Hydro Tasmania

Tarraleah Redevelopment Project
Development Application

# Planning Report

## Hydro Tasmania pays respect to the rich, long and ongoing history of the Traditional Owners and Custodians and their connections to land, sea and community.

The mountains, natural lakes and rivers that capture and channel water for hydropower are rich in Aboriginal history, culture and tradition. We acknowledge ongoing connection to culture and custodianship of the lands and waters of places we share. We pay our respect to Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

**COVER IMAGE**
Penstocks at the existing Tarraleah hydropower scheme.

# Executive Summary

## This proposal relates to the redevelopment of the Tarraleah Hydropower Scheme, the Tarraleah Redevelopment Project (the Project), to replace end of life assets and provide a more flexible and efficient scheme to ensure a reliable and safe renewable energy source into the future.

The Project is located near Tarraleah in the Central Highlands local government area, approximately 125 km northwest of Hobart, Tasmania. It extends from Lake King William via Tarraleah to either Dee Lagoon or Liapootah (dependent on which of two transmission line options is constructed) in a broadly linear manner and will have a total permanent above ground operational footprint of up to 114.5 ha (assuming the Liapootah transmission line option is preferred).

The key permanent components of the Project are outlined below:

- An approximately 4.2 km headrace pipeline and associated service roads, connecting the Lake King William tunnel (under construction) to the headrace tunnel
- An approximately 9.5 km low-pressure headrace tunnel
- An approximately 2.3 km high-pressure power tunnel that splits into two short penstocks before entering the power station
- A partially underground power station with an installed capacity of approximately 180 MW (peak capacity 190 MW) and rated flow of 60 $m^3/s$, located adjacent to the existing Tarraleah Power Station
- A surge facility consisting of a 70 m above-ground surge tower and an associated 265 m underground surge shaft to control water pressure in the headrace and power tunnels
- A pumping station (capacity approximately 6 $m^3/s$) and a 0.8 km rising main to transfer water from the existing No. 2 Pond to the power and headrace tunnels via the surge tower
- A transformer yard and switchyard near the power station, connecting it to the proposed transmission line
- A new 22 kV power supply from the existing 22 kV network to the western, mid-access and Paddy's Quarry portals, the pump station, surge tower and power station, to provide power during construction and operation
- A new 220 kV transmission line. Two options are currently being considered, with only one to be constructed:
    - A 14 km double-circuit line from the existing Tungatinah Switchyard to a new tee at Dee Lagoon (northern option)
    - A 15 km double-circuit line from the proposed Tarraleah Switchyard to the existing Liapootah Substation (southern option).
- Access tunnels, portals and roads to reach the headrace and power tunnels. Excess spoil from tunnel, power station and portal excavations will be stored in one of three permanent spoil emplacement areas at the western portal, mid-tunnel access portal and Paddy's Quarry portals.

Construction of underground works will use drill-and-blast techniques, possibly supported by a tunnel boring machine. Above-ground works will use conventional earthmoving and mechanical excavation.

To support construction, the following temporary infrastructure is proposed:

- A construction compound at Tarraleah Village, supported by smaller compounds at each tunnel portal and the power station. These will house site administration and workshops, handle and store materials and equipment, and include concrete batching and crushing/screening plant.
- Three explosive magazines, located off Butlers Gorge Road, for storing explosives used in excavation.
- A temporary bridge over the Nive River to facilitate construction of the power station.

Upon completion, all temporary construction sites will be rehabilitated.

Access to the Project site is afforded primarily by the Lyell Highway and Butlers Gorge Road. The transmission line around Dee Lagoon is accessed via Victoria Valley Road and the remainder of the transmission line is accessed via various minor/unnamed roads from the Lyell Highway.

Development is proposed primarily over land managed by Sustainable Timber Tasmania (STT), and Hydro-electric Corporation. There are several additional parcels managed by Parks and Wildlife Service (PWS), the Department of State Growth (DSG) and TasNetworks. The full list of land parcels intersecting the Project are listed in section 2.1.

Key potential impacts associated with the construction and operation of the Project environment are:

- Clearance of up to 224.3 ha of native vegetation (including clearance to facilitate construction) including 0.5 ha of *Diplarrena latifolia* rushland that listed as a threatened vegetation community under Schedule 3A of the *Nature Conservation Act 2002* (NC Act). Up to 3 ha of *Sphagnum* peatland (ASP) may be indirectly impacted by the Project due to hydrological changes associated with the decommissioning of part of Canal No. 2 and construction of the headrace tunnel. Sphagnum peatland is listed as a threatened native vegetation community under the Tasmanian NC Act, and it is also a component of the Alpine Sphagnum Bogs and Associated Fens TEC, which is listed as endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- Vegetation clearance also has potential to impact flora species and habitat for fauna species listed under the *Threatened Species Protection Act 1995* (TSP Act) and/or EPBC Act.
- Disturbance of Aboriginal heritage sites and potential areas of sensitivity (PAS) during ground disturbing works.
- Increase in light and heavy vehicle movements on Butlers Gorge Road and the Lyell Highway associated with the transport of materials, equipment and workforce during construction. No increase in vehicle movement is anticipated during operation of the Project.
- Impacts to visual amenity resulting from the construction of new above ground infrastructure.
- Increase in bushfire risk arising from the construction of the Project and impacting the Project.

It has been determined that the Project is subject to a Level 2C assessment under Section 24 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act) and an Environmental Impact Statement (EIS) has been prepared. The Project was also determined to be a 'controlled action' and is subject to assessment under the EPBC Act (reference 2025/10226).

The Project intersects five different zones under the Tasmanian Planning Scheme (TPS) (Rural Zone, Environmental Management Zone, Recreation Zone, Village Zone, and Utilities Zone).

Based on the planning assessment documented within this planning report, discretions are triggered under four zones (village, rural, environmental management, and utilities). These pertain to the discretionary use of development, size of development area, as well as the height of the proposed surge tower, power station, and transmission line towers. Assessment of these aspects against the performance criteria demonstrates that it is possible to achieve compliance without detriment to the general amenity.

Nine codes are also intersected by the Project with five identified to potentially be impacted; the natural assets code with regard to the removal of vegetation and impacts on protected coastal areas, and the flood-prone area hazards code, relating to sections of the transmission line. Pursuant to provisions of the natural assets code, however, development that is assessed as a Level 2 Activity under the EMPC Act is exempt from assessment against this Code. The Project is subject to a Level 2 assessment under EMPC Act and therefore the exemption applies. Assessment against the relevant provisions of the flood-prone areas hazard code indicates that the works will not result in additional flood risk for the subject or adjacent land.

The Project is considered to satisfactorily meet the requirements of the TPS.

# Glossary

| | |
|---|---|
| **AHT** | Tasmanian *Aboriginal Heritage Act 1975* |
| **CHLPS** | Central Highlands Local Provisions Schedule |
| **Coastal Policy** | The Tasmanian Coastal Policy |
| **DCCEEW** | Department of Climate Change, Energy, the Environment, and Water |
| **DSG** | Department of State Growth |
| **EMPC Act** | Tasmanian *Environmental Management and Pollution Control Act 1994* |
| **EPA** | Tasmanian Environmental Protection Authority |
| **EPBC Act** | Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* |
| **EPC** | Engineering, Procurement and Construction |
| **EPP** | Environment Protection Policies |
| **ESI Act** | Tasmanian *Electricity Supply Industry Act 1995* |
| **FID** | Financial Investment Decision |
| **FPP** | Forest Practices Plan |
| **GWh** | Gigawatt hours |
| **GRP** | Glass Reinforced Pipe |
| **HEC Act** | Tasmanian *Hydro-Electric Corporation Act 1995* |
| **kV** | Kilovolt |
| **LUPA Act** | Tasmanian *Land Use Planning and Approvals Act 1993* |
| **MNES** | Matters of National Environmental Significance |
| **MW** | Megawatt |
| **NC Act** | Tasmanian *Nature Conservation Act 2002* |
| **NEM** | National Electricity Market |
| **NEPM** | National Environment Protection Measures |
| **NPRM Act** | Tasmanian *National Parks and Reserves Management Act 2002* |
| **PAL Policy** | The State Policy of the Protection of Agricultural Land |
| **PMST** | Protected Matters Search Tool |
| **PTPZL** | Permanent Timber Production Zone Land |
| **PWS** | Tasmanian Parks and Wildlife Service |
| **RAA** | Reserve Activity Assessment |
| **RMPS** | Resource Management and Planning System |
| **SFMC** | Tasmanian State Fire Management Council |
| **SPP Act** | Tasmanian *State Policies and Projects Act 1993* |
| **SPWQM** | The State Policy on the Water Quality Management |
| **STRLUS** | Southern Tasmanian Regional Land Use Strategy |
| **STT** | Sustainable Timber Tasmania |
| **TWWHA** | Tasmanian Wilderness World Heritage Area |
| **WM Act** | Tasmanian *Water Management Act 1999* |

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# 1. Introduction

This development application (DA) is for the redevelopment of the Tarraleah hydropower scheme to replace aging infrastructure and increase the scheme's overall capacity, operational flexibility, and efficiency to meet the evolving needs of the National Electricity Market (NEM).

## 1.1 Tarraleah hydropower scheme

The existing Tarraleah hydropower scheme (Figure 1-1), located in the Central Highlands of Tasmania, is part of Hydro Tasmania's Derwent Power Scheme. It includes a headwater storage at Lake King William, created by the construction of Clark Dam on the River Derwent. Water from Lake King William is released through the Butlers Gorge Power Station and the Nieterana Mini-hydro Power Station, then transferred to the Tarraleah Power Station via two water conveyances—No. 1 Canal and No. 2 Canal. No. 1 Canal delivers water directly to No. 1 Pond; No. 2 Canal transfers water via Mossy Marsh Pond and No. 2 Pond before reaching No. 1 Pond. From No. 1 Pond, water is conveyed to the Tarraleah Power Station through a hilltop pipeline and penstocks. The scheme is highly utilised and generates approximately 634 gigawatt hours (GWh) of largely base load power each year—around 7.3% of Hydro Tasmania's total annual generation.

Commissioned in the 1930s, many of the scheme's assets are now approaching the end of their operational life and require significant investment to avoid the risk of failure and to ensure the continued delivery of reliable, safe, renewable energy into the future.

The redevelopment of the existing Tarraleah hydropower scheme aims to increase the scheme's capacity from 90 megawatts (MW) to approximately 190 MW (peak capacity) and improve operational flexibility and efficiency by providing a direct pressurised connection between Lake King William and a new power station located next to the existing Tarraleah Power Station on the Nive River.

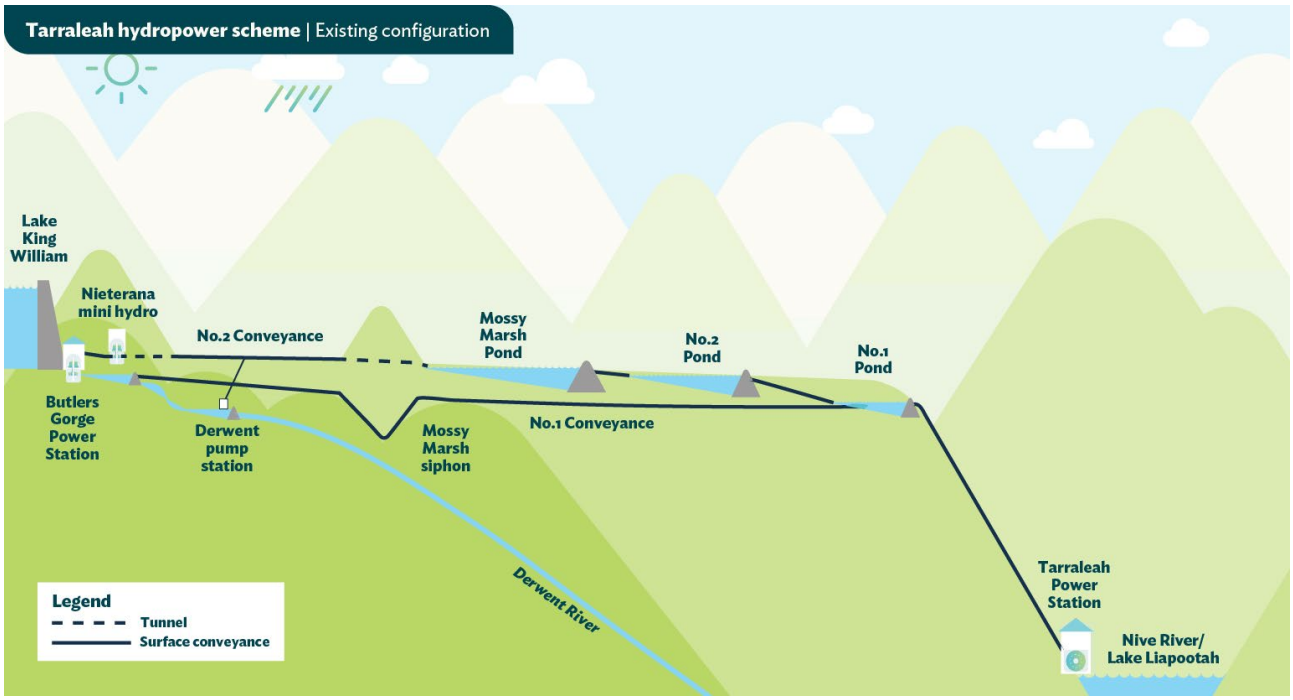



*Figure 1-1: Tarraleah hydropower scheme*

## 1.2 Rationale for redevelopment

The existing Tarraleah hydropower scheme has been generating electricity for Tasmanians for over 85 years; however, it faces physical and operational constraints that make it increasingly unsuitable for the evolving electricity market, and some of its assets are nearing the end of their operational life.

Hydro Tasmania has undertaken a series of studies to assess viable future options for the Tarraleah hydropower scheme, including a pre-feasibility study (2017), feasibility study (2018–2020), and Project design development (2021–2022). These studies identified three key risks associated with continued operation of the existing scheme:

- **Risk of an environmental incident:** Many of Tarraleah's assets, including machinery and water conveyances, are aging. No. 1 Canal presents the highest risk of failure, with an estimated 1-in-50 chance of major failure per year, and a 1-in-20 chance of moderate failure. Large sections of the canal run within 10 metres (m) of the Tasmanian Wilderness World Heritage Area (TWWHA), meaning a failure could have significant environmental consequences. Hydro Tasmania has legal obligations under Tasmanian and Federal law to protect the natural and cultural values of the TWWHA. It is therefore prudent to reduce the risk to a tolerable level by the mid-2030s.
- **Scheme inflexibility:** The current configuration of Tarraleah only supports manual operation and inflexible generation, limiting its ability to respond to electricity market signals or provide the firming capacity needed for system security and reliability. As the electricity market shifts toward higher levels of variable renewable energy (VRE), this inflexibility will become a greater barrier—reducing the scheme's ability to capitalise on opportunities or manage risks associated with increasingly volatile wholesale prices.
- **Future reliability**: Given the age of the power station and its machinery, the risk of operational failure is increasing. Both planned and unplanned outages are expected to become more frequent as equipment continues to age. These disruptions will result in lost output from a scheme that currently contributes around 7% of Tasmania's annual electricity generation.

To address these risks and position the Tarraleah scheme for a future energy market dominated by VRE sources, the following objectives were identified for the new scheme:

- **Enable a transition from baseload to flexible generation**, increasing efficiency and capacity to suit a market with high VRE penetration.
- **Provide inter- and intra-seasonal flexibility**, allowing generation to be paused for days or weeks without water spill, while enabling full output during extended periods of high demand.
- **Mitigate risks associated with aging infrastructure**, particularly No. 1 Canal, hillside penstocks, and the generating units in the existing power station.

Hydro Tasmania explored a range of operational and project alternatives to assess against the objectives outlined above. An integrated approach was used to assess the alternative options, each alternative was evaluated and ranked through a comprehensive assessment that considered multiple impacts in parallel. The options assessment was revised in 2024 with updated cost estimates and revenue projections. The options assessment confirmed that the preferred option was the redevelopment of the Tarraleah hydropower scheme (the Project) as described in Section 2.2. It is the most effective approach at addressing the identified issues, offers the strongest financial metrics, and delivers the greatest overall benefit to Tasmania—aligning with strategic objectives and Hydro Tasmania's Ministerial Charter.

## 1.3 Contact person for development application

The nominated contact person for this DA is:

**Bunfu Yu**
**Senior Planner**
Hydro Tasmania
4 Elizabeth Street
Hobart, TAS 7000
**Bunfu.yu@entura.com.au**

# 2. Proposal

## 2.1 The site

The Project is located near Tarraleah in the Central Highlands local government area, approximately 125 km northwest of Hobart, Tasmania (Figure 2-1). The Project extends from Lake King William via Tarraleah to either Dee Lagoon or Liapootah (dependent on which of two transmission line options is constructed – refer Section 2.2.1) in a broadly linear manner. Access to the Project area is provided by the Lyell Highway and Butlers Gorge Road.

Bradys Lake and Bronte Lagoon are situated approximately 6 km and 10 km northeast of the Project area, respectively. The Project is located close to the Tasmanian Wilderness World Heritage Area (TWWHA), with some components situated within the Tarraleah Conservation Area.

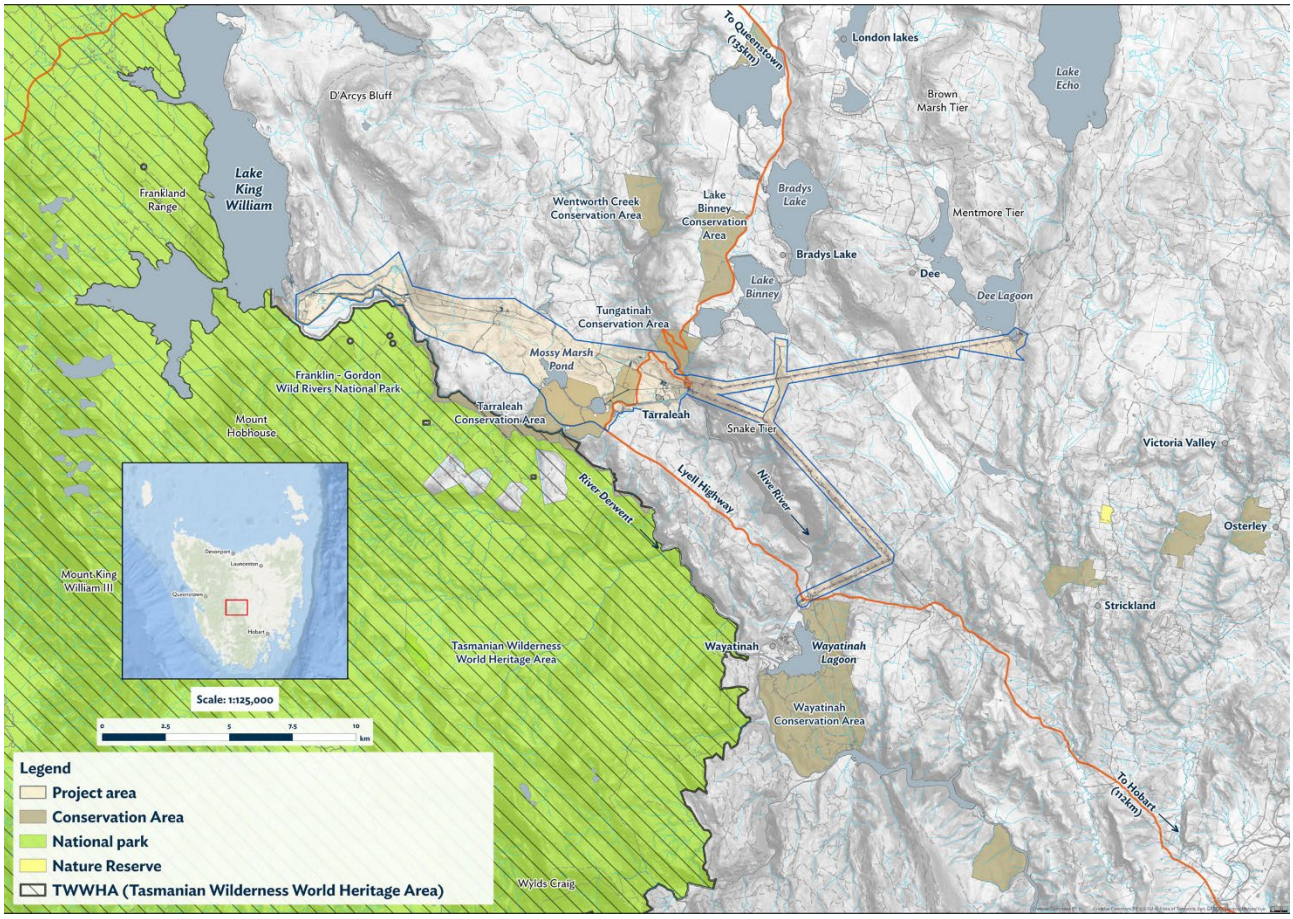



*Figure 2-1: Tarraleah Redevelopment Project Location*

The Project area includes all land on which the Project may occur. It intersects 50 cadastral parcels summarised below and shown in Figure 2-2. From the start of the headrace pipeline at the Lake King William tunnel through to the new power station site, 30 parcels are intersected. The northern transmission line option intersects a further 10 parcels and the southern transmission line option intersects a further 12 parcels (two of which are also intersected by the northern transmission line option).

| PROJECT SECTION | LANDOWNER | PROPERTIES INTERSECTED BY THE PROJECT (CID NUMER) |
|---|---|---|
| Start of the headrace pipeline at Lake King William through to the new power station site (30 parcels) | Hydro Electric Corporation | • CID1156123<br>• CID1446578<br>• CID1446579<br>• CID1156135<br>• CID1156127<br>• CID1156124<br>• CID1297596<br>• CID964259<br>• CID1297594<br>• CID964243<br>• CID964209 |
| | Sustainable Timber Tasmania | • CID1156113<br>• CID1190172<br>• CID1190358<br>• CID964164<br>• CID1296945<br>• CID1190043<br>• CID1154528 |
| | Parks and Wildlife Service | • CID964253<br>• CID1297597 |
| | Central Highlands Council (Fourteen Mile Road) | • CID1109452<br>• CID1443380 |
| | Tarraleah Village Holdings Pty Ltd (subsidiary of Hydro-Electric Corporation and formerly named Woolnorth Bluff Point Holdings Pty Ltd) | • CID1296889<br>• CID1296890<br>• CID1296900<br>• CID1296899 |
| | Crown Land (Lyell Highway) | • CID1296901<br>• CID1297598<br>• CID1297595 |
| | Private Ownership | • CID1247309 |
| Northern transmission line option - from Tungatinah Switchyard to Dee Lagoon (10 parcels) | Hydro Electric Corporation | • CID964169<br>• CID964165 |
| | Sustainable Timber Tasmania | • CID1154526<br>• CID1190043<br>• CID1314177<br>• CID1314178<br>• CID964191<br>• CID987915 |
| | Crown Land (reserved road) | • CID1314185<br>• CID987931 |

| PROJECT SECTION | LANDOWNER | PROPERTIES INTERSECTED BY THE PROJECT (CID NUMER) |
|---|---|---|
| Southern transmission line option - from Tarraleah Switchyard to Liapootah Substation (12 parcels) | Hydro Electric Corporation | • CID1154530<br>• CID1154529<br>• CID1154531 |
| | Sustainable Timber Tasmania | • CID1154526<br>• CID1154528<br>• CID1190043 |
| | Central Highlands Council (Wayatinah Road) | • CID946359 |
| | Crown Land | • CID985910 (onshore water body)<br>• CID984280<br>• CID1020586 (Lyell Highway)<br>• CID1154552 (Lyell Highway) |
| | TasNetworks | • CID1417048 |

Water bodies associated with the Project include the River Derwent from Clark Dam to Lake Catagunya, the Nive River from Tarraleah Power Station to Wayatinah Lagoon, Lake King William, Lake Liapootah, Wayatinah Lagoon, Mossy Marsh Pond, and No. 1 Pond and No. 2 Pond. All of these waterbodies are regulated through Hydro Tasmania's current operation of the Derwent Power Scheme.

