/08/2016	Preliminary discussion regarding Environmental Approvals requirements and known impacts to native vegetation.
Amanda Dodd (Hume City Council) Environmental Coordinator, Richard Boekel (DELWP)	21/10/2016	Discussion of approvals strategy for EPBC, State and local environmental approval requirements.
Helen Searle (Commonwealth Department of Environment and Energy)	02/11/2016	Discussion of approvals strategy for EPBC and known impacts to MNES
Geoff Ralphs (DELWP) Principal Advisor, Impact Assessment	23/11/2016	Preliminary discussion with Environmental Impact Assessment and the suitability of utilising bilateral agreement to management impacts to MNES and State Native Vegetation Requirements
Amanda Dodd (Hume City Council) Environmental Coordinator, Richard Boekel (DELWP), Geoff Ralphs (DELWP – EIA Team)	30/11/2016	Overview of approvals strategy including utilisation of Bilateral Agreement under s.45 of EPBC Act. Confirmation of Bilateral Agreement Approach
Amanda Dodd (Hume City Council) Environmental Coordinator, Richard Boekel (DELWP),	16/01/2017	Project update, overview of approvals strategy including utilisation of Bilateral Agreement under s.45 of EPBC Act. Confirmation of Bilateral Agreement Approach
Patrick Mora (Hume City Council) Strategic Planning Coordinator, Amanda Dodd (Hume City Council) Environmental Coordinator	16/02/2017	Pre-application discussion for planning permit application and submission of EPBC Assessment Documentation

Stakeholder	Key Correspondence Details	
	Date	Details
Alan Webster (DELWP) Manager Healthy Landscapes	19/04/2017	In principle support of Striped Legless Lizard (SLL) mitigation measures.
Amanda Dodd (Hume City Council) Environmental Coordinator	24/04/2017	In principle support of Matted Flax-Lily (MFL) translocation site selection.

Conclusions

The Project is a critical component of the Northern Growth Corridor South, Water Supply Strategy and will provide primary water services to approximately 9,300 residential properties and 1,100 ha of employment land in the Mickleham area from 2040.

The Project works are defined as a minor utility installation, and therefore, the use and development of the Project does not trigger the need for a planning permit pursuant to Clause 62.02-1 of the Hume Planning Scheme.

A permit will be required for the creation of access from Donnybrook Road, pursuant to Clause 52.29. A referral to VicRoads will be required to determine this aspect of the application.

A permit will be required for the removal of 3.357 ha native vegetation to develop the Project, planning approval for the removal of native vegetation is required pursuant to:

- Clause 42.01 Environmental Significance Overlay Schedule 5 (Mt Ridley Grassland and Woodland)
- Clause 42.01 Environmental Significance Overlay Schedule 11 (River Red-Gum and Grassy Woodlands)
- Clause 52.17 of the Hume Planning Scheme.

Vegetation removed under Clause 52.17 will be offset as per the requirements of the *Permitted Clearing of Native Vegetation Biodiversity Assessment Guidelines* (DEPI 2013).

An assessment of the Project demonstrates compliance with the relevant decision guidelines of the Hume Planning Scheme. The Project alignment and construction methods have been developed to minimise the removal of native vegetation, whilst appropriate offsetting will be provided to account for specific impacts to Matted Flax Lily under Clause 52.17.

In addition to the requirements of the Hume Planning Scheme under Clause 52.17, the Project will also impact on MNES as determined in referral to DoEE under the EPBC Act. These impacts are limited to the following MNES:

- Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP)
- Golden Sun Moth
- Striped Legless Lizard
- Matted Flax Lily

This assessment, has considered impacts to MNES in addition to State environmental requirements. As such a comprehensive suite of environmental offsets have been secured to meet both State and Commonwealth offsetting requirements. The colocation of this offsetting package will ensure the impacts resultant from the Aitken Boulevard NDW and DW main are adequately compensated for and offsets are secured in a robust manner.

The proposed vegetation removal is necessary to facilitate the development of the Aitken Boulevard NDW and DW Main to service the Northern Growth Corridor. The area of native vegetation removal takes place in a road reserve, identified to be developed at a later stage.

Vegetation proposed for removal will not result in any material detriment to any person or person(s). Jacobs accordingly respectfully submits that public notice of the planning permit under Section 52 of the *Planning and Environment Act 1987* is not required.