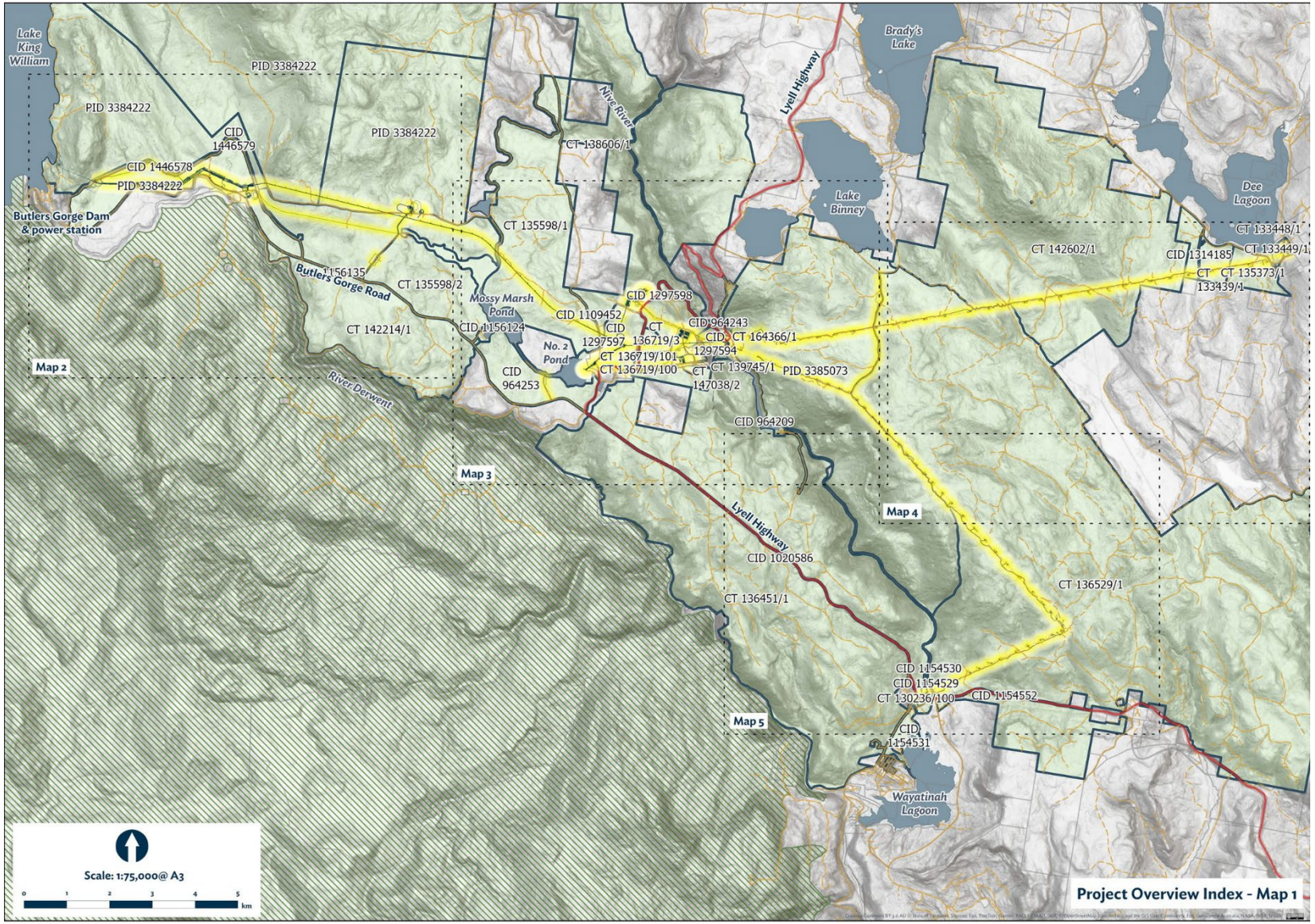



*Figure 2-2 (a): Tarraleah Redevelopment Project area and associated cadastre parcels*

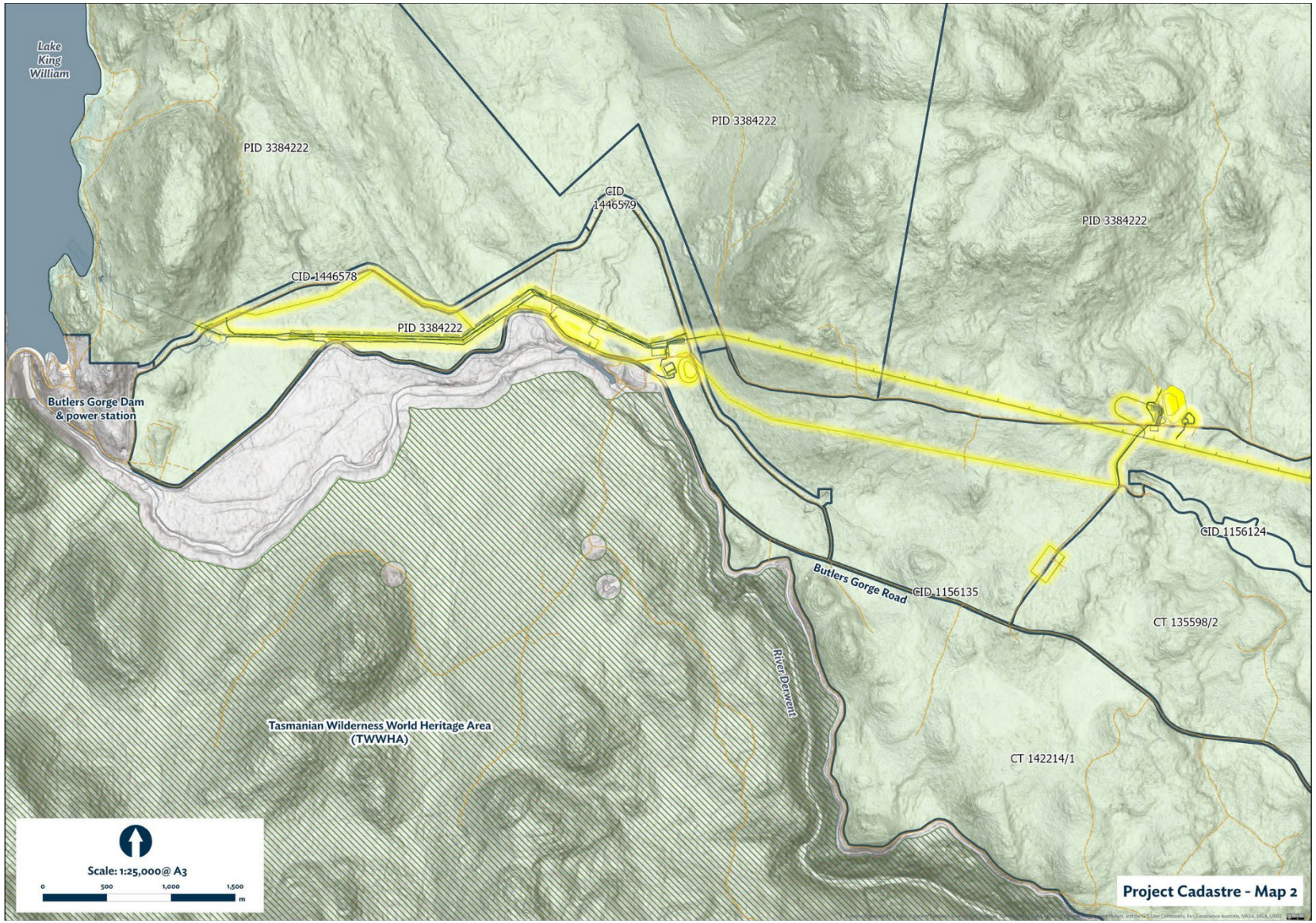



*Figure 2-2 (b): Tarraleah Redevelopment Project area and associated cadastre parcels*

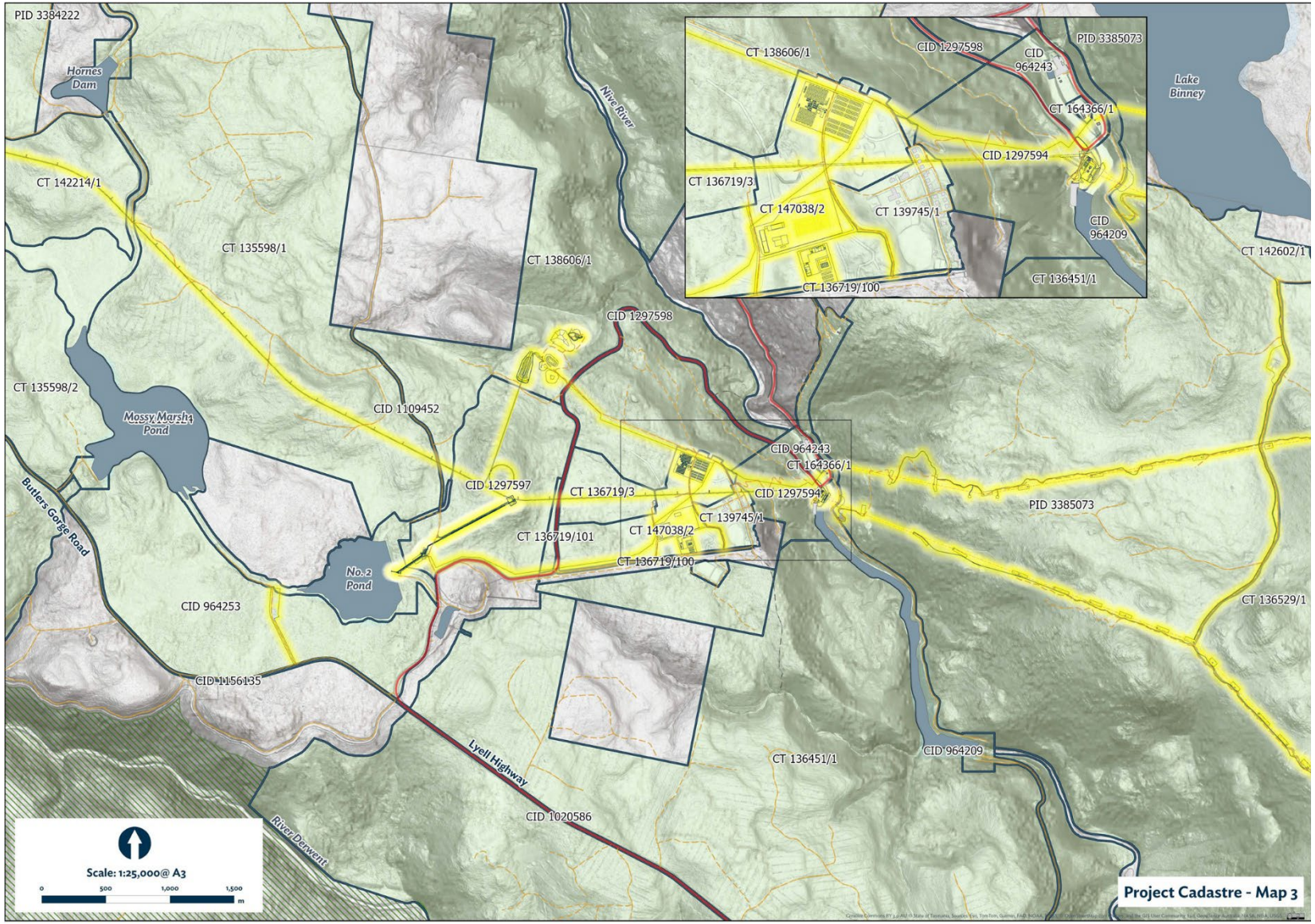



*Figure 2-2 (c): Tarraleah Redevelopment Project area and associated cadastre parcels*

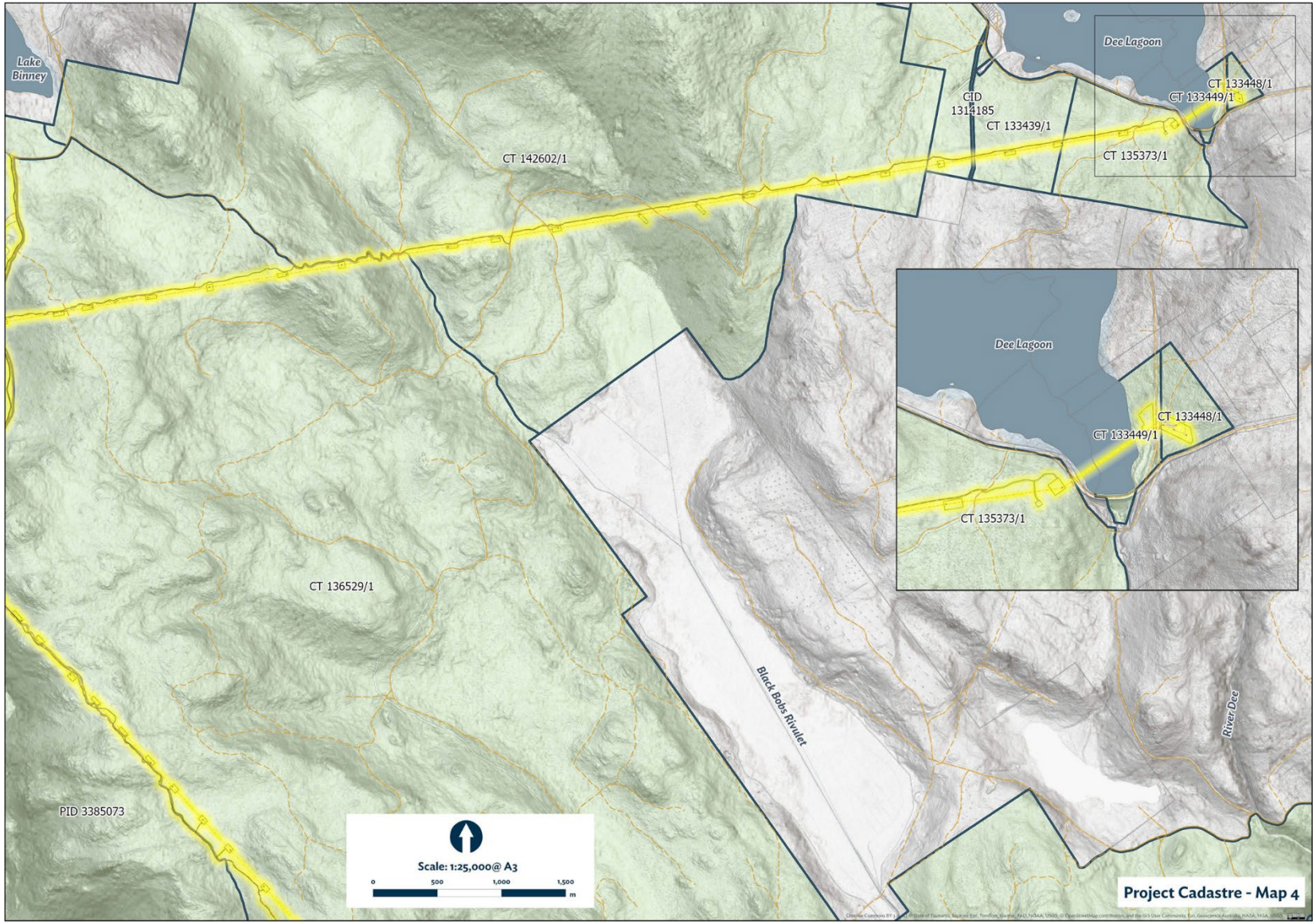



*Figure 2-2 (d): Tarraleah Redevelopment Project area and associated cadastre parcels*

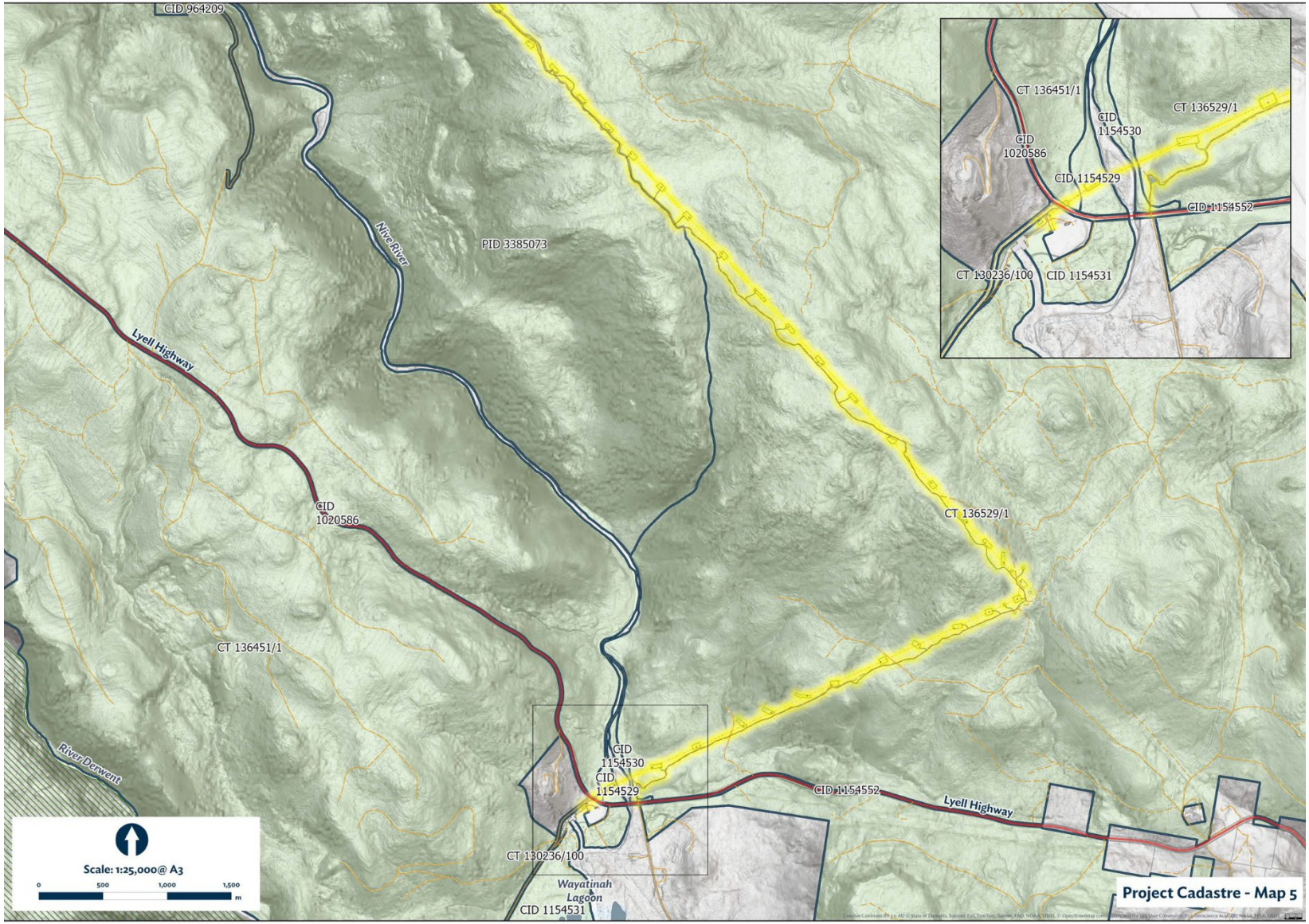



*Figure 2-2 (e): Tarraleah Redevelopment Project area and associated cadastre parcels*

### 2.1.1 Land tenure

Most of the Project area is located on Permanent Timber Production Zone Land (PTPZL), managed by Sustainable Timber Tasmania (STT), as well as land and waterbodies managed by Hydro Tasmania (Figure 2-2). The Project area also includes a small area of the Tarraleah Conservation Area, which is managed by the Tasmanian Parks and Wildlife Service (PWS). Underground components of the Project traverse private freehold land (Tarraleah Golf Course), owned by Hydro Tasmania, as well as the Lyell Highway, managed by Department of State Growth (DSG), reserved roads (Crown) and local council roads.

### 2.1.2 Existing use

Land use in the Project area is dominated by forestry, hydroelectric generation and electricity transmission. Most of the area is actively managed for forestry operations by STT under the Tasmanian *Forest Management Act 2013* (FM Act). Forest operations include hardwood plantations dominated by *Eucalyptus nitens* and native forest dominated by *Eucalyptus delegatensis*.

The Project area has been progressively modified since the 1930s, when the original Tarraleah hydropower scheme was built, through to the 1960s, when it was expanded. Infrastructure from this period includes dams, weirs, tunnels, pipelines, flumes, surface canals, penstocks, the Tarraleah Power Station, and the Tarraleah–New Norfolk 110 kV transmission line. The Tungatinah Power Station and Tungatinah–Waddamana 110 kV transmission line are located immediately north of the Project area. The Project's transmission line will partly share an easement with an existing line.

The Project area also contains Tarraleah Village, originally built to support the hydropower scheme's construction and later repurposed, most recently as tourist accommodation. Tarraleah Village is owned by Hydro Tasmania (Tarraleah Holdings Pty Ltd) and access will be controlled for the duration of the Project's construction phase.

## 2.2 Project description

Hydro Tasmania is seeking a planning permit to develop the Project. The Project aims to redevelop the existing Tarraleah hydropower scheme to replace aging assets and ensure the scheme is capable of meeting future electricity needs.

The Project will utilise the new intake on Lake King William and associated approximately 950 m Lake King William tunnel that is currently under construction as part of Hydro Tasmania's Tarraleah Upgrade Works Project. The Lake King William intake and tunnel do not form part of the Project.

There are two transmission line route options under consideration (refer to Section 2.2.1) both of which are included in this DA. The Project subject to this DA will have a total permanent above ground operational footprint of up to 114.5 ha if the northern transmission line option is constructed and up to 113.5 ha if the southern transmission line option is constructed (Figure 2-3). To facilitate construction of the Project a total temporary above ground disturbance footprint of up to 441.2 ha is required if the southern transmission line option is constructed and up to 410.5 ha is required if the northern transmission line option is constructed (Figure 2-4).

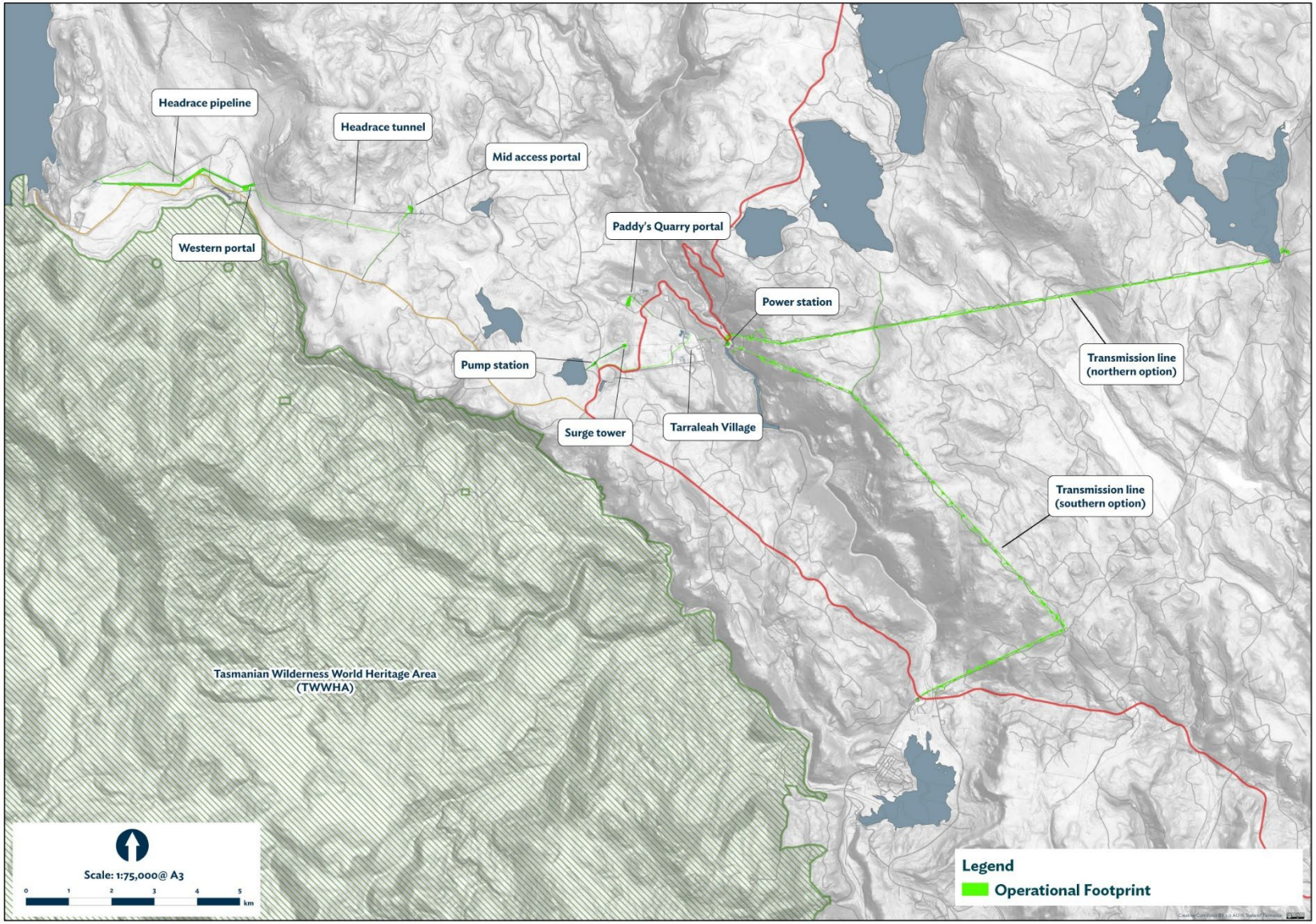



*Figure 2-3: Tarraleah Redevelopment Project operational footprint*

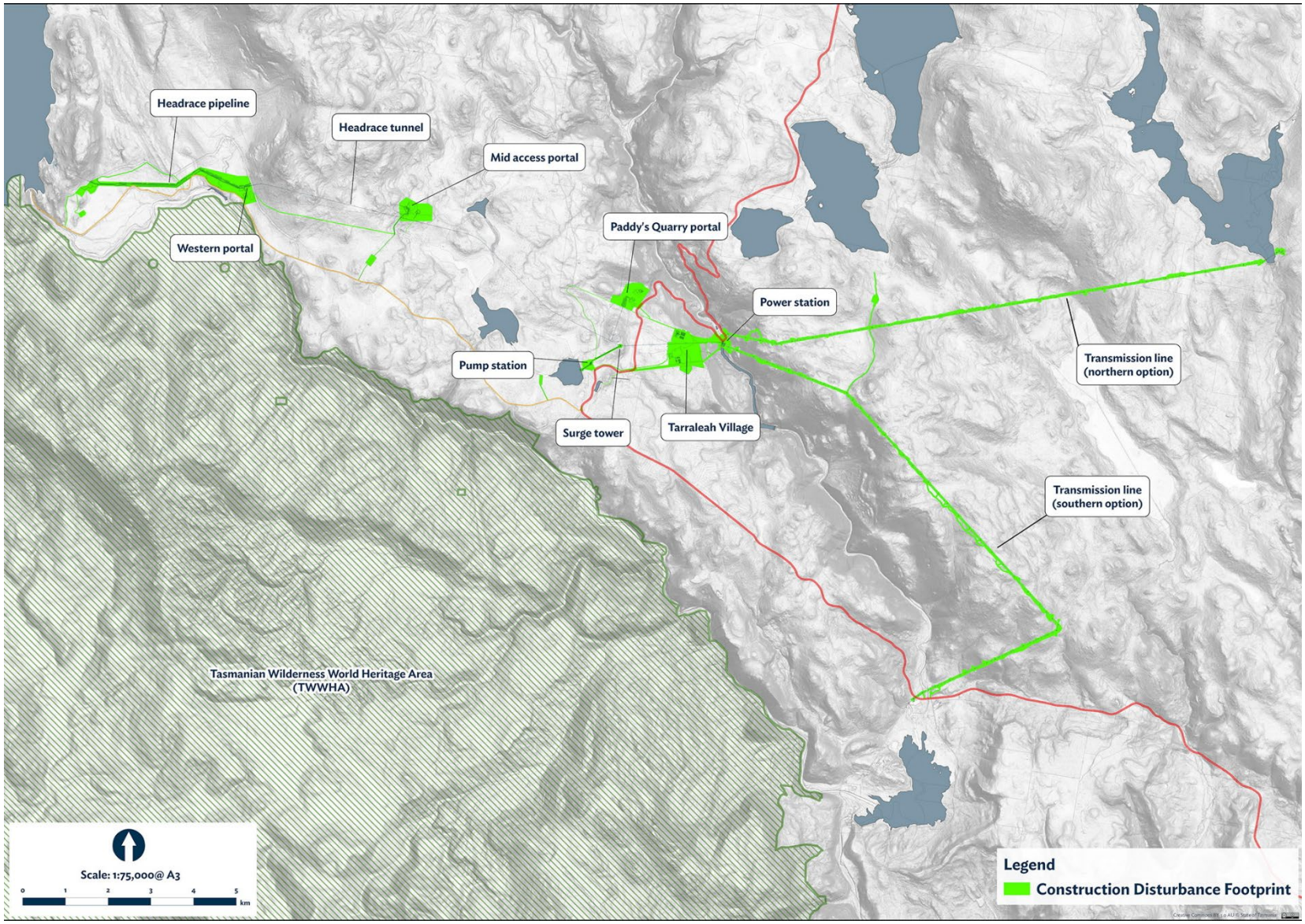



*Figure 2-4: Tarraleah Redevelopment Project disturbance footprint*

The Project's proposed infrastructure is shown in plan view Figure 2-5 and cross-section Figure 2-6, and is summarised below.

| PROJECT ELEMENT | DESCRIPTION |
|---|---|
| Headrace pipeline | Approximately 4.2 km of glass reinforced plastic (GRP) pipeline transferring water from Lake King William—via the Lake King William intake and tunnel—to the headrace tunnel. The intake and tunnel were constructed as part of Hydro Tasmania's Tarraleah Upgrade Works Project and do not form part of the Project. |
| Headrace tunnel | An underground low-pressure tunnel approximately 9.5 km long, transferring water from the headrace pipeline to the power tunnel. |
| Power tunnel | An underground, partly lined high-pressure tunnel approximately 2.3 km long, transferring water from the headrace tunnel to the power station. The tunnel splits into two short underground penstocks, one for each turbine, before entering the power station. |
| Service tunnels | Depending on construction method, service tunnels and portals may be built at the mid-point tunnel access and Paddy's Quarry. These will provide construction access (e.g. for drill-and-blast works) and operational access to the headrace tunnel. |
| Power station | A partially underground powerhouse complex, adjacent to the existing Tarraleah Power Station, with an installed capacity of 180 MW (peak capacity 190 MW) comprising two turbine sets and associated mechanical and electrical equipment. It will include a new tail bay discharging water into the Nive River. |
| Surge facility | An underground surge shaft and above-ground surge tower on an unnamed hill between the Lyell Highway and Fourteen Mile Road. Connected to the headrace tunnel to manage hydraulic transients. The surge shaft will be about 265 m deep, and the surge tower about 70 m above ground level. |
| Pump station and rising main | A pump station and approximately 0.8 km rising main connecting No. 2 Pond to the base of the surge tower, transferring water from Derwent Pumps, Hornes Pond and intermediate water pick-ups to the headrace tunnel. |
| Transformer and switching yard | A transformer yard adjacent to the power station, connected to a switchyard located either next to the transformer yard (southern transmission line option) or adjacent to the existing Tungatinah switchyard (northern transmission line option). |
| Transmission line | A new 220 kV transmission line connecting the switchyard to an existing substation. Two options are under consideration, with only one to be built:<br>• 14 km double circuit line from Tungatinah Switchyard to Dee Lagoon Substation (northern option), or<br>• 15 km double circuit line from Tarraleah Switchyard to Liapootah Substation (southern option). |
| Access roads | Construction and operational access will be provided by:<br>• Minor modifications to Lyell Highway intersections<br>• Modifications to Fourteen Mile Road for surge facility and pump station access<br>• Upgrade of No. 2 Canal access road to western portal<br>• New mid-tunnel access road from Butlers Gorge Road<br>• New surge tower and pump station access roads from Fourteen Mile Road<br>• New headrace pipeline service access roads on either side of the pipeline<br>• New transmission line access tracks (to supplement the existing access track network in the area). |

| PROJECT ELEMENT | DESCRIPTION |
|---|---|
| Spoil emplacement areas | Excavation of the power station, portals, tunnels, and shaft will produce about 760,000 $m^3$ of spoil. Spoil unsuitable for reuse (e.g. for portals or road surfacing) will be stored in three permanent emplacement areas:<br>• Western portal<br>• Mid-tunnel access portal<br>• Paddy's Quarry<br>Due to site constraints, no spoil emplacement will be at the power station; spoil from the power station and power tunnel will be trucked via the Lyell Highway to Paddy's Quarry. All emplacement areas will be landformed and rehabilitated after construction. |
| Power supply | New 22 kV distribution lines will connect the existing 22 kV network to the western, mid-access, and Paddy's Quarry portals, pump station, surge tower, and power station, supplying electricity during construction and operation. |

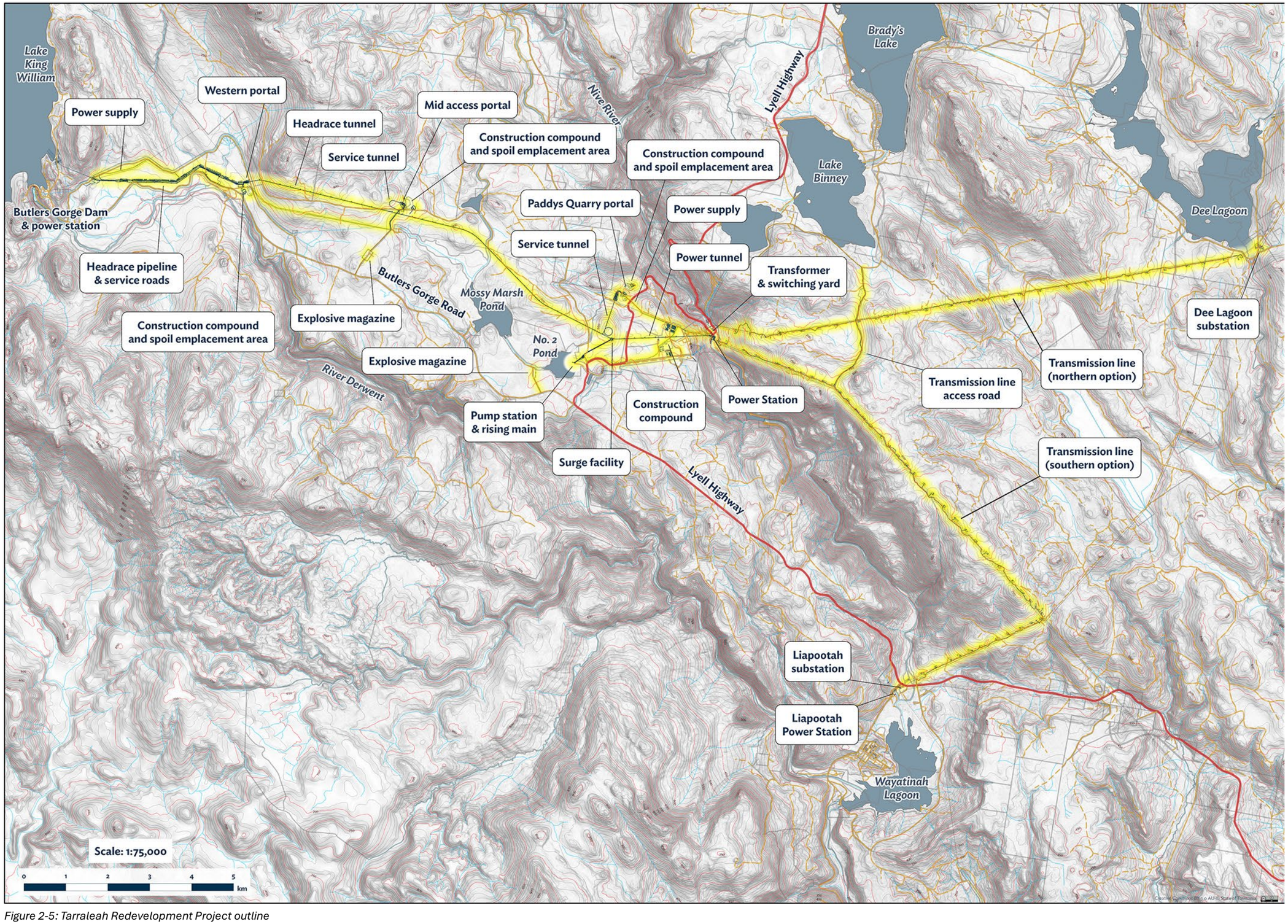
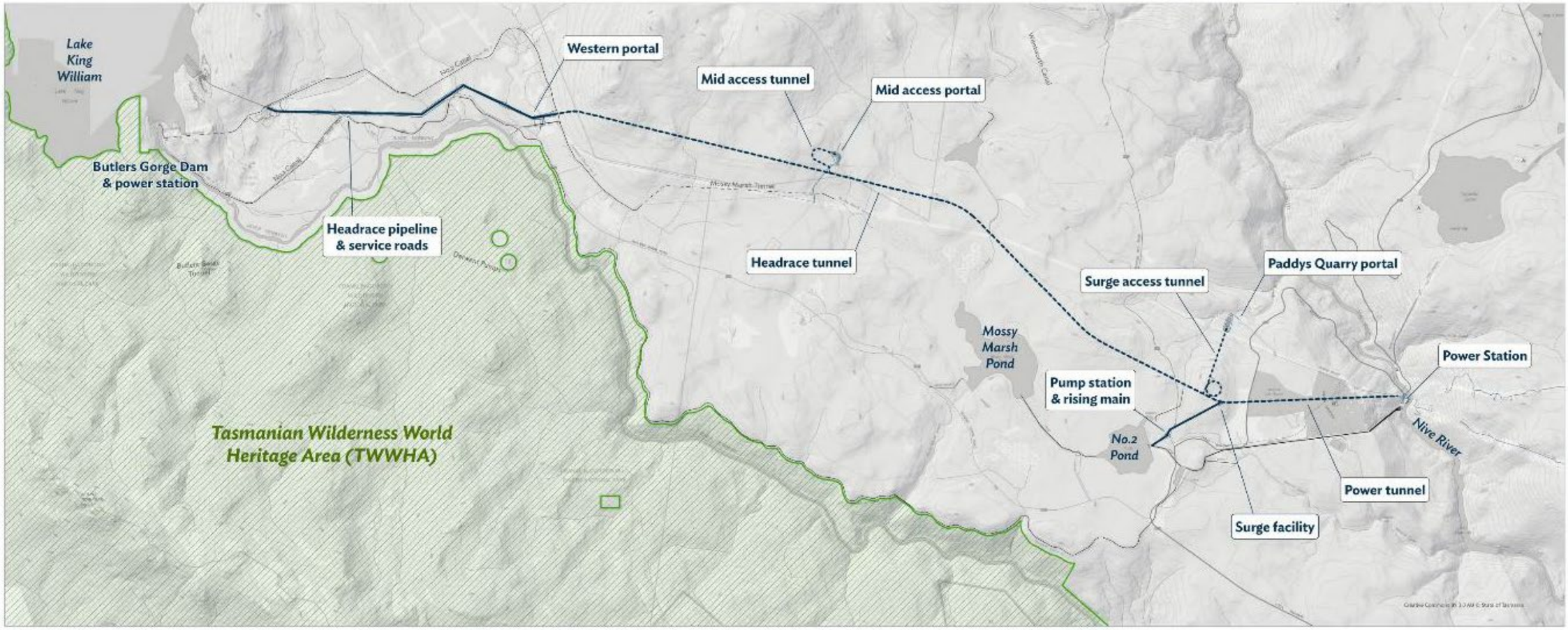



*Figure 2-5: Tarraleah Redevelopment Project outline*



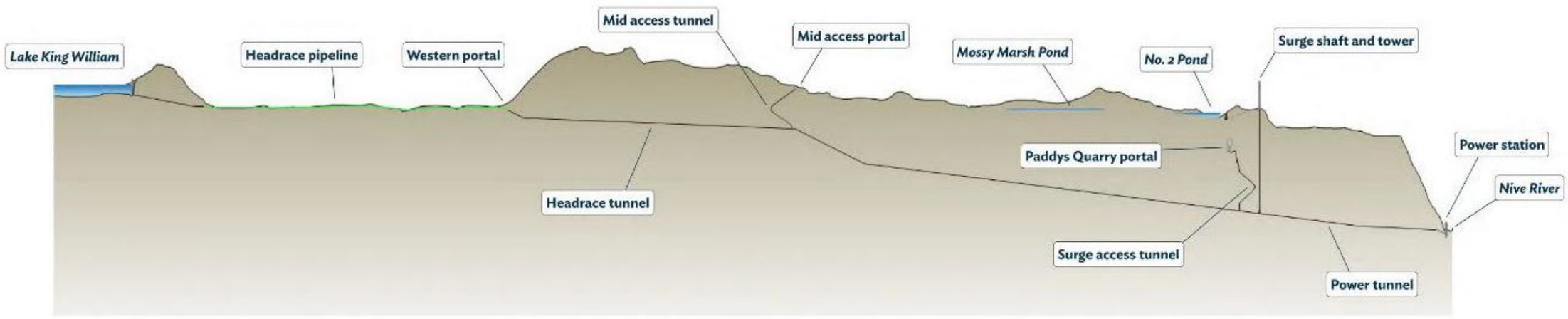




*Figure 2-6: Tarraleah Redevelopment Project cross section*

## 2.2.1 Project components

### Tunnel portals

To commence tunnelling, access points (portals) will be excavated. The Project requires up to four portals (Figure 2-7):

- **Western (headrace tunnel access) portal**: Located below the No. 2 Canal at the Derwent Pumps discharge point. If a tunnel boring machine (TBM) is used, this portal is likely to serve as the TBM launch site.
- **Mid access portal**: Located off Butlers Gorge Road, providing for tunnelling from multiple concurrent headings and future maintenance access to the headrace and power tunnels.
- **Paddy's Quarry portal:** May be required depending on the tunnelling method adopted by the EPC Contractor. If used, this portal will provide access to the headrace and power tunnels and the surge connection chamber.
- **Power station portal**: Located at the entrance to the existing Tarraleah Power Station, with a bridge over the portal to maintain access to the power station. Spoil from this portal will be trucked via the Lyell Highway to the Paddy's Quarry spoil emplacement area, as no emplacement area will be located at the power station.

The headrace pipeline will connect to the downstream Lake King William tunnel portal, currently under construction as part of Hydro Tasmania's Tarraleah Upgrade Works Project.

Each portal will generally include an access road, spoil emplacement areas, and a galvanised steel gate to prevent unauthorised access. During construction, temporary facilities such as laydown areas, water treatment facilities, maintenance workshops, and site offices/amenities may also be located at the portals.

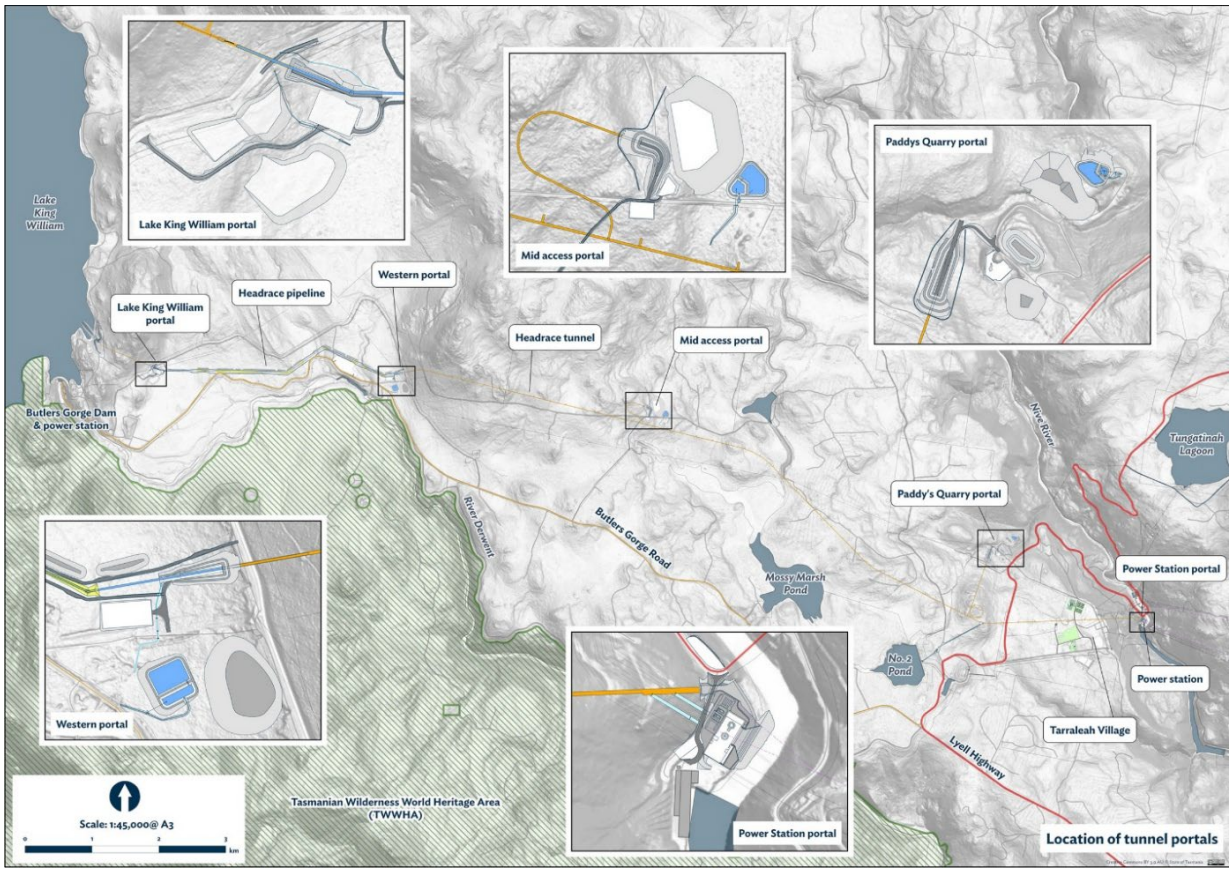



*Figure 2-7: Location of tunnel portals*

## Headrace pipeline

The headrace pipeline will continue the pressurised water conveyance from the Lake King William intake, constructed under the Tarraleah Upgrade Works Project. It will connect to the Lake King William tunnel approximately 100 m upstream of the downstream tunnel portal and terminate about 155 m into the headrace tunnel (Figure 2-8). The transition from pipeline to tunnel occurs at a local high point. The pipeline will be approximately 4.2 km long, 4 m in diameter, and designed for a discharge of 61 $m^3$/s.

A 20-m wide asset protection zone will be implemented either side of the headrace pipeline to mitigate bushfire risk during both construction and operation.

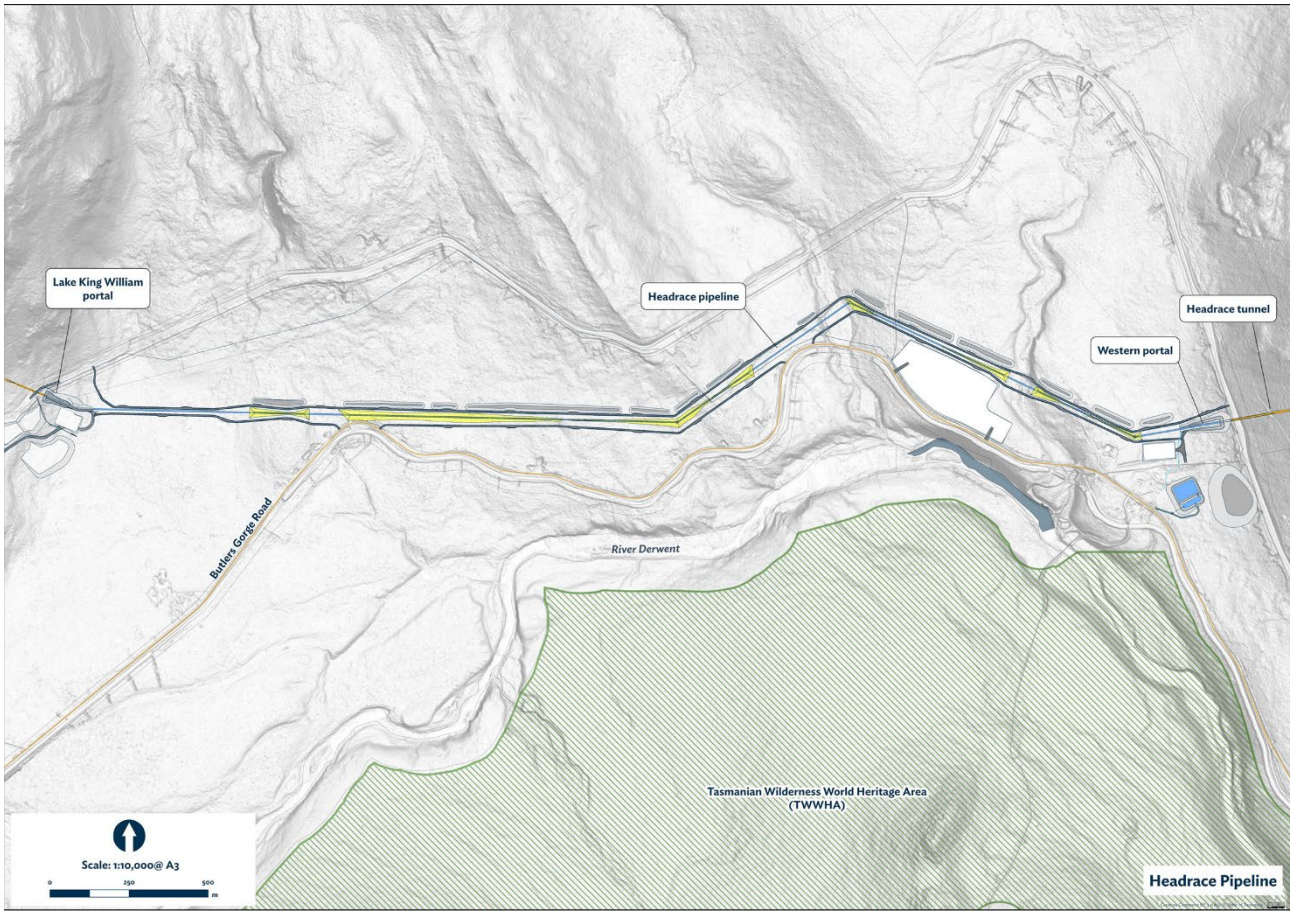



*Figure 2-8: Headrace pipeline*

### Water conveyance and access tunnels

The Project will include approximately 12 km of pressurised water conveyance tunnels linking the headrace pipeline to the power station. These consist of:

- **Headrace tunnel**: 9.55 km long, with a horseshoe profile measuring 6 m wide by 6.25 m high. This nominally unlined, low-pressure tunnel begins at the downstream end of the headrace pipeline and carries water to the power tunnel at the surge shaft offtake. Between the headrace tunnel portal and the mid-access tunnel portal, the tunnel depth will reach approximately 190 m below ground level, increasing to about 270 m as it approaches the surge facility and the power tunnel interchange.
- **High-pressure power tunnel**: 2.29 km long and 4 m in diameter partly concrete- and steel-lined, with the steel section providing impermeability to control water leakage. This tunnel transfers water from the headrace tunnel to the power station penstocks, with a bifurcation (distributor) dividing the flow into the penstocks. It will reach a maximum depth of about 273 m near the surge facility, then rise to about 17 m below ground at the power station entrance. The headrace and power tunnels will form a continuous tunnel.
- **Steel penstocks**: Two penstocks, each 0.2 km long and 2.8 m in diameter, will be encased within separate adit tunnels, connecting the power tunnel distributor to the main inlet valves and turbines.

Depending on the construction method, service tunnels (0.73 km long, arched profile 5.5 m wide by 6.25 m high) will be built from the mid-access and Paddy's Quarry portals to provide additional access to the headrace and power tunnels during construction. The Paddy's Quarry service tunnel will also access to the surge connection chamber. The mid-access service tunnel will connect to a surge pond at its portal, functioning as a secondary surge facility during operation.

### Surge facility and pump station

A surge facility will be constructed on the hilltop directly west of Tarraleah Village. The location has been selected to minimise the height of the surge tower, while maintaining close enough proximity to the power station for efficient operation. Positioned directly above and between the headrace and power tunnels, the facility will include:

- **Surge shaft**: Approximately 265 m deep and 5 m in diameter, directly connected to the headrace tunnel via a connection chamber at its base. The shaft will be lined with shotcrete at depth if required, and steel-lined for approximately the top 50 m.
- **Surge tower**: Constructed from welded 3 m high steel sections, 14 m in diameter, to a total height of approximately 70 m. The tower will be finished in muted tones, achieving a light reflectance value of 40% or less (in line with zoning provisions of the planning scheme) and will also receive water from No. 2 Pond via a rising main from the pump station.
- **Connecting adit (connection chamber)**: Links to the headrace tunnel to enable raised-bore development and construction of an orifice connection to help regulate surge flows.

The surge facility will manage sudden fluctuations in water pressure by collecting water when pressure is high and releasing water when pressure is low, thereby improving the operational stability of the water conveyance tunnels.

### Pump station and rising main

The Project will retain the No. 2 Canal downstream of Derwent Pumps, with water in this conveyance captured by the Project via a pump and rising main connecting No.2 Pond to the base of the surge tower.

The pump station will be located off Fourteen Mile Road near No. 2 Pond. During operation, it will supplement water supplied from Lake King William by drawing from the catchments feeding No. 2 Pond, thereby reducing the volume required from the lake. When the scheme is not operating, the pump station will enable water from No. 2 Pond to be pumped via the surge shaft connection chamber to the headrace tunnel and pipeline, returning it to Lake King William.

The pump station facility will include:

- **Suction main inlet**: Integrated into the No. 2 Pond outlet and connected to the pump station.
- **Pump station building**: Housing three parallel pump sets with variable speed drives, capable of pumping up to 6 $m^3$/s via the rising main to the surge facility. The building will feature an above-ground superstructure with a below-ground concrete substructure, steel framing to support an internal crane, steel sheet and/or precast concrete walls, and a steel roof. Vegetation screening will be maintained between the station and Fourteen Mile Road.
- **Rising main**: A 0.8 km pipeline from the pump station to an inlet in the surge tower, running adjacent to the surge tower access road. Constructed from nominally 12 m GRP sections, the pipeline will be mostly buried near the pump station, with a section crossing Fourteen Mile Road. At its end, a check valve will prevent dewatering of the surge tower in case of a system failure, with the final lengths to the tower inlet made from steel.
- **Ancillary infrastructure**: Including a surge tank, switchyard, hardstand, and other minor structures.

### Power station

The new power station will be a multi-storey facility located predominantly below ground level on the site of the existing Tarraleah Power Station switchyard, on the western bank of the Nive River. Access will be via the Lyell Highway, shared with the existing power station, which will remain operational until the new facility is fully commissioned.

The building will accommodate:

- **Generating equipment**: Two 90 MW Francis turbines, associated balance-of-plant systems, and control systems.
- **Support facilities**: Offices, staff amenities, and an assembly area to enable future machine refurbishment.

To protect against flooding, the power station will be tanked (with a waterproof membrane in walls and floors) to approximately RL 349 AHD. Above this level, the structure will comprise steel framing with cladding. The transformer yard and switchyard will be constructed at final surface level.

Water discharge will occur via a tail bay excavated into the Nive River channel. The tail bay will:

- Serve both turbine units
- Include a weir at the discharge point to maintain a minimum tailwater level at the turbines
- Ensure permanent submersion of the machines for efficient operation.

No dredging or reclamation will be required for the implementation of the tail bay.

### Transformer yard and switchyard

The transformer yard will be located outside the power station building, housing the generator power transformers in separate concrete bunded areas. The bunding will comply with AS 2067 (design and erection of high-voltage installations) and will be designed to prevent spills, ensure fire safety, and protect the surrounding environment.

Key features include:

- **Transformer design**: Outdoor, air-cooled, ester-fluid type with enhanced fire protection, designed to meet Fire Management Global standards.
- **Safety measures**: Each transformer will be in its own fenced and bunded area to prevent unauthorised access and maintain safe approach distances.

Switchyard configuration will depend on the selected transmission line alignment:

- **Southern option**: An outdoor, air-insulated 220 kV switchyard located near the generator main power transformers.
- **Northern option**: An indoor, gas-insulated 220 kV switchyard located adjacent to the existing Tungatinah switchyard, replacing the current toilet block between the Tungatinah 110 kV switchyard and Nive River bridge (replacement toilets/rest area to be provided at Tarraleah Village).

In both options, the switchyard will:

- Contain a compact two-bay arrangement with circuit breakers, disconnectors, earth switches, and current/voltage transformers
- Feature gantries that connect the power station to the two 220 kV transmission lines
- Include fencing to prevent unauthorised access
- House protection and control equipment in an electrical protection room within the power station.

As the preferred switchyard option has not been confirmed, the disturbance footprint includes the area required for both configurations.

### Transmission infrastructure

The new power station will connect to the existing 220 kV network via a double-circuit transmission line from the power station switchyard to either the existing TasNetworks Liapootah–Palmerston transmission line or Liapootah substation.

Two route options are under consideration:

- **Tungatinah – Dee Lagoon Tee** 220 kV (northern option): A 14 km double-circuit transmission line from the proposed Tungatinah 220 kV substation, connecting via a direct tee to the existing Liapootah–Palmerston line at Dee Lagoon. Key features include:
  - ***Alignment*:** Runs alongside the existing 110 kV transmission lines
  - ***Easement*:** Nominal extension of 30 m required
  - ***Structure*:** Steel lattice towers to 52 m high.
- **Tarraleah – Liapootah** 220 kV (southern option): A 15 km double-circuit transmission line from the proposed Tarraleah 220 kV switchyard to the existing Liapootah 220 kV substation. Key features include:
  - ***Alignment*:** Parallel to the existing 110 kV transmission easement.
  - ***Easement*:** Nominal extension of 30 m required.
  - ***Structure*:** Concrete poles up to 44 m high.

In addition, a short 0.3 km double-circuit connection will link the switchyard to the Tungatinah 220 kV substation. Key features include:

- **Structure:** Steel poles within the existing easement.
- **Works:** Rationalisation of the existing 110 kV lines to allow space for the new 220 kV lines.

As the preferred alignment has not yet been confirmed, the disturbance footprint allows for both the northern and southern options.

### 2.2.2 Construction activities

Key construction activities associated with establishing the Project components will include:

- **Site establishment** including detailed site surveys and demarcation, traffic controls, erosion and sediment controls, clearing and grubbing (i.e. vegetation clearing) and implementing temporary supporting works areas – see below.
- **Portal excavations** will be undertaken using a combination of conventional earth moving techniques and drill and blast.
- **Headrace pipeline installation,** where buried or mounded sections, will follow conventional pipe laying methodologies whilst above ground sections will be constructed using either piling or surface excavation to facilitate placement of footings.
- **Tunnel excavation and lining** will commence at the tunnel portal locations once the tunnel face is exposed. The preferred tunnel excavation method is by TBM supported by a combination of mechanised excavation and drill and blast techniques. A TBM would complete approximately 75% of the tunnelling works. If a TBM is not used, 100% of tunnel excavation will be by drill and blast techniques. Once excavation is complete tunnels will either remain unlined or be lined with concrete, steel, or both—depending on factors such as tunnel function, topography, depth, and ground quality.
- **Surge shaft** construction will be undertaken using a raise borer. Once complete, the surge tower construction will commence. Prefabricated surge tower sections will be welded together and supported by a reinforced concrete foundation.
- The **installation of the pump station and rising main** will require partial excavation of the pump station followed by construction of a base slab and retaining walls. Above-ground elements will comprise a steel-framed, steel-clad building assembled in situ. Trenching and pipe laying will be undertaken for the suction and rising mains.
- **Power station excavation** will be via a combination of conventional excavation, rock hammering and drill and blast, subject to the quality and strength of the rock. In order to reach the underside of the power station on a constrained site, a multi-stage construction sequence has been developed.
- **Power station construction and installation** will take place within the excavated area and emerge 23 m from the surface level. The switchyard and transformer yard implementation will be completed at the same time the power station equipment is being installed.
- **Transmission line construction** will be constructed with either steel lattice towers or steel poles, with a maximum structure height of 52 m. The northern option may use either structure type, while the southern option will use poles. Construction of both structure types will include ground clearance, assembly of prefabricated pole or tower sections and stringing of transmission lines.

Spoil emplacement areas will be used to permanently store material excavated during construction, with locations chosen to minimise haulage and support site efficiency. Three main permanent spoil emplacement areas are proposed; western portal, mid-access portal and at Paddy's Quarry.

Approximately 760,000 $m^3$ of material is expected to be excavated across all works. Of this:

- Around 190,000 $m^3$ of rock will be crushed and reused on site for portal and laydown area establishment, road pavement, and as aggregate for concrete and shotcrete
- Topsoil will be stockpiled for later use in site rehabilitation
- Remaining rock and other-than-rock (OTR) material will be stored in the permanent spoil emplacement areas.

To support construction, the following key temporary infrastructure is proposed:

- Construction compounds, which will include workshops, laydown areas and a minimum of two batch plants for concrete supply (Figure 2-5), will be required to support construction activities. These will be established on land owned by Hydro Tasmania at the Tarraleah Village or at other locations within the disturbance footprint, as required to support the works. At the end of construction, the workshops, batch plants and laydown area will be rehabilitated. The workshops will include bunded areas where work on construction plant can be carried out. Workshops will be required for mobile plant maintenance, some on site fabrication and construction of specialised formwork. A storehouse will also be required.
- An area within Tarraleah Village has been set aside for a Project office. This may involve installing a prefabricated building, to be removed and the site rehabilitated at the conclusion of the Project. Where possible, the interiors of existing village buildings will be retrofitted to optimise space and minimise the need for additional prefabricated structures. Any modifications to Tarraleah Village will be minor and will maintain the heritage value of the village in accordance with Hydro Tasmania's Historic Heritage Conservation Management Plan. Administration buildings will also be established at the various construction sites. These will generally be prefabricated buildings, demobilised upon completion of works.
- Explosives for excavation work are required to be stored in a dedicated facility. Three **e**xplosive magazines are proposed to be located within the disturbance footprint.
- Tunnel excavation and/or steel lining of the power tunnel may be undertaken from the power station site. To support these activities and reduce congestion on the constrained site, a temporary bridge will be constructed over the Nive River.

Change of use permits may be required for some of the buildings within the Tarraleah Village to support the construction compound. Should this be required, a separate DA will be submitted to the Central Highlands Council, once the scope of the compound is more clearly defined by the EPC contractor. As such, within the village zone, this DA will only cover works proposed for the construction compound within CT 147038/2 – the block adjacent to the Tarraleah Village.

Upon completion of works, all temporary construction sites will be rehabilitated.

### 2.2.3 Access

Access to the Project during construction will be via the Lyell Highway with key access points from the Lyell Highway at Butlers Gorge Road, Fourteen Mile Road, Oldina Drive, Paddy's Quarry, Tarraleah Power Station. Butlers Gorge Road will be closed for public access during construction. Excepting temporary closures as required, Oldina Drive between the Lyell Highway and Tarraleah Lookout will remain open for public access during construction.

New and upgraded access roads will be constructed to enable construction and long-term operation of the Project (Figure 2-9). These will include:

- **New roads:**
  - Service roads on either side of the headrace pipeline to support future operational requirements
  - An access road from Fourteen Mile Road to the surge tower, sharing the same alignment as the rising main from the pump station. The entry point will be secured by a road closure gate and/or security fence
  - An access road from Fourteen Mile Road to the pump station
  - An access road from Butlers Gorge Road to the mid-tunnel access portal.
- **Upgraded roads:**
  - Minor modifications to Fourteen Mile Road to allow large vehicle access to the pump station and surge tower access roads
  - Upgrade of the No. 2 Canal access road to provide permanent access from Butlers Gorge Road to the western portal and headrace pipeline service roads
  - Upgrades and extensions to existing access tracks along the transmission line alignment (within the existing easement) to reach new structure locations. Several new tracks will be built to access poles in steep terrain near Tarraleah.

Permanent roads will be designed and built in accordance with the *Local Government Association Tasmania: Tasmanian Municipal Standards* (December, 2020) for unsealed rural roads, with a nominal unsealed pavement width of 5.5 m.

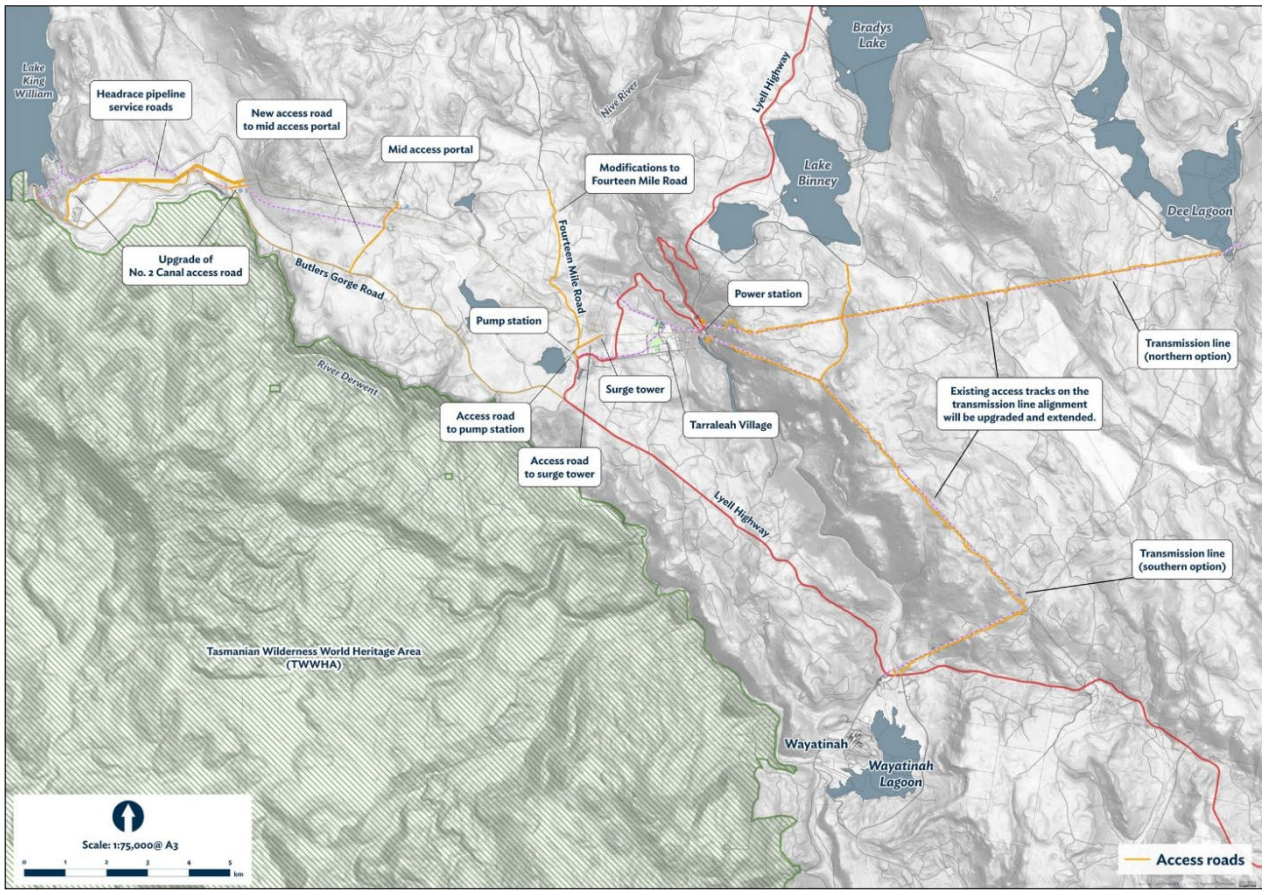



*Figure 2-9: Project access roads*

Over-sized over mass (OSOM) vehicles will be required to transport the transformers and GRP sections to the Project area and will require a permit from the Department of State Growth. An OSOM route to the Project has been identified from the Port of Bell Bay to New Norfolk (potentially via Frankford Road and the Bass Highway due to height restrictions) and then north-west along the Lyell Highway. No upgrades or modifications to this route are anticipated. Pilot and escort vehicles will be required in line with the requirements of Heavy Vehicle National Laws.

### 2.2.4 Decommissioning of existing elements

The Project will render the majority of existing Tarraleah hydropower scheme assets redundant. The decommissioning of these redundant assets does not form part of the Project and will be addressed through a future planning process.

Prior to decommissioning, Hydro Tasmania will engage with Heritage Tasmania, the community, and other key stakeholders to explore options for treatment, rehabilitation, and preservation of the existing assets, taking into account the following strategic objectives:

- Discharging Hydro Tasmania's duty of care regarding risks to the public and the environment
- Fulfilling Hydro Tasmania's obligations to protect and maintain historic and Aboriginal cultural heritage values within the Tasmanian community.

A Decommissioning and Rehabilitation Plan for the redundant assets will be finalised 12 months prior to decommissioning. Hydro Tasmania's existing Historic Heritage Conservation Management Plan will be updated following finalisation of the Decommissioning and Rehabilitation Plan.

### 2.2.5 Hours

#### Construction

Proposed standard construction hours are:

- **Above-ground works**: 0700 to 1800, Monday to Friday; 0800 to 1300, Saturday
- **Underground works** and essential support operations (e.g. ventilation fans, water treatment facilities): 24 hours a day, 7 days a week.
- **TBM tunnelling**: 10 hours a day, six days a week.

Non-standard construction hours may be required in certain circumstances, including:

- **Workforce availability:** If insufficient locally based workers are available, above-ground works and TBM activities may extend into Saturday afternoons, Sundays and public holidays to align with FIFO interstate workforce rosters.
- **Transport requirements:** Delivery and unloading of large loads may occur outside standard hours where required by transport restrictions.

No noise-sensitive receptors outside of Hydro Tasmania ownership are expected to be affected by construction works.

#### Operation

Once operational, the scheme will run continuously, 24 hours a day, 7 days a week. Site attendance will be limited to routine maintenance. Permanent flood lighting will be installed for security at the power station and at the pump station near No.2 Pond.

### 2.2.6 Final design and construction

Hydro Tasmania plans to engage EPC Contractor for the Project. The EPC Contractor will be responsible for developing a tender design, construction method, and cost estimate prior to a Final Investment Decision (FID). As approval documentation (including this DA) has been completed prior to engagement of an EPC Contractor, construction methods are based on a reference design developed by Hydro Tasmania. This reference design retains flexibility to allow the EPC contractor to propose solutions that deliver economically, environmentally, and socially sustainable outcomes.

The purpose of the reference design is to provide sufficient detail to support environmental and planning assessments, stakeholder engagement, and future detailed design. It has been developed to avoid and minimise environmental impacts as far as reasonably practicable. This was achieved through a feedback process, where findings from specialist technical assessments (engineering and environmental) informed refinements to the design. Multi-criteria assessments of design options were used to identify the preferred Project and determine key parameters such as the size and location of major infrastructure. Where multiple design or construction method options exist, the Project EIS presents and assesses the reasonable worst-case environmental impact.

The reference design will be developed into a tender design by the EPC Contractor during an Early Contractor Involvement (ECI) phase in collaboration with Hydro Tasmania. During this process, and possibly into the construction phase, further assessment and detailed design may identify different design solutions and different construction method approaches. Where this occurs the reference design and construction method will be refined.

## 2.3 Works not included as part of the Project

Works ancillary to the Project (but not included in this DA) include Hydro Tasmania's Tarraleah Upgrade Works Project, the relocation of the Tarraleah switchyard and construction of a temporary workforce accommodation facility (WAF) at Tarraleah Village.

### 2.3.1 Tarraleah Upgrade Works Project

Hydro Tasmania is currently completing a program of upgrade works at Lake King William, which has been subject to a separate approvals process. The upgrade works consist of a new intake arrangement on Lake King William (approach channel, intake structure with gates and associated hydro-mechanical and electrical equipment), an approximately 950 m tunnel, and a tunnel portal. The downstream Lake King William tunnel portal will form the connection point for the western end of the Project's headrace pipeline.

### 2.3.2 Relocation of the Tarraleah Switchyard

Hydro Tasmania is proposing to relocate the existing Tarraleah 110kV transmission lines and transformer connections from their current location in the switchyard immediately adjacent to the Tarraleah Power Station to the nearby existing Tungatinah Power Station. The relocation of the switchyard is necessary to locate the Project's new power station. The relocation of the switchyard will occur prior to the commencement of the Project's construction. Work will be completed under the *Tasmanian Electricity Supply Industry Act 1995* (ESI Act), or subject to separate approval under the LUPA Act if deemed necessary. There are no anticipated environmental impacts associated with the switchyard relocation.

### 2.3.3 Temporary workforce accommodation facility

A temporary workforce accommodation facility (WAF) is proposed adjacent to Tarraleah Village (on the same land title but separate from the existing village). Hydro Tasmania purchased Tarraleah Village in 2023 to accommodate the WAF. Construction is expected to occur prior to, or in conjunction with, Project construction and will be subject to a separate approvals process.

It is anticipated that most Project staff will be housed in the WAF, supplemented by accommodation in Tarraleah Village and potentially in regional facilities. A Social Impact Management Plan will be developed to guide workforce accommodation outcomes, including minimising flow-on impacts to host communities (e.g. rental affordability and accommodation shortages).

# 3. Key matters

## 3.1 Flora and fauna

Ecological surveys of the Project's disturbance footprint were conducted between late 2018 and early 2026. The results of the surveys are described in detail in Section 3 of the Tarraleah Redevelopment Terrestrial Ecology Assessment (Appendix A). A summary of the findings is provided below.

### Vegetation

The Project area has been significantly influenced by past disturbance particularly from hydropower development, timber harvesting and plantation development for production forestry. The maximum total area of native vegetation that would be cleared is 224.3 ha (if the northern transmission line option is constructed) or 209.9 ha (if the southern transmission line option is constructed).

Twenty-one vegetation communities were identified within the survey area, including the survey areas for the two options for the transmission line alignment. Fourteen of these are native vegetation communities, and the remaining seven are modified (non-native) vegetation communities (refer Figure 3-1, Figure 3-2 and Figure 3-3). The 15 native vegetation communities are:

- Acacia dealbata forest (NAD)
- Broad-leaf scrub (SBR)
- *Eucalyptus amygdalina* forest and woodland on dolerite (DAD)
- *Eucalyptus dalrympleana*–Eucalyptus pauciflora forest and woodland (DDP)
- *Eucalyptus tasmaniensis* dry forest and woodland (DDE)
- *Eucalyptus tasmaniensis* forest over rainforest (WDR)
- *Eucalyptus tasmaniensis* forest with broad-leaf shrubs (WDB)
- *Eucalyptus tasmaniensis* forest over Leptospermum (WDL)
- *Eucalyptus obliqua* forest with broad-leaf shrubs (WOB)
- *Eucalyptus rodwayi* forest and woodland (DRO)
- *Leptospermum* forest (NLE)
- Pure buttongrass moorland (MBP)
- Buttongrass moorland with emergent shrubs (MBS)
- Subalpine *Diplarrena latifolia* rushland (MDS).

The 0.5-ha *Diplarrena latifolia* rushland that occurs on the headrace pipeline alignment is listed as a threatened vegetation community under Schedule 3A of the Tasmanian *Nature Conservation Act 2002* (NC Act). The loss of 0.5 ha of the threatened subalpine *Diplarrena latifolia* rushland represents 0.083 of one percent of the 600-ha statewide extent of this vegetation community.

1 The Tasmanian subspecies of *Eucalyptus delegatensis* (formerly known as *Eucalyptus delegatensis* subsp. *tasmaniensis*) was taxonomically elevated to species level (*Eucalyptus tasmaniensis*) in the Census of Vascular Plants of Tasmania in 2023. In TASVEG5.0, the names of *Eucalyptus delegatensis* communities have been changed to reflect the renaming of the species; however, the three-letter VegCodes for each community have not changed.

The seven modified (non-native) vegetation communities within the disturbance footprint are:

- Regenerating cleared land (FRG)
- Hardwood plantations for silviculture (FPH)
- Permanent easement (FPE)
- Extra-urban miscellaneous (FUM)
- Urban areas (FUR)
- Agricultural land (FAL)
- A weed infestation (FWU) – a dense stand of the declared weed English broom (*Cytisus scoparius*).

The Commonwealth EPBC Act Protected Matters Search Tool (PMST) identified that three threatened ecological communities (TEC's) listed as Matters of National Environmental Significance (MNES) under the EPBC Act that may occur within the Project area:

- Alpine *Sphagnum* Bogs and Associated Fens (Endangered)
- Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*) (Critically Endangered)
- Tasmanian white gum (*Eucalyptus viminalis*) wet forest (Critically Endangered).

A 3-ha *Sphagnum* peatland (ASP) in excellent condition is located to the northwest of Mossy Marsh Pond, an artificial impoundment. Although this *Sphagnum* peatland is outside of the Project's disturbance footprint, it may be indirectly impacted by the Project due to hydrological changes associated with the decommissioning of part of Canal No. 2 and construction of the headrace tunnel. *Sphagnum* peatland is listed as a threatened native vegetation community under the Tasmanian NC Act, and it is also a component of the Alpine *Sphagnum* Bogs and Associated Fens TEC, which is listed as endangered under the EPBC Act.

Neither the Tasmanian Forests and Woodlands dominated by black gum or Brookers gum nor Tasmanian white gum wet forest TEC's occur within the disturbance footprint, and neither will be impacted by the Project.

Approximately 248.8 ha of the disturbance footprint intersects the priority vegetation overlay as defined in the Natural Assets Code clause C7.1. A map of the priority vegetation overlay, along with other key known natural values such as threatened vegetation communities, threatened flora species records, and known eagle nests and previous locations of fallen eagle nests, is shown in Figure 3-4. The mapped priority vegetation includes the two NC Act listed threatened vegetation communities, and it also includes significant habitat for threatened fauna such as mature eucalypt forest that may contain suitable denning features for devils or quolls and/or suitable tree hollows for masked owl nesting. Priority vegetation also includes vegetation that screens eagle nests from view of roads or major infrastructure; no vegetation within informal eagle nest reserves are likely to be impacted by the Project. However, only the priority vegetation that will be disturbed by construction of either of the new transmission line requires assessment against the Natural Assets Code, as only the Project activities west of the Nive River are being assessed by the Tasmanian EPA (refer Section 5.11).

Sections of the banks of the Nive River are directly adjacent to the proposed disturbance footprint; therefore, some native riparian vegetation will be temporarily disturbed during construction. The native riparian vegetation present at the proposed site of the new power station will be permanently removed. If the northern transmission line route option is selected, the transmission line will span the Nive River; however, the construction of the transmission line is unlikely to disturb native riparian vegetation as the tower pads are not located near the Nive River. If the southern transmission line route option is selected, the transmission line will span the southern bank of Dee Lagoon.

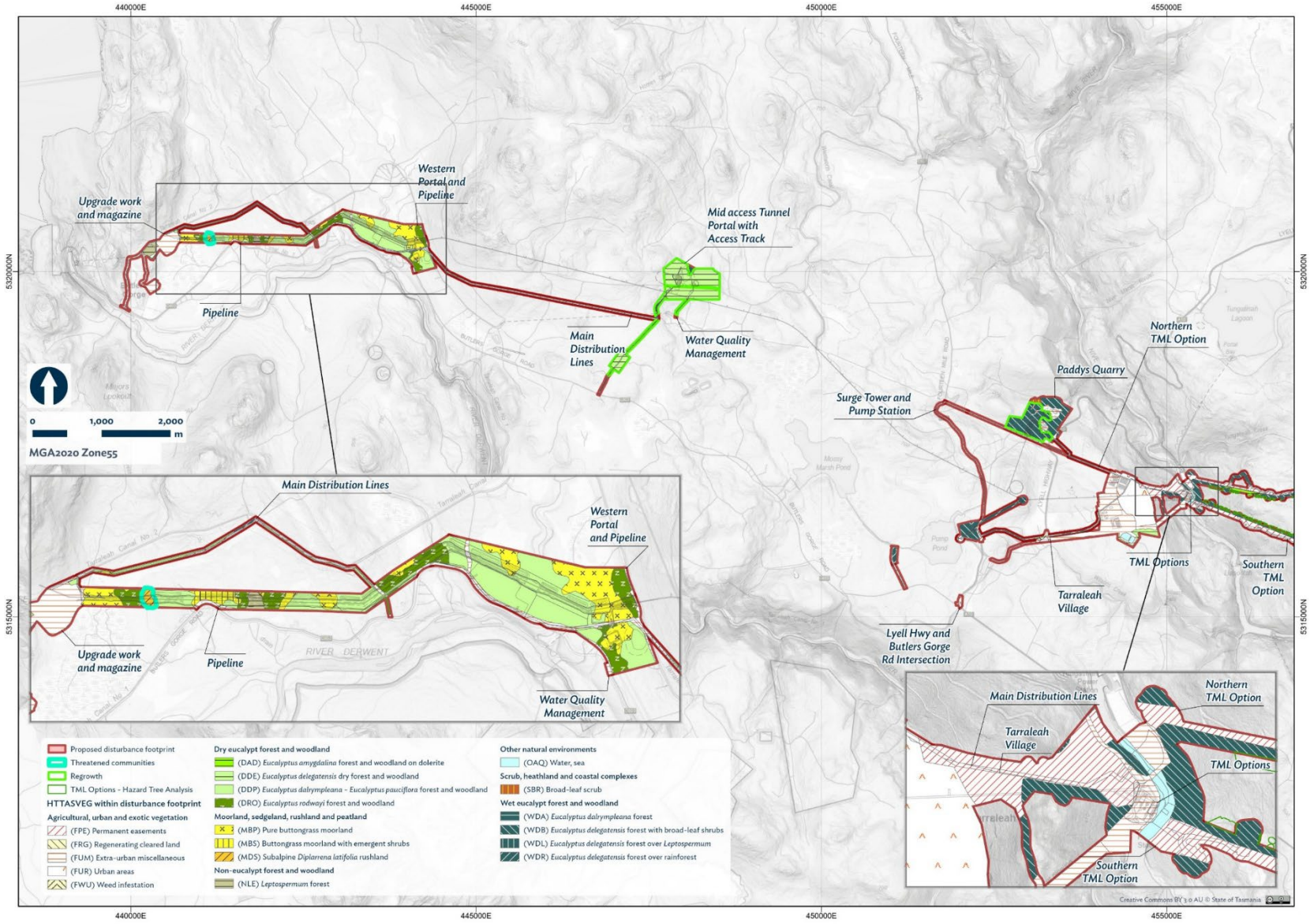



*Figure 3-1: Vegetation communities within the Tarraleah Redevelopment Project survey area west of the Nive River*

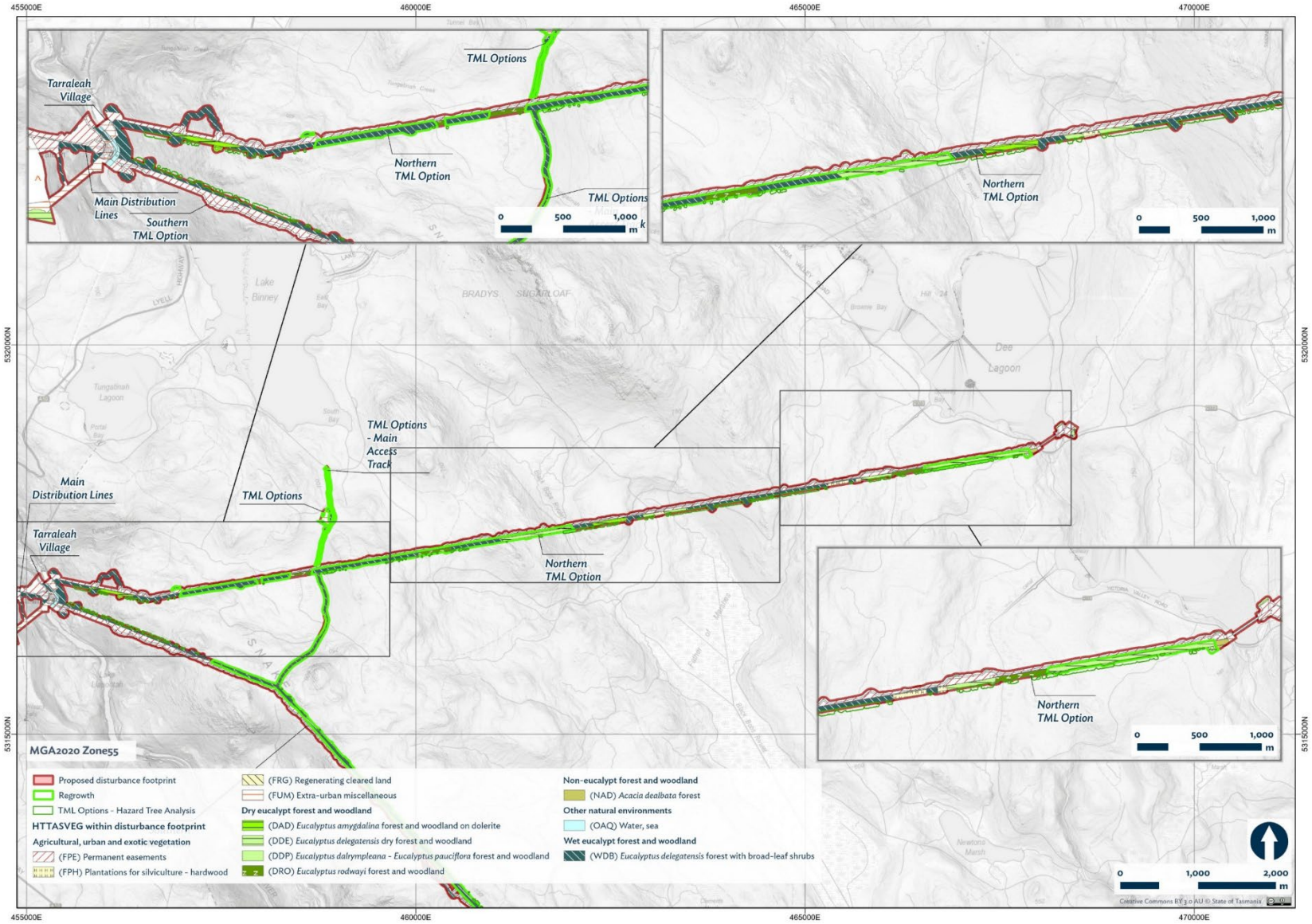



*Figure 3-2: Vegetation communities within the Tarraleah Redevelopment Project northern transmission line option survey area*

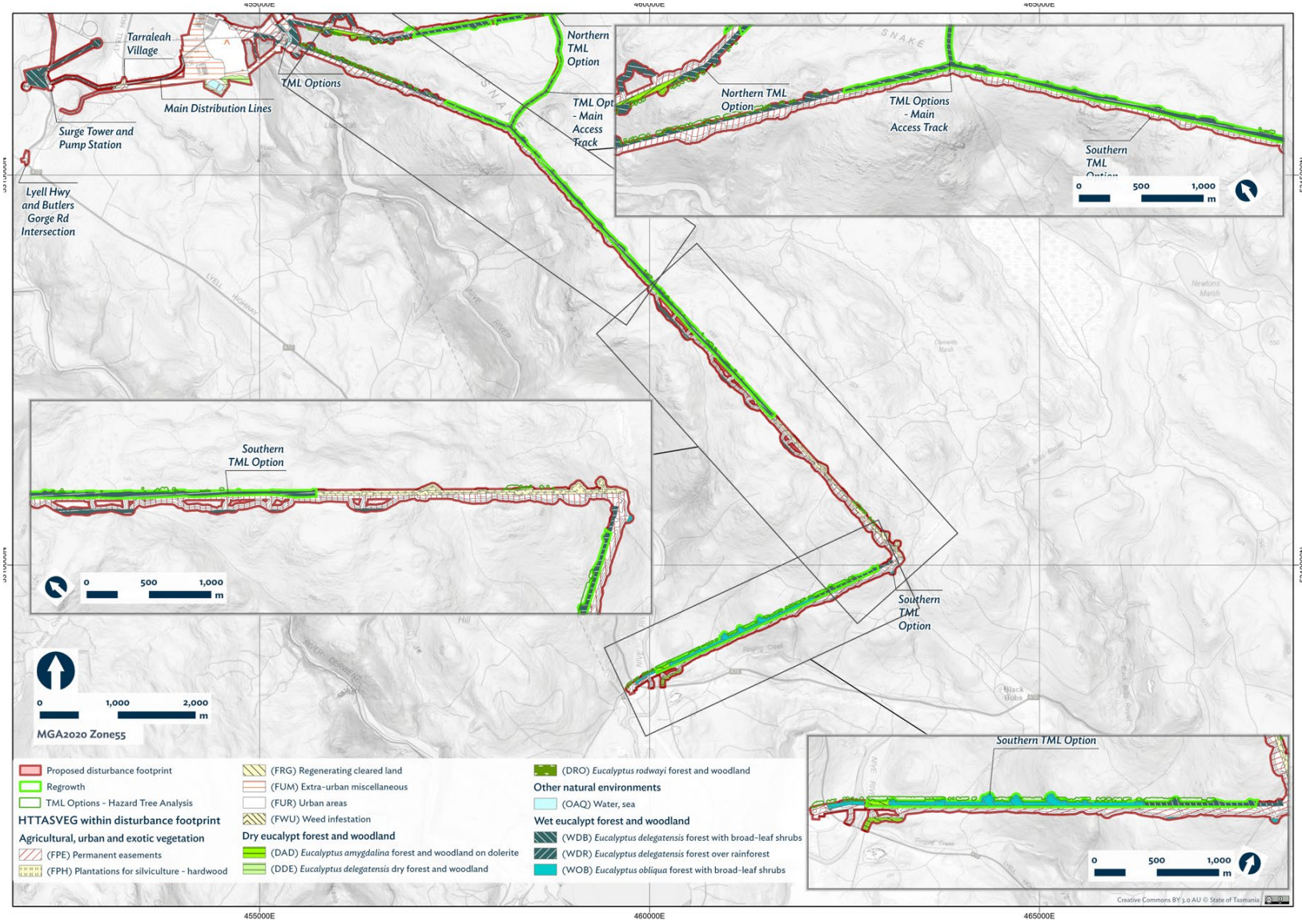



*Figure 3-3: Vegetation communities within the Tarraleah Redevelopment Project southern transmission line option survey area*

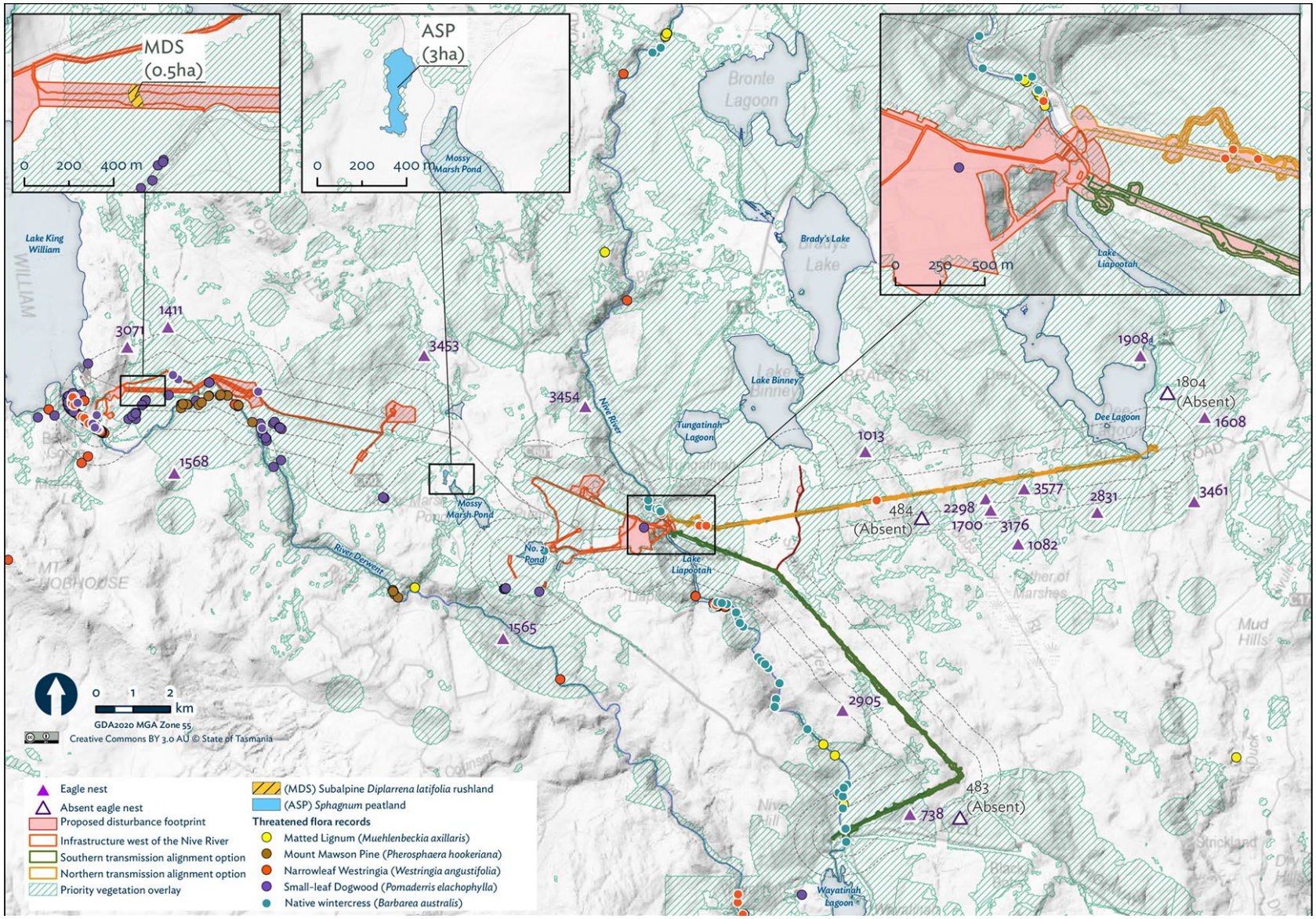



*Figure 3-4: Priority vegetation overlay from the Tasmanian Natural Assets code, with the project disturbance footprint, threatened flora records, and known eagle nests*

## Flora

The field surveys recorded 325 flora species within the Project survey area, of which 271 were native species and 54 were introduced species. Of these records, the following threatened flora species were recorded within the survey area:

- Narrowleaf westringia (*Westringia angustifolia*) – rare (Tasmanian *Threatened Species Protection Act 1995* - TSP Act)
- Matted lignum (*Muehlenbeckia axillaris*) – rare (TSP Act)
- Mount Mawson Pine (*Pherosphaera hookeriana*) – vulnerable (TSP Act)
- Small-leaf dogwood (*Pomaderris elachophylla*) – vulnerable (TSP Act)
- Native watercress (*Barbarea australis*) – Endangered (TSP and EPBC Acts).
- *W. angustifolia* was recorded at two locations along the northern transmission line alignment, and along the River Derwent between Clark Dam and Wayatinah Lagoon at three locations.
- *M. axillaris* and *P. hookeriana* were recorded in riparian areas along the River Derwent between Clark Dam and Wayatinah Lagoon. *M. axillaris* was also recorded in riparian areas along the Nive River.
- *P. elachophylla* was recorded on the edge of the western portal and pipeline disturbance footprint, adjacent to No. 2 Canal, and along the existing Lake King William to Derwent Pumps distribution line alignment which will be upgraded.
- *B. australis* was recorded from the River Derwent downstream of Wayatinah Lagoon and from the Nive River upstream and downstream of Lake Liapootah, including where the southern transmission line option would span the Nive River near Liapootah. There is also a small on the upstream face of the Tarraleah Pump Pond No. 2 dam wall above the existing outflow pipe.

## Fauna

Surveys recorded three habitat types within the disturbance footprint: dry eucalypt forest, wet eucalypt forest and buttongrass moorlands. Wet and dry forest provides suitable habitat for the Tasmanian devil (*Sarcophilus harrisii*) and spotted-tailed quoll (*Dasyurus maculatus maculatus*). No devil or quoll dens were identified during surveys; however, there are records of both threatened mammalian carnivore species within 5 km of the disturbance footprint and both species are considered likely to forage within the disturbance footprint.

The eastern barred bandicoot (*Perameles gunnii gunnii*) was identified by the PMST as a vulnerable fauna species that may occur in the region. This small marsupial is known to occur in the Tarraleah golf course, which outside of the Project's disturbance footprint. This species may occasionally forage over the proposed distribution line alignment within the existing easement at the edge of the golf course and Oldina Drive.

There are four eagle nests within 1 km of the current easement that will be widened to accommodate the transmission line if the northern alignment option is selected; all four of these eagle nests are located to the south of the proposed alignment, and two of the nests are within 500 m of the easement. There is another eagle nest located approximately 200 m from the current easement that will be widened to accommodate the transmission line if the southern alignment option is selected. The Tasmanian wedge-tailed eagle (*Aquila audax fleayi*), which is listed as endangered under both the TSP and EPBC Act, and the white-bellied sea-eagle (*Haliaeetus leucogaster*), which is listed as vulnerable under the TSP Act, may use these nests during a given breeding season. Both eagle species are sensitive to nest disturbance.

There are five additional threatened bird species listed under the TSP Act and/or the EPBC Act that are considered likely to occur or with potential to occur within the survey area. These include the:

- Swift parrot (*Lathamus discolor*) – known to forage in the local region, unlikely to nest given the Project is outside of breeding range for the species
- White-throated needletail (*Hirundapus caudacutus*) – potential to fly over
- Latham's snipe (*Gallinago hardwickii*) – potential to occur
- Tasmanian masked owl (*Tyto novaehollandiae castanops*) – known to occur but unlikely to nest within 150 m of the disturbance footprint
- Grey goshawk (*Tachyspiza novaehollandiae*, previously known as *Accipiter novaehollandiae*) – known to forage over the Project area; there is no suitable nesting habitat within 100 m of the disturbance footprint.

Other non-listed terrestrial fauna species known to occur within the survey area, such as the bare-nosed wombat (*Vombatus ursinus tasmaniensis*), are of conservation significance despite not being listed as threatened under the EPBC Act or TSP Act. There are also protected products of wildlife (e.g. wombat burrows) within the disturbance footprint.

Arboreal marsupial, bat and bird species use tree hollows in Tasmania, and all hollow-dependent fauna species are listed as having priority status under the Tasmanian Regional Forest Agreement. The known habitat trees within the survey area are shown in Figure 3-5.

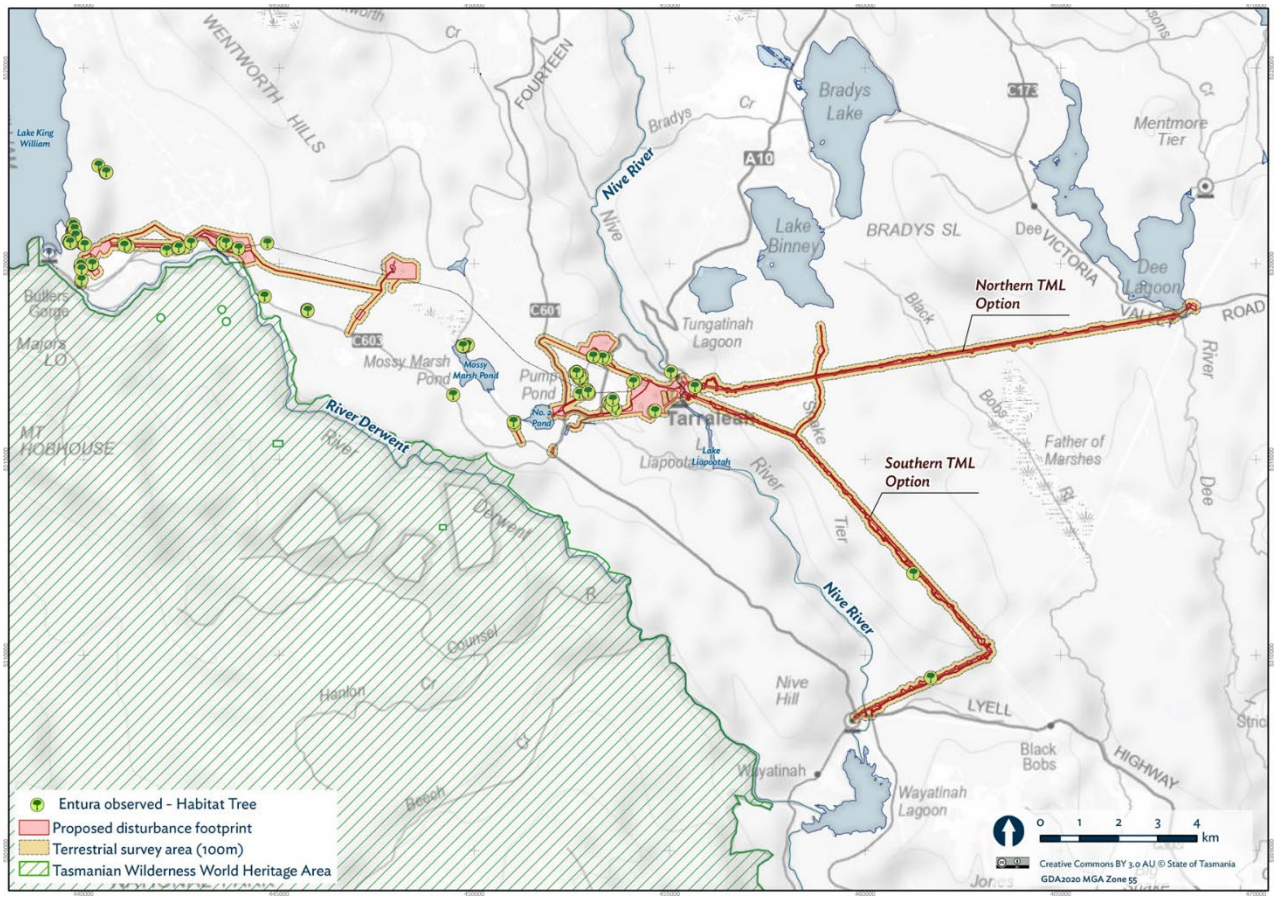



*Figure 3-5: Map of habitat trees within and near the survey area*

No aquatic fauna species listed under either the TSP Act or EPBC Act were recorded during surveys of the Project-associated waterbodies, nor are any threatened aquatic fauna species considered likely to occur. One species of fish – Clarence galaxias (*Galaxias johnstoni*) – was identified by the PMST as potentially occurring, but it is considered unlikely to occur as the waterbodies associated with the Tarraleah Redevelopment are outside the species' known range.

Other, non-listed aquatic fauna either recorded or considered likely to occur in the waterbodies associated with the Project include the native species freshwater crayfish (*Astacopsis tricornis*), short-finned eel (*Anguilla australis*), rakali (*Hydromys chrysogaster*) and platypus (*Ornithorhynchus anatinus*).

### Threats: weeds, diseases and pests

Fifty-four introduced plant species were recorded within the survey area.

Ten declared weeds listed on the schedules of the Tasmanian *Biosecurity Act 2019* are known to occur within the survey area:

- Californian thistle (*Cirsium arvense* var. *arvense*)
- English broom (*Cytisus scoparius*)
- foxglove (*Digitalis purpurea*)
- Spanish heath (*Erica lusitanica*)
- Montpellier Broom (*Genista monspessulana*)
- orange hawkweed (*Pilosella aurantiaca subsp. aurantiaca*)
- blackberry (*Rubus fruticosus*)
- ragwort (*Senecio jacobaea*)
- gorse (*Ulex europaeus*)
- serrated tussock (*Nassella trichotoma*).

There are significant infestations of English broom within the Tarraleah Conservation Area, at the Tarraleah Golf Course and at Tarraleah Village.

There was no evidence of *Phytophthora cinnamomi* infection (root rot or dieback) in the susceptible vegetation communities such as buttongrass moorland within the disturbance footprint.

There are no records on the NVA of chytrid fungus (*Batrachochytrium dendrobatidis*) within 5 km of the disturbance footprint.

Introduced European fallow deer (*Dama dama*) and European rabbits (*Oryctolagus cuniculus*) are known to occur in the region. Cats (*Felis catus*) are also known to occur in the Project area, particularly near the Tarraleah village and golf course. Cats are a known threat to bandicoots, birds, and a range of other native wildlife.

The introduced fish species brown trout *(Salmo trutta*) and rainbow trout (*Oncorhynchus mykiss*) occur in the waterbodies associated with the Project.

### Sites of geoconservation significance

There is one listed geoconservation feature within the disturbance footprint: the Western Tasmania Blanket Bogs. There is approximately 20.7 ha of the Western Tasmania Blanket Bogs within the disturbance footprint comprised of pure buttongrass moorlands (MBP) and buttongrass moorlands with emergent shrubs (MBS). This geoconservation feature is recognised as being the most extensive organosol (i.e. peat) terrain in Australia and the Southern Hemisphere. There are likely over one million hectares of blanket bogs across western Tasmania.

### Tasmanian Permanent Native Forest Estate

Within the disturbance footprint, there are nine forest communities that are managed in accordance with the *Tasmanian Permanent Native Forest Estate Policy*, which is required for compliance with the Tasmanian *Regional Forest Agreement Act 2002* (Cth, RFA). There are up to 133.5 ha of native forest communities within the disturbance footprint west of the Nive River, and if the northern transmission route is chosen, there will be an additional 63.2 ha; if the southern transmission route is chosen, there will be an additional 48.8 ha. Across all land parcels, there will be up to approximately 196.7 ha of native forest communities within the disturbance footprint, if the northern transmission option is chosen. There will be up to approximately 182.3 ha of native forest communities within the disturbance footprint, if the southern transmission option is chosen.

There are two land parcels where 20 ha or more of native forest is within the disturbance footprint. If clearance of 20 ha or more is undertaken within a 5-year period on one property, the clearance and conversion would be defined as “broad-scale” as per the *Permanent Native Forest Estate Policy.* This includes 123.1 ha of native forest to be cleared on a single property (CID1190358 located west of the Nive River. If the northern transmission line option is selected, there will be an additional 48.4 ha of native forest within a single property managed by Sustainable Timber Tasmania (CID1190043 -PID 3385073) that will be cleared and converted. If the southern transmission line option is selected, there would instead be an additional 48.8 ha of native forest within the same single STT-managed property (CID1154526 - PID 3385073) that will be cleared and converted. Thus, whichever transmission line option is selected for construction, the clearance and conversion of native forest on this single STT property within a 5-year period would be defined as “broad-scale clearance and conversion” as per the Permanent Native Forest Estate Policy.

### Reserves

The Tasmanian Wilderness World Heritage Area (TWWHA) is located to the south of the Project area. The closest point of the disturbance footprint to the TWWHA is approximately 25m in the vicinity of the Western Portal.

Hydro Tasmania proposes to develop the surge tower, with the associated rising main, access track and distribution line from Tarraleah Pump Pond No. 2 within the Tarraleah Conservation Area. The 13.7 ha within the disturbance footprint constitute 1.4% of the 967.2 ha reserve area. Proposed clearance of up to 10.4 ha of native vegetation within the disturbance footprint within the conservation area constitute 1.2% of the approximately 870.8 ha of mapped native vegetation within the reserve, the *Eucalyptus tasmaniensis* forest within the Tarraleah Conservation Area that may be cleared represents approximately 1.6% of the 653.3 ha of mapped *E. tasmaniensis*- dominated forest within the reserve.

The project’s disturbance footprint encompasses up to 105.4 ha of informal reserves on Permanent Timber Production Zone land or other STT managed land, of which up to 86.6 ha are native vegetation communities.

## 3.2 Aboriginal heritage

An Aboriginal heritage assessment has been completed for the Project. Due to the culturally sensitive information it contains, the full report is not publicly available with this DA but has instead been provided to Aboriginal Heritage Tasmania (AHT) in accordance with the Tasmanian *Aboriginal Heritage Act 1975* (AH Act).

At the time of European arrival, the upper Derwent region lay within the territory of the Big River nation, the most landlocked of the Tasmanian Aboriginal groups. European settlers named the Ouse River the "Big River," though the traditional name recorded was *bangener wappo*[2].

The Big River nation's territory encompassed the highland lake country, extending south to New Norfolk, north-west to Surrey Hills, and east to the edge of the midland plains. Without a coastline, the Big River people maintained access to lowlands and coasts through social agreements with neighbouring groups.

The nation is thought to have comprised five or six distinct clans. The Larmairremener, numbering an estimated 60–80 people, occupied the high country west of the Dee River. Specialists in sub-alpine life, they practiced a culture adapted to highland conditions.

For the first decade of European settlement, the Larmairremener continued their culture largely undisturbed. This changed in the 1820s as settlers, cattle and sheep moved into hunting grounds along the Derwent, Ouse and Clyde rivers, with summer grazing on the highland marshes.

From 1822, expropriation of clan lands for white pastoralists turned the Ouse and Clyde valleys into strategic corridors for Aboriginal resistance. Between 1824 and 1831, the Big River people mounted sustained guerrilla-style attacks on settlers and property. By the end of 1831, after sustained reprisals and hardship, only 26 Big River people remained, including several Larmairremener, when conciliator G.A. Robinson persuaded them to lay down their arms[3].

The Aboriginal heritage assessment, comprising desktop and field surveys, identified ten Aboriginal heritage sites, all small surficial stone artefact sites, fall within or close to the Project area. Seven were identified during Project assessments; three were recorded in earlier assessments of transmission line upgrades. Two of the latter could not be relocated and are presumed lost, though they remain registered under the AH Act. A further four Potential Areas of Sensitivity (PAS) for small scatters and single artefacts were identified. PAS are zones considered prospective for statutory relics or cultural deposits based on landscape, geomorphological, associative or other predictive factors, despite no relics being observed on the surface.

The small number, size and low-density distribution of stone artefact sites between Dee Lagoon and Butlers Gorge suggests that the country was not intensively managed prior to European arrival but was used strategically for rapid transit and associated curation and harvesting of resources when travelling between larger and more intensively utilised living places. This interpretation of the local site patterning is largely consistent with that of previous research, that propose a pattern of seasonal or sporadic hunting and foraging within the hinterland of larger river valleys that formed the main travel corridors.

2 Robinson, G. A. & Plomley, N. J. B. (2008). *Friendly mission: the Tasmanian journals and papers of George Augustus Robinson, 1829-1834*, N.J.B. Plomley (ed), Queen Victoria Museum and Art Gallery; Quintus, Launceston, Tas.

3 Ryan, L. (2012). *Tasmanian Aborigines A history since 1803*. Allen and Unwin, St. Leonards, NSW.

Unlike statutory artefacts defined under the AH Act, there is no formal definition of Aboriginal cultural landscape values in lutruwita/Tasmania. Knowledge of the land management systems used by Big River people was lost soon after European arrival and cannot be reimagined or reconstructed without the involvement of today's Aboriginal community. However, it is clear that the land between Lake King William and Tarraleah would have been managed according to long-standing cultural templates until dispossession, with traces surviving in relict form to the present. 102 known culturally significant plants were identified within the Proejct area. The distribution and frequency of plants encompassing a range of cultural food, medicinal, tool and other uses within the Project area demonstrates that the landscape still retains a high degree of culturally relevant biodiversity.

All registered sites within the Project's disturbance footprint are situated close to or on existing transmission line access tracks and as such, impacts relating to identified artefacts relate to potential direct physical disturbance or concealment.

Key potential impacts from the Project on Aboriginal heritage sites include:

- Physical disturbance or concealment due to track widening or laydown activities
- Vehicular impacts.

Key potential impacts from the Project on PAS include:

- Vegetation clearance, full depth disturbance for portal construction and concealment during spoil management
- Minor encroachment on transmission line corridors
- Physical disturbance or concealment due to track widening/upgrades and laydown activities
- Vehicular impacts.

Aboriginal cultural landscape values, and other intangible Aboriginal cultural values cannot be adequately identified by following the assessment process outlined in AHT's *Standards & Procedures*. These non-statutory cultural values are currently being explored through a voluntary process of Aboriginal community engagement involving on-country visits that will be reported separately. Based on feedback received from this process to date, impacts on non-statutory cultural values will be associated with above ground works and infrastructure in greenfield settings rather than underground works. The validity of this interpretation, contemporary relevance, and consequential impacts on intangible cultural values can only be attributed by the Tasmanian Aboriginal community.

## 3.3 Traffic

A Traffic Impact Assessment (TIA) has been completed with reference to the Department of State Growth's (DSGs) Publication *Traffic Impact Assessments Guideline* (August 2020) and the TPS. An assessment of the Project against the TPS (C2 and C3) is detailed in sections 5.8 and 5.9. The full TIA is provided in Appendix B.

A range of vehicles are expected to be utilised during construction of the Project. These include:

- Light vehicles, primarily utilised by Project staff travelling to the temporary WAF at Tarraleah Village and between construction sites.
- General access heavy vehicles primarily utilised to transport materials to and from the site and around the site. Shuttle buses will be utilised to transport workers between the WAF and construction sites to reduce light vehicle movements.
- Class 1, 2 and 3 heavy vehicles, per the NHVR Classes of Heavy Vehicles in the Heavy Vehicle National Law, transporting materials and equipment to and from the site. Class 1 vehicles encompass any OSOM vehicles.

NHVR Class 1, 2 and 3 heavy vehicles are primarily expected to travel to the Project area from Hobart, Launceston, Ulverstone and Wynard as well as the Port of Bell Bay and Port of Burnie. Generally, heavy vehicles coming from southern Tasmania will travel via Brooker Avenue, Brooker Highway and the Lyell Highway to the Project area and heavy vehicles travelling from northern Tasmania will travel via the Bass Highway, Meander Valley Road, Highland Lakes Road, Marlborough Road, Lyell Highway and Fourteen Mile Road.

An OSOM vehicle combination will be required to deliver the GRP pipe sections and the three 100MVA transformers (weighing approximately 100 tonnes each) to the Project area. Studies of the road network conclude that the Port of Bell Bay is the most appropriate location for the GRP pipes and transformers to be shipped to and stored. The OSOM route to the Project area would travel from Port of Bell Bay to New Norfolk (potentially via Frankford Road and the Bass Highway due to height restrictions on the East Tamar Highway), and then north-west on the Lyell Highway. No upgrades or modifications to the OSOM route are anticipated to be required. The number of OSOM vehicle movements during the construction of the Project is estimated to be approximately 400.

Project staff will primarily be accommodated in the WAF at Tarraleah Village, with travel to and from it expected from across Tasmania and interstate. Transport will be by light vehicle and shuttle bus (for interstate workers) and will generally follow the same routes as heavy vehicles. Staff movements are expected to occur outside peak periods, at varied times, and are therefore unlikely to significantly impact the surrounding road network. During construction, both heavy vehicles and Project staff light vehicles will primarily use the following DSG and CHC–owned roads: Lyell Highway, Oldina Drive (south), Fourteen Mile Road, Victoria Valley Road (northern transmission line option), and Wayatinah Road (southern transmission line option). In addition, several Hydro Tasmania–owned private roads and access tracks will be used, including Butlers Gorge Road, a section of Oldina Drive (south) approaching Tarraleah Village, and circulation roads within Tarraleah Village (Appendix B—Section 3.4).

Transport of staff between construction sites and the WAF will predominantly be by bus. Butlers Gorge Road will be closed to public access during construction. Except for temporary safety-related closures, Oldina Drive (south) between the Lyell Highway and Tarraleah Lookout will remain open for public access. Other sections of Oldina Drive (south) within Tarraleah Village will be closed during construction. Aside from staff transport, the main vehicle movement between construction sites will be the haulage of spoil from the power station site to the Paddy's Quarry spoil emplacement area. Anticipated traffic volumes during construction (including both existing and construction traffic) are described in the TIA with reference to AM and PM peak hours defined as AM 7am to 8am and PM 3.30pm to 4.30pm. Vehicle movements during each peak period are assumed to represent 25% of daily movements. This is considered conservative, as deliveries are typically spread throughout the day.

Traffic modelling was undertaken for the intersections with the highest number of opposing traffic movements during the AM and PM peak hours: the Lyell Highway/Oldina Drive (south) intersection and the Lyell Highway/Tarraleah Power Station intersection. These were assessed as representing the worst-case potential outcomes on the network during peak periods.

Level of Service (LOS) is a measure of the quality of service experienced by road users, considering factors such as speed, delay, travel time and safety. LOS A indicates free-flowing traffic with minimal delay, while LOS F represents heavy congestion and long delays. The modelling results, summarised in Table 3-1, show that both intersections are expected to maintain LOS A during both AM and PM peaks. This indicates that, although traffic volumes will increase during Project construction, traffic flow at the two key intersections will not be adversely affected.

*Table 3-1: Traffic at relevant project intersections*

| INTERSECTION | PEAK HOUR | APPROACH | DEGREE OF SATURATION | AVERAGE DELAYS (SECONDS) | 95 PERCENTILE QUEUE (METERS) | LOS |
|---|---|---|---|---|---|---|
| Lyell Highway/ Oldina Drive (south) intersection | AM | South: Lyell Highway | 0.032 | 1.0 | 0.3 | A |
| | | East: Oldina Drive (south) | 0.200 | 6.0 | 7.4 | A |
| | | North: Lyell Highway | 0.005 | 0.9 | 0.0 | A |
| | | All | 0.200 | 5.2 | 7.4 | A |
| Lyell Highway/ Tarraleah Power Station intersection | PM | South: Tarraleah Power Station | 0.047 | 1.2 | 1.6 | A |
| | | North-east: Lyell Highway | 0.094 | 5.8 | 4.0 | A |
| | | North-west: Lyell Highway | 0.037 | 8.5 | 0.8 | A |
| | | All | 0.094 | 5.3 | 4.0 | A |

The Project is not expected to increase staffing requirements during operation and will therefore not result in additional light or heavy vehicle movements or overall traffic volumes.

## 3.4 Visual

A visual impact assessment (VIA), based on the Tasmanian Forest Practices Authority's *A Manual for Forest Landscape Management* (2006), has been completed for the project. The VIA is provided in Appendix C.

Landscape character types (LCTs) are physiographic regions with common distinguishing visual characteristics of landform, waterform, vegetation and cultural influences. Tarraleah falls in the very northern edge of the High Mountains Landscape type that borders the Central Plateau type.

Hydro-electric development is a characteristic element within both LCTs and includes features of the Project such as the power station, surge tower, penstocks, canals, transmission lines, intakes, tunnels and other ancillary infrastructure. Production forestry is another key feature of the regional landscape surrounding the Tarraleah area, particularly to the eastern and south-eastern approaches. Further west, the landscape is dominated by high buttongrass plains and the mountains of the southern end of the Cradle Mountain-Lake St Claire National Park and the TWWHA further to the south-west.

The VIA includes an assessment of the significance of visual impact, which combines assessment of landscape sensitivity and magnitude of impact using a risk matrix with the interactions evaluated to determine the significance of an impact.

The assessment of the Project overall is that it is of low significance prior to any further mitigation measures being applied.

The figures below provide viewpoint mapping and photomontages to illustrate the extent and nature of landscape change associated with one of the largest permanent infrastructure elements of the Project, the surge tower, from Mount King William (Figure 3-6 and Figure 3-7), and from Oldina Drive at Tarraleah Village (Figure 3-8). Several viewpoints have additionally been captured along the Lyell Highway, including the view from the Tarraleah golf course, and are included Appendix C.1.

It should be noted that the southern transmission line option was not specifically modelled for visual impacts in this assessment. Although it is on a different alignment to the northern transmission line, it traverses similar landscapes and interacts in a similar way with potential viewing points (from roads etc.). It also requires similar changes to the existing landscape, such as some clearing of vegetation to achieve clearances along existing corridors and easements. Whilst the impacts on visual amenity might be slightly different when compared to the northern option, they are considered to be of low significance. Management measures for both transmission lines options remain the same.

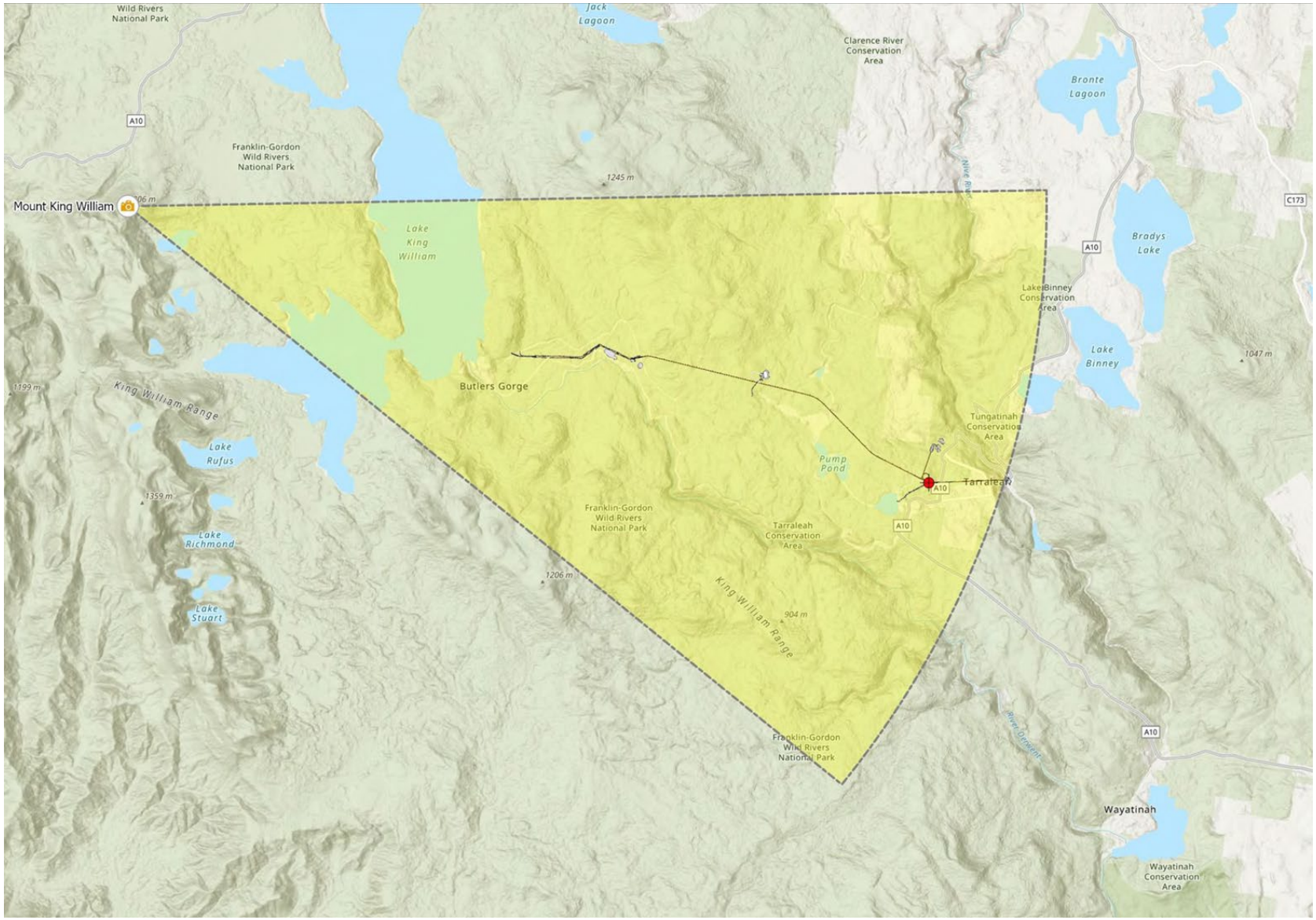



*Figure 3-6: View Point Map - Surge Tower Visual Simulation - View from Mount King William*

BotN – Tarraleah Surge Tower Visual Simulation
View from Mount King William

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 428,933m
Northing: 5,316,162m
Elevation: 1326.0m
Photo Bearing : 109°

Date: 24/01/2024
Time: 12:23 PM
Weather: Partial cloud cover
Visibility: Normal

Camera: Canon EOS 5D Mark IV
Camera Height: 1.65m
Focal Length (35mm eq.): 50mm
Hz FOV: 40.3°

Distance : 25.35 km

*Figure 3-7: Tarraleah Surge Tower Visual Simulation, view from Mount King William*

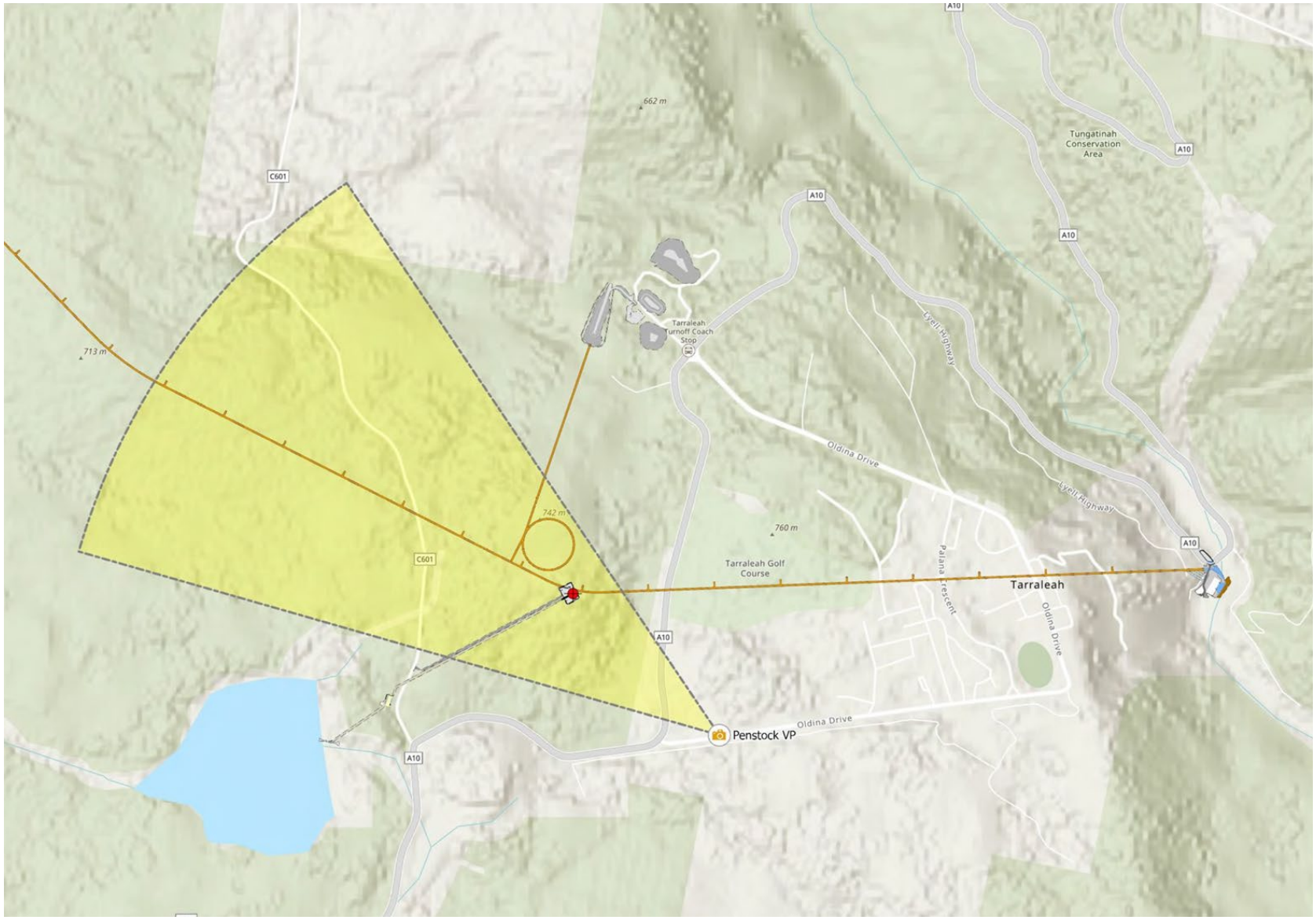



*Figure 3-8: View Point Map - Surge Tower Visual Simulation - View from Oldina Drive*


*Figure 3-9: Visual Simulation - Surge Tower - View from Oldina Drive*

## 3.5 Bushfire

The Project area falls within a Bushfire-Prone Area as defined by the TPS. As no subdivision or habitable buildings are proposed for the area, a bushfire assessment was not mandatory as part of the preparation of this DA. Despite this, a Preliminary Bushfire Hazard Analysis has been prepared (Appendix D). A summary of this report is provided below.

A risk assessment using the Tasmanian State Fire Management Council's *Bushfire Risk Management Planning Guidelines* and the Tasmanian State Emergency Service *Emergency Risk Assessment Guidelines* (TERAG) found the most significant bushfire risks for the Project are:

- A bushfire originating external to the Project area and directly impacting some or all of the Project area.
- Accidental ignition of fire during construction or operational activities including hot works, plant and machinery, smoking or poor maintenance of infrastructure resulting in fire entering the external environment.
- The potential for Butlers Gorge Road being impacted during a fire event, making egress not possible and entrapment occurring.
- Project staff and contractors are unlikely to be adequately trained or equipped to fight a significant bushfire event.
- Communication blackspots potentially hindering early bushfire notification, delaying warnings and evacuations, and potentially causing entrapment of occupants.

Although the bushfire risk level for the Butlers Gorge and Tarraleah human settlement areas is currently identified as low and very low in the Midlands Fire Management Area Bushfire Risk Management Plan (BRMP) Risk Register, these risk levels are expected to increase significantly during the Project's construction period due to an increase in site occupancy and activity.

The main bushfire risk to natural assets within and external to the Project area is considered to come from fire regimes (planned or unplanned) that are outside Tolerable Fire Intervals (TFI). A TFI is the time taken for vegetation types to reach reproductive maturity following a fire. TFIs within thresholds of a particular vegetation community will help maintain long-term viability, whereas TFIs outside thresholds are likely to lead to progressive changes in the structure and floristics of the vegetation community, and loss of habitat for fauna favouring that vegetation community.

High intensity bushfires that burn some or the entire Project area can damage or destroy fauna habitat including:

- Tree hollows used as nests and dens by many birds and arboreal mammals
- Mature, deteriorating or dead trees that can be important invertebrate, bird and reptile habitat, and take a long time to replace
- Understorey species that provide nest and shelter sites as well as a food source for many bird and mammal species
- Fallen logs, bark and leaf litter that provide shelter and a food source for invertebrates, frogs, reptiles, birds, and mammals.

Asset protection zones, hazard management areas, and fuel breaks will be implemented where necessary and will be compliant with State Government guidelines and industry best practices. Additionally, static firefighting water supply and equipment fill points for the purposes of supporting any firefighting requirements will be provided to ensure impacts from bushfire (should they arise) are minimised as far as practicable.

## 3.6 Community engagement

A Stakeholder Engagement Plan (SEP) has been prepared for the Project by Hydro Tasmania. The SEP has been informed by a Social Baseline Study (SBS), which describes the socio-economic conditions of the region within which the Project is situated. The SBS has also informed the stakeholder mapping process.

Given the context of the Project area, that is, predominantly production forestry and hydropower generation, there are very few directly and indirectly impacted landholders and communities in the vicinity of the Project. The key impacts from a community perspective are those related to visual changes in the landscape (during construction and operation) and traffic and noise impacts during construction in the vicinity of the Tarraleah Village to visitors accessing the amenities and penstock viewing area. The Tarraleah Hydropower Scheme (and other infrastructure associated with the River Derwent hydro-electric scheme) has been a feature of the local and regional landscape for over 80 years. Regional communities are therefore acclimatised to the features of the landscape associated with hydropower generation and transmission.

Based on the social and cultural context of the Project, consultation and engagement activities have been focussed on the following key stakeholders:

- Aboriginal communities/groups
- Local government authorities
- Anglers and other recreational user groups
- Downstream users and water licensees
- Local health and community service providers within Central Highlands and Derwent Valley council areas
- EPA
- STT
- PWS
- Tasmanian Department of State Growth
- Owner of Wayatinah Lakeside Caravan Park
- Local volunteer fire and State Emergency Service brigades
- Holiday communities and tourist villages such as Bronte Park and Bradys Lake, located approximately 10 km and 6 km respectively to the north-east of the Project area.
- Communities of Ouse and Hamilton, the closest towns along the Lyell Highway, which may be impacted by traffic and transportation of over-dimensional loads at times during construction.

Community engagement has been in the form of early community information sessions and interest group briefings, as well as sharing Project updates through social media posts, local print media, public notices on community notice boards, and a dedicated Project webpage. The Project webpage includes FAQs, capacity to ask a question and a 'subscribe' facility to enable interested parties to receive updates, notifications and general information through direct mail-outs. The webpage includes a specific section on the EPBC referral process, including an update on this new referral.

The Hydro Tasmania external website (**hydro.com.au**) also provides Project information and a direct link to the engagement site.

Holiday homeowners have been directly engaged and they actively shared project information with other holiday homeowners scattered around the shores of the region's lakes and lagoons, through posters and flyers. The focus of these engagements has been around potential impacts and opportunities of the Project relating to housing availability in the context of a large construction workforce, and access to regional waterways for recreational fishing and boating.

Early-stage community drop-in sessions and interest group briefings were held in 2022. Further drop-in sessions were held in March 2023, with information stalls in April 2023 and April 2025.

The angling community has been engaged through briefing sessions with the *Anglers Alliance* (October 2022) and *Trout Guides and Lodges Association of Tasmania* (October 2022), as well as regular communications with Inland Fisheries Service and Marine and Safety Tasmania, as key communication channels for recreational users of the lakes and waterways within the Project area.

Central Highlands Council have been closely engaged from early stages of the Project and ongoing engagement is planned. This included a briefing in March 2022 and a site tour for Council staff in November 2022. Councillors were briefed in a one-hour Workshop in September 2024. Planning for a site tour for Councillors is currently underway. Other municipalities (Derwent Valley Council, Brighton Council) have been informed about the Project and offered briefings (which have not yet been taken up).

Aboriginal community members have been engaged in multiple ways. This has included the involvement of Aboriginal Heritage Officers and community members in heritage surveys, as well as in the identification and relocation of Aboriginal heritage artefacts from areas directly impacted by the upgrade works. Aboriginal consultants contributed to the early architectural design options and cultural interpretation of the proposed new Tarraleah Power Station. These and other engagement activities have supported broader consultation with the community on the Project. The Tasmanian Aboriginal Heritage Council was briefed in October 2022.

In alignment with Hydro Tasmania's *Aboriginal and Torres Strait Islander Commitment and Action Plan* (CAP), prior to and during construction of the Project, a program of access to Hydro Tasmania managed land in the Derwent hydropower scheme will be facilitated so that Tasmanian Aboriginal People can connect to Country and share stories. This will inform the development of a broader cultural values mapping process to support Hydro Tasmania's future land management practices. Ongoing engagement with Aboriginal communities and organisations is also occurring under the CAP, with a focus on maximising employment and supply chain opportunities associated with the Project.

## 3.7 Other matters

In preparation of the EIS, a number of other potential environmental impacts have been assessed. In addition to the above (i.e. flora and fauna, Aboriginal heritage, community engagement, traffic, visual and bushfire) other technical studies completed as part of the EIS include:

- Surface and groundwater assessments
- Air quality and greenhouse gas effect assessments
- Noise and vibration assessments.

Each of these reports/assessments, as well as the reports mentioned in the sections above, can be viewed with the Project EIS on the Tasmanian Environmental Protection Authority's (EPA) website.

# 4. Legislative context

## 4.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth EPBC Act provides for the protection of MNES and the conservation of Australia's biodiversity. While the states are primarily responsible for environmental impact assessment, projects (actions) that may impact MNES can also require assessment by the Commonwealth Department of Climate Change, Energy, the Environment Water (DCCEEW).

Matters of national environmental significance relevant to the Project include:

- One listed threatened ecological community – Alpine *Sphagnum* Bogs and Associated Fens
- One listed threatened flora species – *Barbarea australis*
- Seven listed threatened fauna species – four mammals (Tasmanian devil, spotted-tailed quoll, eastern quoll, eastern barred bandicoot) and three birds (wedge-tailed eagle, swift parrot, masked owl)
- Two listed migratory species – white-throated needletail and Latham's snipe
- The Tasmanian Wilderness World Heritage Area and National Heritage Place.

A referral under the EPBC Act was submitted to DCCEEW in May 2023 (EPBC 2023/09482). The Project was determined to be a controlled action, with controlling provisions identified as World Heritage properties, National Heritage places, listed threatened species and communities, and listed migratory species.

Further design and constructability work since the original referral resulted in an updated Project design and disturbance footprint. After consultation with DCCEEW, the original referral (EPBC 2023/09482) was withdrawn, and a new referral was submitted in June 2025 (EPBC 2025/10226). In September 2025, the Project was again determined to be a controlled action with the same controlling provisions.

In November 2025, the Australian Government passed the Environment Protection Reform Bills, which introduced changes to the EPBC Act. These reforms include establishing a National Environmental Protection Agency and giving the Environment Minister authority to set National Environmental Standards. These changes will be implemented into the legislation progressively from 1 July 2026. Any referrals submitted before this date will continue to be assessed under the existing EPBC Act. Accordingly, the Project will not be subject to the regulations introduced by the new reform bills.

## 4.2 Land Use Planning and Approvals Act 1993

The Tasmanian *Land Use Planning and Approvals Act 1993* (LUPA Act) is the primary development control legislation within Tasmania's Resource Management and Planning System (RMPS). The LUPA Act enables the operation of the State Planning Provisions and Local Provisions Schedule through the TPS, as applied by the relevant local council area—in this case, the Central Highlands.

In accordance with s.51 of the LUPA Act, a permit is required for the use and development of land for the Project.

Additionally, under s.60A(2) of the LUPA Act, Hydro Tasmania, as a Water Entity administering a Water District, is not required to hold a planning permit for activities necessary for the operation, maintenance, repair, minor modification, upgrading or replacement of existing Hydro Tasmania assets—provided the works will not cause an environmental nuisance, material environmental harm, or serious environmental harm.

This exemption was not invoked, as the Project involves environmental impacts that are not considered negligible.

## 4.3 Environmental Management and Pollution Control Act 1994

The Tasmanian *Environmental Management and Pollution Control Act 1994* (EMPC Act) is the primary legislation regulating environmental protection and pollution control in Tasmania. Schedule 2 of the Act prescribes activities likely to cause environmental harm (Level 2 activities) and requiring detailed assessment by the EPA.

In accordance with s.25 of the EMPC Act, the Central Highlands Council referred the Project to the EPA in June 2024, following submission of a draft DA in April 2024. In August 2024, the EPA determined that construction of the proposed new conveyance infrastructure—which includes crushing more than 1,000 $m^3$ of rock per year, an activity listed under Schedule 2 of the EMPC Act [6(a) materials handling facility]—requires assessment by the Board of the EPA (the Board). The Project will therefore be subject to a Class 2C assessment.

EIS Guidelines (the Guidelines) were issued in August 2024 and amended in September 2025, and defined the Project activities subject to Board assessment Figure 4-1), namely:

- Headrace pipeline, approximately 4.2 km long and up to 4 m in diameter, connected to the intake on Lake King William and tunnel completed during upgrade works
- Arched headrace tunnel, approximately 12 km long, up to 6.5 m high and 5.5 m wide
- Access tunnels and portals to headrace and power tunnels, and associated permanent spoil storage stockpiles
- Surge tower, up to 75 m high (above ground level) and 14 m in diameter, with associated underground surge shaft to control water pressure in the headrace and power tunnels
- Pumping station and approximately 1.1 km pipeline to transfer water from the existing No. 2 Pond to the surge tower
- A partially underground power station with an installed capacity of approximately 180 MW and a rated flow of 60 $m^3/s$, located adjacent to the existing Tarraleah Power Station.

The Guidelines exclude the following Level 1 activities from assessment by the Board:

- New transmission line
- New switchyard.

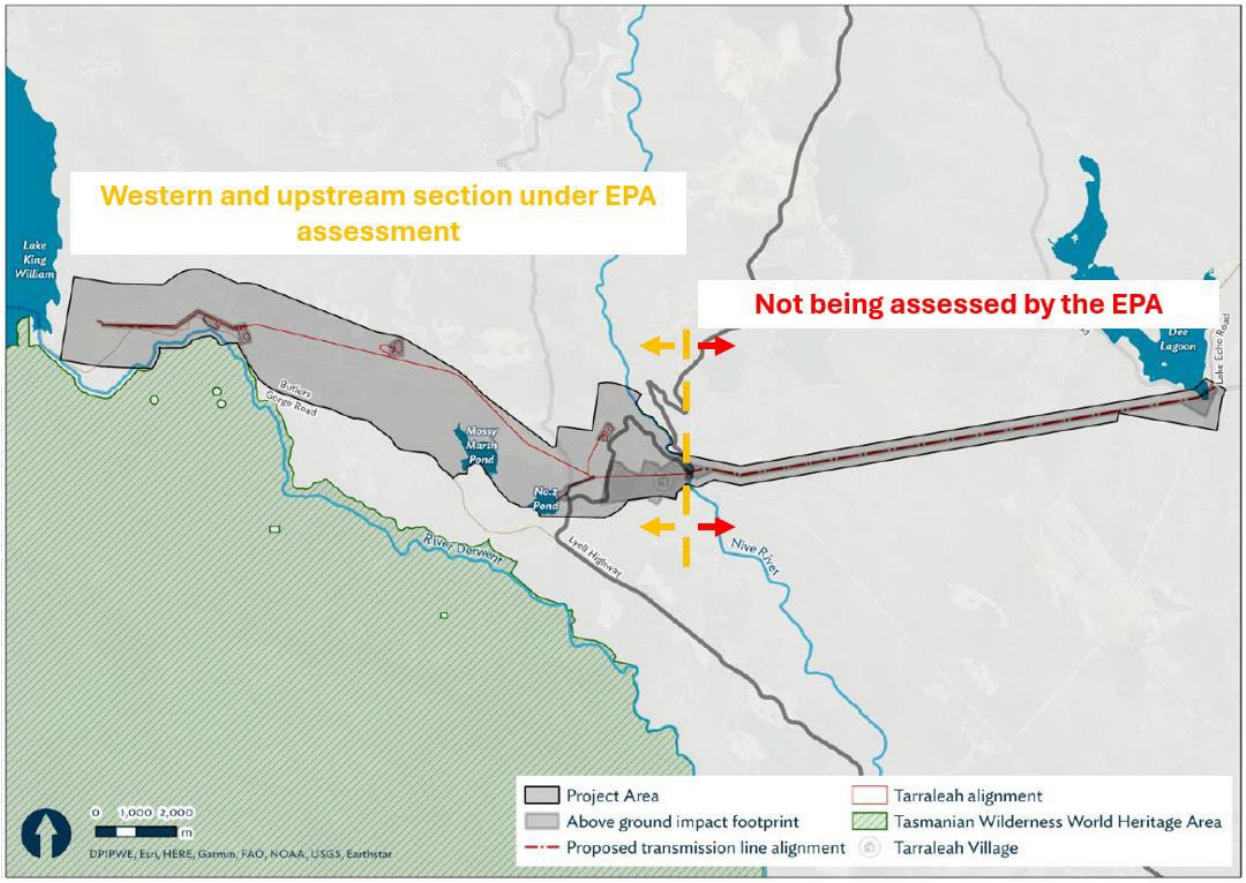



*Figure 4-1: Activities to be and not to be assessed by the Board of the Tasmanian EPA*

## 4.4 Aboriginal Heritage Act 1975

The Tasmanian *Aboriginal Heritage Act 1975* (AH Act) protects Aboriginal heritage in Tasmania. Under the Act, it is an offence to disturb, damage, or destroy any Aboriginal relic without a permit.

Surveys have recorded several Aboriginal artefacts within the Project area. The location of all confirmed Aboriginal heritage sites will be incorporated into Project plans and, where practicable, sites will be avoided. Where avoidance is not possible, a permit to relocate or disturb affected artefacts will be sought in accordance with the AH Act.

## 4.5 Threatened Species Protection Act 1995

The Tasmanian *Threatened Species Protection Act 1995* (TSP Act) sets out obligations relevant to the proposed development. In the absence of a permit:

- No listed species may be killed, injured, or collected
- Listed species on land subject to an interim protection order must not be disturbed
- Listed species must not be disturbed contrary to a land management agreement.

Twelve species listed under the TSP Act are known or considered likely to occur in the Project area. Where species cannot be avoided, a permit to "Take" under the TSP Act will be sought.

## 4.6 Nature Conservation Act 2002

The Tasmanian *Nature Conservation Act 2002* (NC Act) provides for the conservation and protection of Tasmania's fauna, flora, and geological diversity, as well as the declaration of national parks and other reserved lands.

One vegetation community, subalpine rushland (*Diplarrena latifolia*, MDS), may be directly impacted by the Project, while another, *Sphagnum* peatland (ASP), may be indirectly affected by hydrological changes resulting from Project operations. An offset for the *Sphagnum* peatland (ASP) community is proposed and will be established under a covenant in accordance with the NC Act.

## 4.7 National Parks and Reserves Management Act 2002

The Tasmanian *National Parks and Reserves Management Act 2002* (NPRM Act) ensures that reserve and national park areas are managed in accordance with the objectives for each reserve class, as set out through the Reserve Activity Assessment (RAA) process.

The proposed surge tower, pump station, pipeline, and associated access tracks from Fourteen Mile Road are located within the Tarraleah Conservation Area and require assessment under the NPRM Act. The Tasmanian Parks and Wildlife Service (PWS), as the managing authority for the Tarraleah Conservation Area, elected to conduct a parallel assessment (in place of an RAA) alongside the EIS submitted to the EPA. Information provided to PWS to support the parallel assessment is included in Appendix E.

## 4.8 Water Management Act 1999

The Tasmanian *Water Management Act 1999* (WM Act) is the principal legislation regulating the taking and management of water in Tasmania. Hydro Tasmania holds a special licence under Division 6, Part 6 of the WM Act, which allows the use of water resources for electricity generation.

Under this licence, Hydro Tasmania may take, store, and manage water for electricity generation without requiring any further licensing. The Tarraleah Hydropower Scheme and its associated hydrology are located within the Derwent hydro-electric district and are included within the rights conferred by Hydro Tasmania's special licence. The operation of both the existing Tarraleah hydropower scheme and the Project are regulated under the WM Act.

## 4.9 Forest Practices Act 1985

The Tasmanian *Forest Practices Act 1985* (FP Act) establishes the *Forest Practices Code*, which prescribes how forest practices are to be conducted. This includes activities such as the clearance and conversion of native vegetation, while also protecting natural and cultural values.

The clearance and conversion of native vegetation, and the clearance of threatened vegetation communities listed under the NC Act, would ordinarily require a Forest Practices Plan (FPP) under the FP Act; however, under the *Maintaining a Permanent Native Forest Estate Policy*, a Forest Practices Plan is not required for the construction of new major infrastructure, and therefore is not applicable to this Project.

## 4.10 Hydro-Electric Corporation Act 1995

The Tasmanian *Hydro-Electric Corporation Act 1995* (HEC Act) regulates certain activities undertaken by Hydro Tasmania. Under Section 8 of the Act, approval from both Houses of the Tasmanian Parliament is required to construct a major new power facility.

A "new power facility" is defined as a generating plant with an installed capacity exceeding 40 megawatts, or a limit fixed by regulation, together with (in the case of a hydro-electric generating plant) associated equipment to hold water or to direct, monitor, or control the flow of water for the purposes of hydro-electric generation.

## 4.11 Electricity Supply Industry Act 1995

The Tasmanian *Electricity Supply Industry Act 1995* (ESI Act) contains provisions that allow exemptions from planning permit requirements for certain electricity infrastructure works.

As the new power station will be located on the site of the existing Tarraleah Power Station Switchyard, the switchyard will therefore need to be decommissioned and demolished prior to the construction of the new power station. Demolition of the switchyard is not part of the works in this DA as they are exempt under Section 57 of the *Electricity Supply Act 1995* (ESI Act):

> *Where –*
>
> *(a) an electricity entity proposes to carry out work on the construction, installation, modification, maintenance, demolition or replacement of electricity; and*
>
> *(b) the work is of a kind classified by the regulations as work of minor environmental impact –*
>
> *the work is not to be regarded as development for the purpose of the Land Use Planning and Approvals Act 1993 and is not subject in any other way to that Act.*

Pursuant to section 8(g) of the *Electricity Supply Industry Regulations 2018* (ESI Regulations), work of minor environmental includes:

> *the installation, erection, removal, repair, maintenance, modification, or use, on land, of any electricity generating plant that –*
>
> *(i) is not used, or intended by the Hydro-Electric Corporation to be used, to generate electricity for more than 12 months after the plant is installed or erected on the land; and*
>
> *(ii) is installed or erected on land that is, or on land that is adjacent to, land on which there is already situated an electricity generating plant, substation or switchyard or on which not less than 200 gigawatt hours of electricity was consumed during the previous calendar year.*

As it is being removed, the existing switchyard will not be used to generate electricity and is therefore compliant with (i). Furthermore, the switchyard is on land that already contains an electricity generating plant, addressing (ii). Removal of the Tarraleah Power Station Switchyard is therefore considered to be work of minor environmental impact and meets the requirements of the planning exemption under Section 57 of the ESI Act.

Section 52 further grants an electricity entity the power to carry out work on public land, provided agreement is obtained from the authority responsible for managing that land.

## 4.12 State Policies

State Policies are made under the Tasmanian *State Policies and Projects Act 1993* (SPP Act). Currently, three State Policies address environmental management issues:

- Tasmanian Coastal Policy (Coastal Policy)
- State Policy on the Protection of Agricultural Land (PAL Policy)
- State Policy on Water Quality Management (SPWQM).

The hydrological regime of the Nive River (between the Tarraleah Power Station and its confluence with the River Derwent at Wayatinah Lagoon), the River Derwent (from below Clark Dam to Lake Catagunya), Mossy Marsh Pond, No. 1 Pond and No. 2 Pond are all influenced by the operation of the Tarraleah hydropower scheme. As a result, the Project may have both direct and indirect environmental impacts on several water bodies. The SPWQM will therefore apply, and where relevant, its objectives and guidelines must be met to ensure appropriate water quality management.

## 4.13 National Environment Protection Measures (NEPMs)

In Tasmania, National Environment Protection Measures (NEPMs) are taken to be State Policies. NEPMs are made under Commonwealth legislation and given effect in Tasmania through the Tasmanian *State Policies and Projects Act 1993* (SPP Act).

Current NEPMs include:

- Air Toxics NEPM
- Ambient Air Quality NEPM
- Assessment of Site Contamination NEPM
- Diesel Vehicle Emissions NEPM
- Movement of Controlled Waste between States and Territories NEPM
- National Pollutant Inventory NEPM
- Used Packaging Materials NEPM.

There are no inconsistencies between the outcomes of the NEPMs and the proposed development.

## 4.14 Environment Protection Policies

Two Environment Protection Policies (EPPs) are approved under the Tasmanian *Environmental Management and Pollution Control Act 1994* (EMPC Act):

- Environment Protection Policy (Air Quality)
- Environment Protection Policy (Noise).

EPPs set guidelines for emission levels expected to be achieved by developments. The Project is consistent with the outcomes of these policies.

## 4.15 Tasmanian Planning Scheme – Central Highlands

### 4.15.1 Use class

Within the TPS, the use of land and water for hydroelectric schemes is classified as Utilities. The planning scheme defines this as:

> *"Use of land for utilities and infrastructure including:*
> *(a) telecommunications*
> *(b) electricity generation*
> *(c) transmitting or distributing gas, oil, or electricity*
> *(d) transport networks*
> *(e) collecting, treating, transmitting, storing or distributing water*
> *(f) collecting, treating, or disposing of storm or floodwater, sewage, or sullage."*

## 4.16 Zones

The Project will span the following zones within the TPS, as summarised in Table 4-1 Table 4-1: and shown in Figure 4-2.

*Table 4-1: Summary of zones within Project area and associated infrastructure within those zones*

| ZONE | USE CLASS PERMISSIBILITY | ABOVEGROUND WORKS | UNDERGROUND WORKS |
|---|---|---|---|
| Rural | Discretionary | • Transmission line (both options)<br>• Permanent spoil emplacement areas<br>• Access roads<br>• Headrace pipeline | Headrace tunnel |
| Environmental management | Discretionary | • Road upgrades<br>• Surge tower and pipeline<br>• Pump station | Headrace tunnel<br>Access tunnel and portal to headrace tunnel/power tunnel |
| Recreation | Discretionary | - | Headrace tunnel |
| Village | Discretionary | Construction compound | Headrace tunnel |
| Utilities | Permitted | • New power station<br>• Transmission line (both options)<br>• Upgrades at No.2 Pond | - |

The zone purpose, use standards, and development standards for buildings and works are the relevant clauses for the Project under the TPS. No subdivision will be required, and therefore assessment against the subdivision development standards is not necessary.

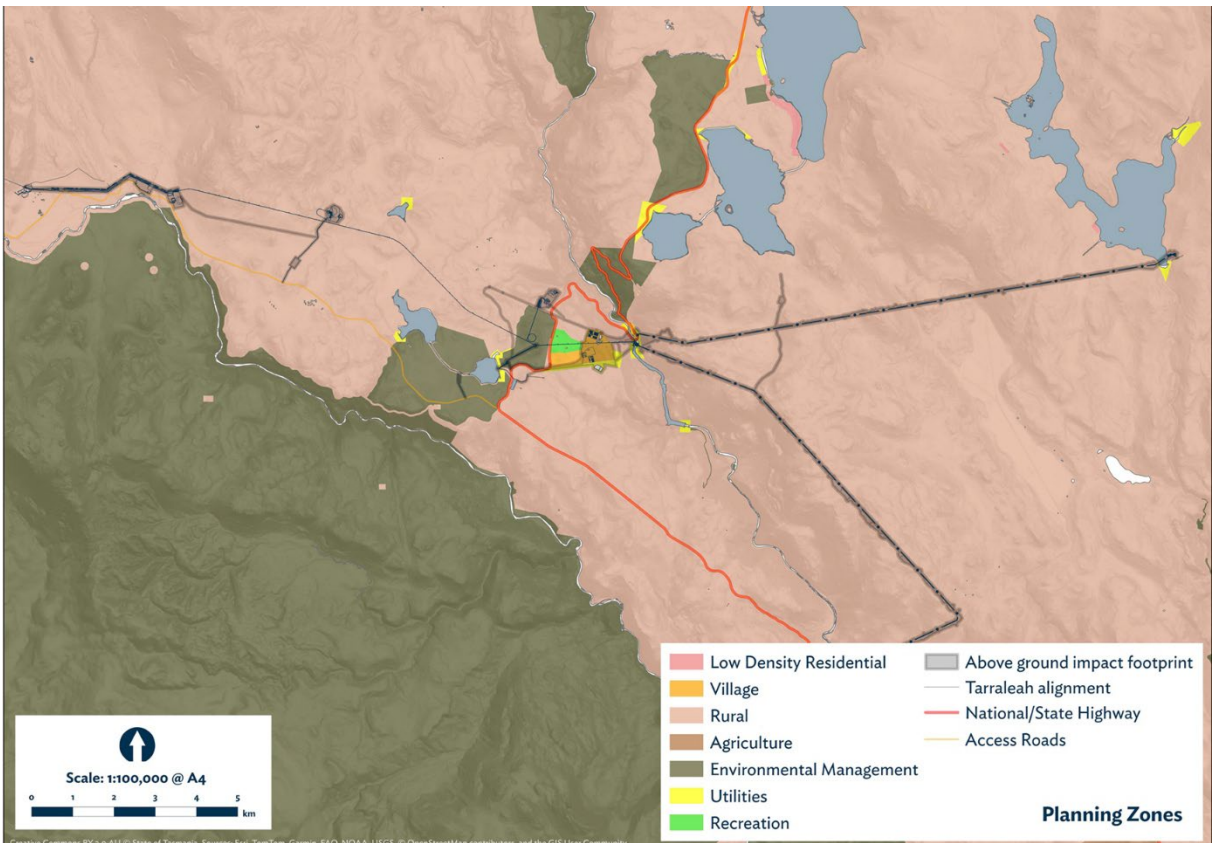



*Figure 4-2: Zoning within the Project area and its immediate surrounds*

## 4.17 Codes

Table 4-2 provides a list of all overlay codes under the TPS and describes their relevance, where applicable, to the Project. The relevant overlays are described in further detail in the following subsections.

*Table 4-2: Codes under the TPS and their relevance to the Project*

| TASMANIAN PLANNING SCHEME CODE | PROJECT RELEVANCE |
|---|---|
| C1.0 Signs Code | Does not apply.<br>No signage is proposed for the facility, except for those that meet the exemptions prescribed under Clause C1.4. Exempt signage that may be used, particularly during construction, will be portable reflective road safety signs to alert drivers to works that may be impacting use of the road.<br>Signage may also be used within construction sites; this signage is not intended to be visible from land outside of the construction sites and as such complies with C1.4.2. |
| C2.0 Parking and Sustainable Transport Code | Applies.<br>This code is applicable to the Project and has been assessed in section 5.8 with further detail provided in Appendix B. |
| C3.0 Road and Railway Assets Code | Applies.<br>This code is applicable to the Project and has been assessed in section 5.9 with further detail provided in Appendix B. |

| TASMANIAN PLANNING SCHEME CODE | PROJECT RELEVANCE |
|---|---|
| C4.0 Electricity Transmission Infrastructure Protection Code | Applies.<br>The Project area overlaps with an electricity transmission infrastructure area. Works however are exempt from the code as described in section 5.10. |
| C5.0 Telecommunications Code | Does not apply.<br>No telecommunications facility is proposed. |
| C6.0 Local Historic Heritage Code | Does not apply.<br>The Project is not located on any land within a local heritage place, a local heritage precinct, a local historic landscape precinct, or a place or precinct of archaeological potential – as defined under the TPS. |
| C7.0 Natural Assets Code | Applies.<br>This code is applicable to the Project and is addressed in section 5.11 and section 3.1. A detailed assessment against the code is provided in Appendix A1 and further detail also provided in Appendix A and F. |
| C8.0 Scenic Protection Code | Does not apply.<br>The Project is not mapped within a scenic protection area or scenic road corridor pursuant to C8.2.1 of the code. |
| C9.0 Attenuation Code | Does not apply.<br>There is an attenuation area within proximity to the Project area but it will not interfere with the Project as discussed in section 5.12 |
| C10.0 Coastal Erosion Hazard Code | Does not apply.<br>The Project is not mapped within a coastal erosion hazard area nor is it located on an actively mobile landform pursuant to C10.2.1 of the code. |
| C11.0 Coastal Inundation Hazard Code | Does not apply.<br>The Project is not mapped on land within a coastal inundation hazard area nor a coastal inundation investigation area pursuant to C11.2.1 and C11.2.2 of the code, respectively. |
| C12.0 Flood Prone Areas Hazard Code | The Project is not mapped within a flood-prone hazard area pursuant to C12.2.1 of the code. However, this code applies as, pursuant to C12.2.4, Council as the planning authority believes, based on information in its possession—being the Statewide Hazard Mapping—that the land is subject to risk from flood or has the potential to cause increased risk from flood. Further detail is provided in section 5.13 and Appendix G |
| C13.0 Bushfire-Prone Areas Code | Applies.<br>The Project area is mapped within a bushfire-prone area and is addressed in section 5.14 with further detail provided in Appendix D. |
| C14.0 Potentially Contaminated Land Code | Applies.<br>The proposal includes a new power station, which is listed as a potentially contaminating activity pursuant to C14.2 of the code. This is further addressed in section 5.15 with further detail provided in Appendix H. |
| C15.0 Landslip Hazard Code | Applies.<br>The Project area includes several landslip hazard areas, this is addressed in section 5.16 with further detail in Appendix I. |
| C16.0 Safeguarding of Airports Code | Does not apply.<br>The Project area is not mapped within an airport noise exposure area, nor is it mapped in an airport obstacle limitation area pursuant to C16.2.1 of the code. |

## 4.18 Local provisions schedule

There are no local provisions, particular purpose zones, specific area plans, or specific qualifications for the Central Highlands Council area, and therefore none apply to the Project. The existing elements of the power station are not locally listed as a heritage place or within a heritage precinct, and accordingly, the local heritage provisions are not applicable.

# 5. Planning Assessment

The Project has been assessed against the relevant provisions of Tasmania's Resource Management and Planning System (RMPS) and the Tasmanian Planning Scheme – Central Highlands Local Provisions Schedule (CHLPS), as detailed below.

## 5.1 Southern Tasmanian Regional Land Use Strategy

The Southern Tasmanian Regional Land Use Strategy (STRLUS) is a regional plan that sets the strategic direction for the 12 local government areas in southern Tasmania, including the Central Highlands. STRLUS is enacted by the State Government and aims to meet the key planning objectives set out by the RMPS by providing broad policies and goals to guide change, growth, and development in the region to 2035.

Section 6 of STRLUS identifies the region's water resources as a key area for sustainable development, with hydroelectric energy production contributing to the strategic direction of "*making the region nationally and internationally competitive.*"

This development would enhance energy generation and support energy efficiency for the State. It would also strengthen the Project by increasing generating capacity and futureproofing energy production, supporting the NEM, and giving the region a competitive advantage at the national scale.

Accordingly, the proposal is aligned with the outcomes of STRLUS.

## 5.2 Objectives of the Resource Management Planning System

The proposal has been assessed against the objectives of the RMPS, as summarised in Table 5-1.

*Table 5-1: Objectives of the RMPS*

| OBJECTIVE | COMMENT |
|---|---|
| **Part 1** | |
| to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity | The Project will facilitate generation of hydropower to promote renewable energy development in a sustainable manner. Impacts to threatened species and communities has been avoided where possible. Where impacts are unavoidable, mitigations have been developed to minimise overall impact as much as practicable. |
| to provide for the fair, orderly and sustainable use and development of air, land and water | The Project will use water and other resources fairly to promote sustainable renewable energy generation. |
| to encourage public involvement in resource management and planning | The public can be involved in the development process, through making representations. |
| to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c) | Future renewable energy development, for which the Project will provide, will facilitate local economic development through construction and more widely through power generation. |

| OBJECTIVE | COMMENT |
|---|---|
| to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State | The development will be assessed by the planning authority through consultation with other statutory authorities. |
| **Part 2** | |
| to require sound strategic planning and co-ordinated action by State and local government | Seeking approval through the planning scheme represents compliance with a coordinated process of approvals. |
| to establish a system of planning instruments to be the principal way of setting objectives, policies and controls for the use, development and protection of land | This objective is not directly applicable. |
| to ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land | Consideration of environmental impacts has been undertaken in the preparation of this DA. The Project has been designed to avoid impacts to threatened species and communities wherever possible and to minimise the disturbance footprint. |
| to require land use and development planning and policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional and municipal levels | The Project furthers this objective and takes into account State, regional and local planning policies and strategies. |
| to provide for the consolidation of approvals for land use or development and related matters, and to co-ordinate planning approvals with related approvals | This objective can only be met through legislative change. The Project will gain all necessary permits and approvals for its use and development. |
| to secure a pleasant, efficient and safe working, living and recreational environment for all Tasmanians and visitors to Tasmania | The Project will promote maintenance and improvement of environmental quality through the generation of renewable energy, to aid in securing a safe and pleasant environment for residents and visitors. |
| to conserve those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value | Much of the existing Tarraleah hydropower scheme has heritage value but is not subject to any statutory heritage listings at the local, state or national level. Nevertheless, the decommissioning of elements of the existing scheme that would no longer be used as part of the Project will be planned in consultation with Heritage Tasmania and other stakeholders. The *Aboriginal Heritage Act 1975* will apply should any Aboriginal heritage sites be discovered during construction works. |
| to protect public infrastructure and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community | The Project can be accommodated within the existing infrastructure systems. |
| to provide a planning framework which fully considers land capability | The Project does not directly affect this objective. |

## 5.3 Village zone

### 5.3.1 Works within the village zone

The Village zone includes areas associated with the existing residential village and land south of the Tarraleah Golf Course, both owned by Hydro Tasmania.

Above-ground works proposed within the Village zone include the establishment of a temporary construction compound on the land to the south of the Tarraleah Golf Course. The compound will contain workshops and laydown areas and potentially a concrete batching plant. The site of the construction compound will be rehabilitated once construction is complete.

An area within Tarraleah Village has been set aside for a Project office. This may involve installing a prefabricated building, to be removed and the site rehabilitated at the conclusion of the Project. Where possible, the interiors of existing village buildings will be retrofitted to optimise space and minimise the need for additional prefabricated structures. Any modifications to Tarraleah Village will be minor and will maintain the heritage value of the village in accordance with Hydro Tasmania's Historic Heritage Conservation Management Plan.

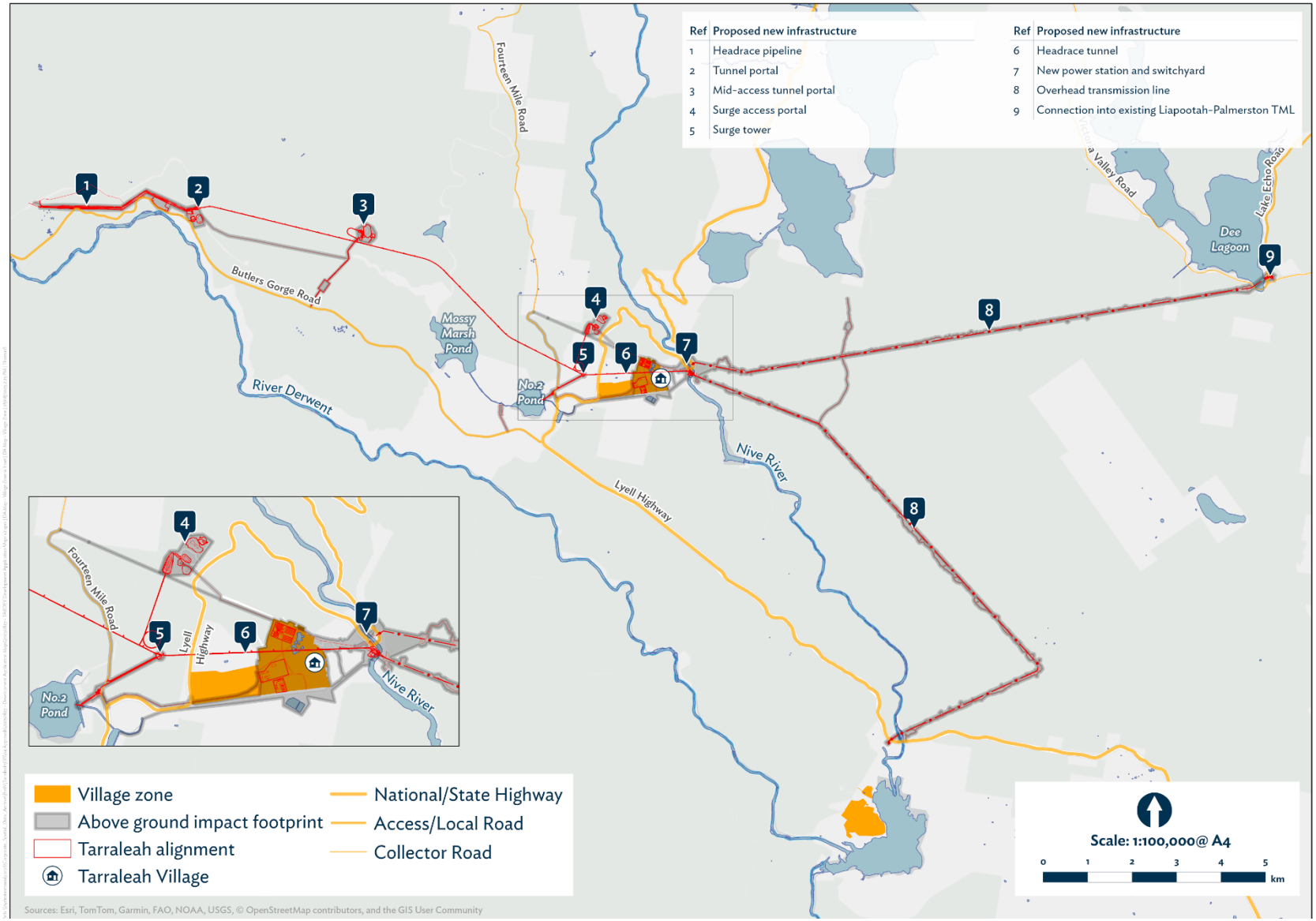



*Figure 5-1: Works within Village zone*

## 5.3.2 Clause 12.1 – Zone purpose

| ACCEPTABLE SOLUTIONS |
|---|
| The purpose of the Village Zone is: |
| 12.1.1 To provide for small rural centres with a mix of residential, community services and commercial activities. |
| 12.1.2 To provide amenity for residents appropriate to the mixed use characteristics of the zone. |
| **Assessment**<br>During construction, public access to the village will be controlled to ensure public safety and to accommodate on site workers. Though this does not align with the zone purpose the influx of workers within the area will support local services and commercial activities within the broader area. |

## 5.3.3 Clause 12.3 – Use standards

### Clause 12.3.1 – All non-residential uses

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That non-residential use:<br>(a) is compatible with the mixed use characteristics of a village; and<br>(b) does not cause unreasonable loss of amenity to adjacent sensitive uses. | |
| **A1**<br>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must be within the hours of:<br>(a) 7.00am to 9.00pm Monday to Friday;<br>(b) 8.00am to 6.00pm Saturday; and<br>(c) 9.00am to 5.00pm Sunday and public holidays. | **P1**<br>Hours of operation of a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:<br>(a) the timing, duration or extent of vehicle movements; and<br>(b) noise, lighting or other emissions. |
| **Assessment**<br>The use of the Project is classified as Utilities and is therefore excluded from this clause.<br>Nonetheless, standard hours of operation for the construction compound at Tarraleah (including vehicle movements and noise-emitting works) will be within the hours prescribed in A1 of this clause. Non-standard hours may be required in certain circumstances, including; if insufficient locally based workers are available or for the delivery and unloading of large loads where required by transport restrictions. These activities would not cause an unreasonable loss of amenity to any sensitive uses (of which there are none).<br>The Project therefore complies with A1 and can also be justified against P1 if required. | |
| **A2**<br>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must:<br>(a) be baffled so that it does not cause emission of light onto adjoining residential properties; and<br>(b) not include permanent fixed floodlighting if the site adjoins a General Residential Zone, Low Density Residential Zone or Rural Living Zone. | **P2**<br>External lighting for a use, excluding Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, used on the site must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:<br>(a) the number of proposed light sources and their intensity;<br>(b) the location of the proposed light sources;<br>(c) the topography of the site;<br>(d) the degree of screening between the light source and the sensitive use; and<br>(e) existing light sources. |
| **Assessment**<br>The use of the Project is classified as Utilities and is therefore excluded from this clause.<br>Any lighting required will be directed away from Tarraleah Village to avoid impacts on amenity. This area does not adjoin a General Residential Zone, Low Density Residential Zone, or Rural Living Zone, and therefore A2(b) is not applicable. The Project is therefore considered to comply with A2. | |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **A3**<br>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must be within the hours of:<br>(a) 7.00am to 7.00pm Monday to Friday; and<br>(b) 8.00am to 6.00pm Saturday, Sunday and public holidays. | **P3**<br>Commercial vehicle movements and the unloading and loading of commercial vehicles for a use, excluding Emergency Services, Natural and Cultural Values Management, Passive Recreation, Utilities or Visitor Accommodation, must not cause an unreasonable loss of amenity to adjacent sensitive uses, having regard to:<br>(a) the extent and timing of traffic generation;<br>(b) the dispatch of goods and materials;<br>(c) the size of commercial vehicles involved;<br>(d) noise reducing structures between vehicle movement areas and dwellings; and<br>(e) existing levels of amenity. |

**Assessment**

The use of the Project is classified as Utilities and is therefore excluded from this clause.

Commercial vehicle movements, including loading and unloading, are expected to generally occur within the times prescribed in A3. Some non-standard hours may be required for the delivery and unloading of large loads where transport restrictions apply. In such cases, vehicle movements outside the prescribed times will be minimal and cause an unreasonable loss of amenity to any sensitive uses (of which there are none).

The Project will therefore comply with P3 in the absence of A3.

| | |
|---|---|
| **A4**<br>The gross floor area of a non-residential use, excluding Visitor Accommodation, must be not more than 250m$^2$. | **P4**<br>A non-residential use, excluding Visitor Accommodation, must be at a scale and intensity consistent with the character of the area, having regard to:<br>(a) the nature and scale of the use;<br>(b) the number of employees;<br>(c) the hours of operation;<br>(d) the emissions generated by the use;<br>(e) the type and intensity of traffic generated by the use;<br>(f) the impact on the character of the surrounding area; and<br>(g) the impact on the amenity of any adjoining residential properties. |

**Assessment**

The construction compound is proposed to have a gross floor area greater than 250 m$^2$ and will therefore need to be assessed against P4.

(a) The area surrounding the Village zone is dominated by electricity infrastructure and forestry operations. The scale and intensity of the Project are therefore considered consistent with surrounding land uses.

(b) Workers will be distributed throughout the Project area. The size and scope of the construction compound will be sufficient to support the workforce required on site at any given time without overwhelming the broader area or adversely impacting members of the public who may access the site.

(c) The construction compound will predominantly operate during normal working hours (see clauses A1 and A3).

(d) Noise and light emissions from the compound during construction hours will not affect other uses within the vicinity of the Project.

(e) Traffic movements to and from the construction compound are likely to be frequent; however, this will be consistent with the expected overall increase in traffic across the Project site. Traffic controls will be implemented around the Project area to minimise disruption to non-Project road users (see Section 2.2.3).

(f) The Project area and Tarraleah more broadly are characterised by industrial infrastructure supporting energy generation, as well as forestry and agricultural practices. The construction compound and associated works are therefore considered consistent with the character of the broader area.

(g) During construction, accommodation at Tarraleah Village will not be available to the general public, and there are no adjoining residential properties.

Based on the above, works within the Village zone are considered consistent with P4.

## 5.3.4 Clause 12.4 – Development Standards for Buildings and Works

### Clause 12.4.2 – Building Height

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** The building height is compatible with the streetscape and does not cause an unreasonable loss of amenity for adjoining property | |
| **A1**<br>Building height must be not more than 8.5m | **P1**<br>Building height must be compatible with the **streetscape** and not cause an unreasonable loss of amenity to adjoining properties, having regard to:<br>(a) the topography of the site;<br>(b) the height, bulk and form of existing buildings on the site and adjoining properties;<br>(c) the bulk and form of proposed buildings;<br>(d) sunlight to habitable rooms and private open space in adjoining properties; and<br>(e) any overshadowing of adjoining properties or public places |

**Assessment**

The construction compound will exceed 8.5 m in height. As such, the proposal does not comply with A1 and must therefore be assessed against P1.

The compound building will be up to 10 m tall and located south of the Tarraleah Golf Course in the western portion of the Village zone, in a largely flat area [P1(a)].

The construction compound is considered consistent with the form and bulk of surrounding development, as it will be located near existing infrastructure such as the hilltop pipeline and surge tower on Oldina Drive, directly opposite the proposed site [P1(b)].

There are no adjoining or nearby residences, and therefore general amenity and access to sunlight from habitable rooms or public spaces will not be affected nor will it overshadow any adjoining properties or public places [P1(c-d)].

The proposal is therefore considered consistent with P1.

### Clause 12.4.3 – Setbacks

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That building setback is compatible with the streetscape and does not result in an unreasonable impact on amenity of adjoining properties. | |
| **A1**<br>Buildings must have a setback from a frontage of:<br>(a) not less than 4.5m;<br>(b) not less than existing buildings on the site; or<br>(c) not more or less than the maximum and minimum setbacks of the buildings on adjoining properties. | **P1**<br>Buildings must be sited to be compatible with the streetscape and character of development existing on established properties in the area, having regard to:<br>(a) the topography of the site;<br>(b) the setbacks of buildings on adjoining properties;<br>(c) the height, bulk and form of existing and proposed buildings;<br>(d) the appearance of proposed buildings when viewed from roads and public places adjoining the site; and<br>(e) the safety of road users. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Assessment**<br>The construction compound frontage on Oldina Drive is likely to be within the minimum setback of 4.5 m. The proposal therefore does not comply with A1 and must be assessed against P1.<br>Due to the site's topography, the compound will not be fully visible from sections of Oldina Drive and the Lyell Highway [P1(a)]. The proposal is considered consistent with setbacks on the adjoining Tarraleah Village property, as The Lodge is also located within the 4.5 m minimum setback. Apart from Tarraleah Village, there are no other buildings on adjoining properties, and therefore no additional setbacks to match [P1(b)].<br>The construction compound is considered consistent with the form and bulk of surrounding development, as it will be located near existing infrastructure such as the hilltop pipeline and surge tower on Oldina Drive, both of which also have setbacks of less than 4.5 m [P1(c-d)].<br>Additional signage and road safety infrastructure will be implemented throughout the Project area, including in the Village, to ensure the safety of both public and Project-related road users [P1(e)].<br>The Project is therefore considered consistent with P1.<br>Figures depicting infrastructure setbacks relative to cadastral boundaries are included in Appendix J. Note that the setback maps in Appendix J show only land parcels where work sites are located within 200 m of a title boundary; parcels not mapped contain no work sites within this distance. | |
| **A2**<br>Buildings must have a **setback** from side and rear boundaries of not less than:<br>(a) 3m; or<br>(b) half the wall height of the building,<br>whichever is the greater. | **P2**<br>Buildings must be sited so that there is no unreasonable loss of amenity to adjoining properties, having regard to:<br>(a) the topography of the site;<br>(b) the size, shape and orientation of the site;<br>(c) the setbacks of surrounding buildings;<br>(d) the height, bulk and form of existing and proposed buildings;<br>(e) the existing buildings and private open space areas on the site;<br>(f) sunlight to private open space and windows of habitable rooms on adjoining properties; and<br>(g) the character of development existing on established properties in the area. |
| **Assessment**<br>All works within the zone will be set back a minimum of 5 m (half the wall height of the building) from the side and rear boundaries. Therefore, the proposal is consistent with A2. | |
| **A3**<br>Air extraction, pumping, refrigeration systems, compressors or generators, excluding Residential, Visitor Accommodation, Natural and Cultural Values Management, Passive Recreation and Utilities, must have a setback from a property containing a sensitive use of not less than 10m. | **P3**<br>Air conditioning, air extraction, pumping, heating or refrigeration systems, compressors or generators, excluding Residential, Visitor Accommodation, Natural and Cultural Values Management, Passive Recreation and Utilities, within 10m of a property containing a sensitive use must be designed, located, baffled or insulated to not cause an unreasonable loss of amenity, having regard to:<br>(a) the characteristics and frequency of any emissions generated;<br>(b) the nature of the proposed use;<br>(c) the topography of the site and location of the sensitive use; and<br>(d) any mitigation measures proposed. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

**Assessment**

The use of the Project is classified as Utilities and is therefore excluded from this clause. The property does not adjoin, nor is it within the vicinity of, any other properties containing a sensitive use. A3 is therefore not applicable to the Project.

## Clause 12.4.4 – Site Coverage

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That site coverage:<br>(a) is compatible with the character of the development existing in the area; and<br>(b) provides sufficient area for private open space and landscaping | |
| **A1**<br>Site coverage must be not more that 50% | **P1**<br>Site coverage must be consistent with that existing on established properties in the area, having regard to:<br>(a) the topography of the site;<br>(b) the size and shape of the site;<br>(c) the existing buildings and any constraints imposed by existing development;<br>(d) the provision for landscaping and private open space; and<br>(e) the character of development existing on established properties in the area. |

**Assessment**

The proposed property for the construction compound (CT147038/2) has a total area of 123.4 ha. The compound will occupy no more than 20,000 $m^2$ (2 ha), resulting in a site coverage of less than 50%. The Project is therefore considered to comply with A1.

## Clause 12.4.5 – Fencing

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the height and transparency of frontage fences:<br>(a) allows the potential for mutual passive surveillance between the road and the dwelling; and<br>(b) provides reasonably consistent height and transparency. | |
| **A1**<br>No Acceptable Solution. | **P1**<br>A fence (including a free-standing wall) within 4.5m of a frontage must:<br>(a) provide for security and privacy, while allowing for passive surveillance of the road; and<br>(b) be consistent with the height and transparency of fences in the street, having regard to:<br>(i) topography of the site; and<br>(ii) traffic volumes on the adjoining road. |

**Assessment**

Given the location and nature of the site, no fencing is proposed for the construction compound within the Village zone. This clause is therefore not applicable.

### Clause 12.4.6 – Outdoor storage areas

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That outdoor storage areas for non-residential use do not detract from the appearance of the site or surrounding area. | |
| **A1**<br>Outdoor storage areas for non-residential uses, excluding for the display of goods for sale, must not be visible from any road or public open space adjoining the site. | **P1**<br>Outdoor storage areas for non-residential uses, excluding any goods for sale, must be located, treated or screened to not cause an unreasonable loss of the visual **amenity** of the area, having regard to:<br>(a) the nature of the use;<br>(b) the type of goods, materials or waste to be stored;<br>(c) the topography of the site; and<br>(d) any screening proposed. |
| **Assessment**<br>An outdoor storage area will be required at the construction compound for larger construction items, as such the Project does not meet A1 and will be assessed against P1. During design, these areas will be located away from frontages and will use the site's topography and existing vegetation to screen materials from public view [P1(d)].<br>As with the rest of the construction compound, outdoor storage will be temporary for the duration of construction, with the site returned to its current state once the Project becomes operational. The bulk and form of the storage area will be consistent with the construction compound and with surrounding infrastructure, such as the hilltop pipeline and surge towers on Oldina Drive [P1(a-c)].<br>The Project is therefore considered to comply with P1. | |

# 5.4 Utilities zone

## 5.4.1 Works in the Utilities Zone

Within the Project area, the Utilities zone covers:

- Clark Dam at Lake King William
- the eastern section of No. 2 Pond
- the Tarraleah Power Station (including the section of the Nive River where water is discharged), switchyard, hilltop water pipeline, and hillside penstocks
- a small area at the southern tip of Dee Lagoon near the intersection of Lake Echo Road and Victoria Valley Road, along the existing transmission line easement for the Liapootah to Palmerston line (northern option)
- the Liapootah Substation, where the southern option is proposed to terminate.

No works are proposed at Clark Dam as part of the Project (see Figure 5-8).

Works subject to assessment under the Utilities zone include works associated with the suction main at the eastern end of No 2 Pond, the new power station to be built on the site of the existing Tarraleah Power Station, and two sections of transmission line: at Dee Lagoon for the northern option and at Liapootah for the southern option. Concept drawings of the power station are provided in Appendix K. These drawings are conceptual only and are subject to further architectural design development.

The underground works are not subject to assessment as there will be no above-ground disturbance.

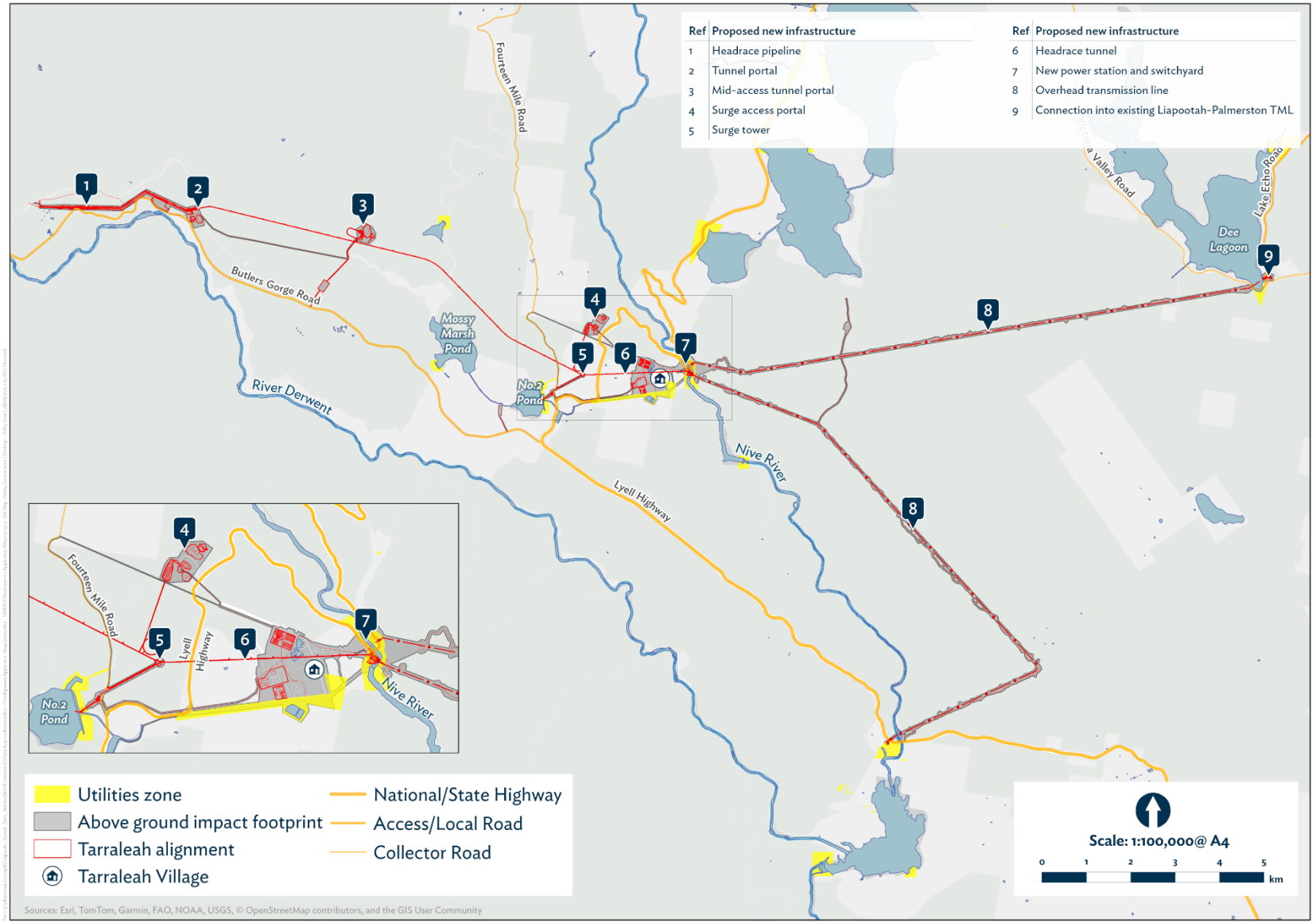



*Figure 5-2: Works within the utilities zone*

## 5.4.2 Clause 26.1 – Zone purpose

| ACCEPTABLE SOLUTIONS |
|---|
| The purpose of the Utilities Zone is:<br>26.1.1 To provide land for major utilities installations and corridors. |
| 26.1.2 To provide for other compatible uses where they do not adversely impact on the utility |
| **Assessment**<br>The proposal is consistent with the purpose of the zone, as the land will be used for the upgrade and installation of a major utility service (the power station and associated elements). |

## 5.4.3 Clause 26.3 – Use standards

This standard is not applicable, as utility works are permitted under the Utilities zone provisions. Hours of operation and external lighting requirements are excluded for utility developments.

## 5.4.4 Clause 26.4 – Development standards for buildings and works

### Clause 26.4.1 – Building height

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** To provide for a building height that:<br>(a) Is necessary for the operation of the use; and<br>(b) Minimise adverse impacts on adjoining properties and the visual character of the area | |
| **A1**<br>Building height must be not more than 12m. | **P1**<br>Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to:<br>(a) the proposed height of the building<br>(b) the bulk and form of the building<br>(c) the separation from existing uses on adjoining properties; and<br>(d) any buffers created by natural or other features |
| **Assessment**<br>The power station and transmission line will both exceed 12 m in height. As such, the proposal does not comply with A1 and must be assessed against P1.<br>An envelope height of 23 m above the existing ground level[4] has been allowed for the power station. It will be located adjacent to the existing Tarraleah Power Station on the western bank of the Nive, with no adjoining properties, in an area largely dominated by electricity infrastructure and forestry operations. The new station's bulk and form are consistent with the existing infrastructure. An architectural design response is being prepared as part of the Project's ongoing design work.<br>The height of the power station has been kept to a minimum where possible whilst allowing for sufficient space to assemble and refurbish power generating equipment such as transformers and turbines. The principal activity governing the power station's height is the lifting of the generator rotor (complete with shaft) from the assembly area into the machine pit. | |

[4] Existing ground level is measured as the level of the current switchyard. This has been used as opposed to natural ground level as the site was originally brownfield land that has been built up to accommodate the current power station and

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| This activity requires the main crane rail to be set approximately 359m AHD (where the roof is set at approximately 364m AHD to ensure sufficient moving space for the crane and to be maintained in future). A 23 m height envelope has been set to allow for variances in machinery, as determined by the EPC contractor, though it is likely final building height may be less than 23 m.<br>Visual impact on neighbouring properties will be negligible, as are no inhabited properties (both temporary and permanent) exist within the vicinity of the power station. Notwithstanding this, provisions will be implemented to ensure the power station does not detract from the existing visual amenity of the surrounding area. For example, the power station will be finished in muted tones with a light reflectance value of less than 40%, so as not to stand out against the natural background. Specific colours are yet to be determined.<br>Short sections of both transmission line options will cross the Utilities zone near Dee Lagoon (northern option) and at Liapootah (southern option). There are no adjoining properties along the transmission line corridor, which traverses land predominantly managed by STT. As both options are located adjacent to and within existing easements, the proposal is considered consistent with P1.<br>Although the transmission line and power station exceed the acceptable height solution, they are considered compatible with the overall character of the area given the existing Tarraleah hydropower scheme and transmission infrastructure.<br>The proposal is therefore considered consistent with P1. | |

## Clause 26.4.2 – Setbacks

| ACCEPTABLE SOLUTION | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That buildings setbacks are:<br>(a) compatible with the character of the surrounding area; and<br>(b) does not cause an unreasonable loss of amenity to adjoining properties. | |
| **A1**<br>Buildings, excluding a structure such as a tower, pole or similar, must have a setback from all boundaries of not less than:<br>(a) 5m; or<br>(b) an existing building on the lot | **P1**<br>Buildings, excluding a structure such as a tower, pole or similar, must be sited to not cause an unreasonable loss of amenity to adjoining properties, having regard to:<br>(a) the topography of the site<br>(b) the size, shape and orientation of the site<br>(c) the setback of existing buildings on the site and on adjoining properties<br>(d) the bulk and form of proposed buildings. |
| **Assessment**<br>The tail bay associated with the power station will be within 5m of the boundary of the power station site (CID 1297594) and the Nive (CID 964209) and as such will not meet A1, and will need to be assessed against P1.<br>The location of the tail bay is required based on the orientation and topography of the site in relation to the Nive as well for the operation of the hydropower station. Additionally, the bulk and form of the proposed structure will remain consistent with existing power infrastructure in the area, including the existing Tarraleah Power Station [P1(a-c)].<br>Both the parcels are authority land under Hydro Tasmania ownership and will therefore not create any impact to amenity on external neighbours. Furthermore, there are no other buildings in the surrounding area and therefore there is no comparable setback to both the existing and proposed setbacks at the power station site [P1(d)].<br>This clause does not apply to transmission towers or poles. Accordingly, Clause 26.4.2 A1 does not apply to the sections of transmission line that traverse the Utilities zone.<br>The proposal is considered to meet the objectives of P1 as there will not be an unreasonable loss of amenity to any adjoining properties surrounding the power station. | |

switchyard. The existing ground level is a more accurate depiction of the current state of the site and best informs infrastructure height when physically standing at the site.

| ACCEPTABLE SOLUTION | PERFORMANCE CRITERIA |
|---|---|
| Work site locations in respect of cadastral boundaries and boundary setbacks have been mapped and are included in Appendix J. Note that the setback maps included in Appendix J show only land parcels where work sites are located within 200 m of a title boundary; parcels not mapped contain no work sites within this distance. | |

### Clause 26.4.4 – Outdoor storage areas

| ACCEPTABLE SOLUTION | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That outdoor storage areas do not detract from the appearance of the site or surrounding area | |
| **A1**<br>Outdoor storage areas, excluding goods for sale, must not be visible from any road or public open space adjoining the site. | **P1**<br>Outdoor storage areas, excluding any goods for sale, must be located, treated or screened to not cause an unreasonable loss of visual amenity. |
| **Assessment**<br>There are no outdoor storage areas in the Utilities zone. Due to the constrained location of the power station site, laydown, storage, and stockpile areas for the power station during construction will be located elsewhere, outside the Utilities zone.<br>Given the site's topography, any items that may need to be stored on site to support construction will not be visible from public roads. No outdoor storage areas will be constructed on site for the Project's operation.<br>The Project is therefore consistent with A1. | |

## 5.5 Rural zone

### 5.5.1 Works within the Rural Zone

Most of the Project is located on land zoned Rural, as shown in Figure 5-3. Works include:

- Headrace pipeline and tunnel
- Permanent spoil storage stockpiles
- Access tunnels and portals
- Both transmission line options.

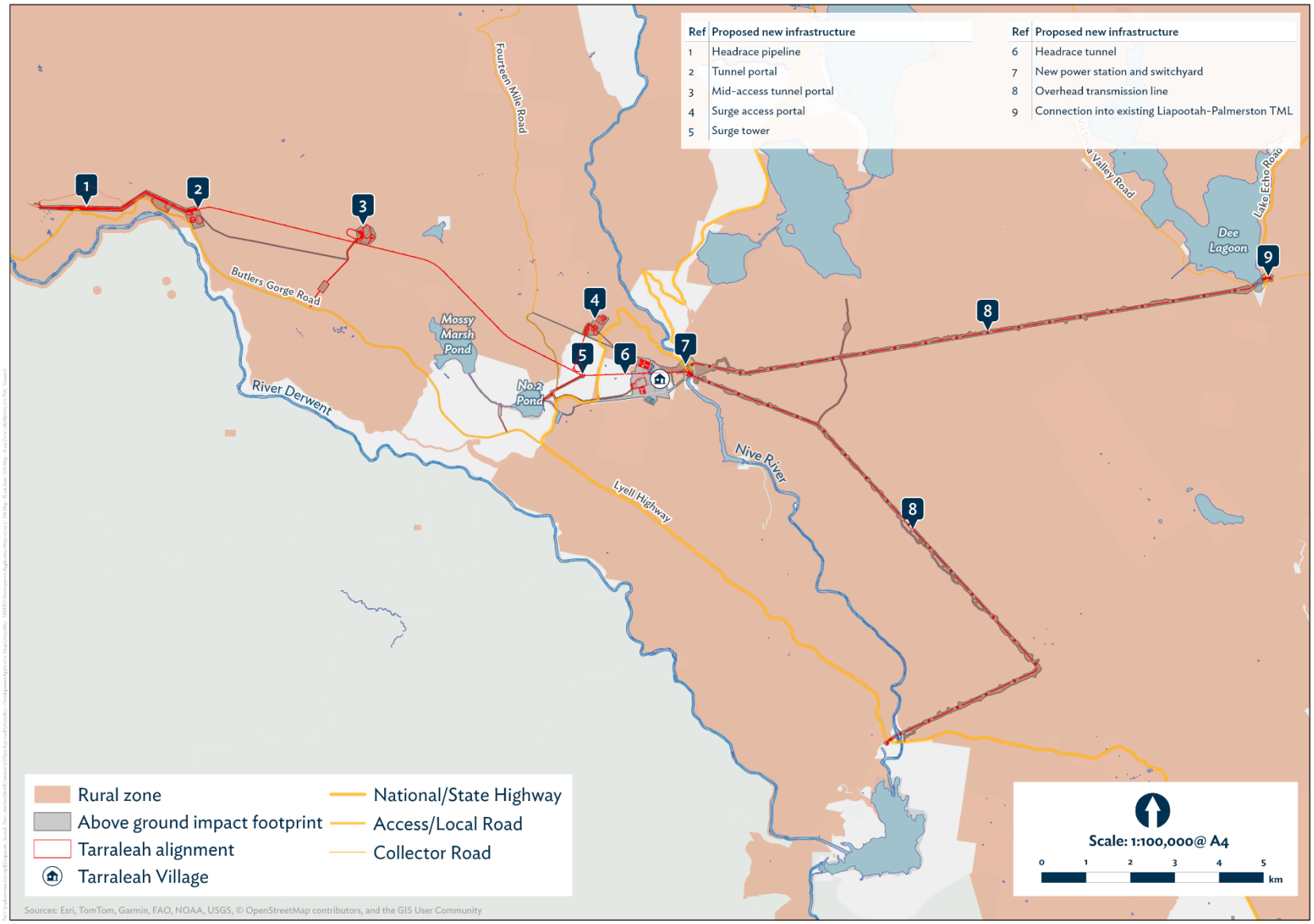



*Figure 5-3: Works within the Rural zone*

## 5.5.2 Clause 20.1 – Zone purpose

| ACCEPTABLE SOLUTIONS | |
|---|---|
| 20.1.1 | To provide for a range of use or development in a rural location:<br>(a) where agricultural use is limited or marginal due to topographical, environmental or other site or regional characteristics;<br>(b) that requires a rural location for operational reasons;<br>(c) is compatible with agricultural use if occurring on agricultural land;<br>(d) minimises adverse impacts on surrounding uses. |
| 20.1.2 | To minimise conversion of agricultural land for non-agricultural use. |
| 20.1.3 | To ensure that use or development is of a scale and intensity that is appropriate for a rural location and does not compromise the function of surrounding settlements. |

**Assessment**

The proposal is consistent with the purpose of the zone, as the development area is already limited in agricultural use due to the existing Tarraleah hydropower scheme and the environmental and topographical characteristics of the site. No agricultural land will need to be converted for the Project.

Given the size and scale of the Project, a rural location is most suitable to minimise impacts on human settlements. The Project is not located near any surrounding settlements.

## 5.5.3 Clause 20.3 – Use Standards

Clause 20.3 is not applicable as utility works are permitted under rural zone provisions.

## 5.5.4 Clause 20.4 – Development Standards for Buildings Works

The following subsection assesses the development against the relevant development standards for buildings and works.

## 5.5.5 Clause 20.4.1 – Building height

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **A1**<br>Building height must be not more than 12m. | **P1**<br>Building height must be necessary for the operation of the use and not cause an unreasonable impact on adjoining properties, having regard to:<br>(a) the proposed height of the building<br>(b) the bulk and form of the building<br>(c) the separation from existing uses on adjoining properties; and<br>(d) any buffers created by natural or other features |

**Assessment**

The transmission line towers will have a maximum height of 52 m but will average 41-46 m, therefore exceeding provisions of A1. The Project will be assessed against P1.

Given the locations of the proposed alignment options, and the co-location of both options existing transmission lines largely on land managed by STT, the bulk and form are considered consistent with adjoining uses. No unreasonable impacts are expected on adjoining properties. The existing transmission line easement will be expanded to accommodate the additional line.

The proposed transmission line is expected to be taller than the existing single circuit 110kV line which has an average structure height of approximately 16 m and are up to 18.3 m tall. The additional height of the new transmission towers/poles is required to the accommodate the vertical configuration of the double circuit to support the 220kV line.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

The double circuit configuration has been chosen over the existing single circuit configuration based on the following considerations:

- It requires a narrower easement footprint hence reducing the amount of vegetation required to be removed;
- It greatly reduces the number of structures (i.e. towers or poles) required, which will reduce the area required for access tracks and hardstand platforms for construction and maintenance; and
- Taller structures are able to safely span valleys and waterways without requiring disturbance to those areas.

Although the transmission line height exceeds the acceptable solution, it is considered consistent with the overall area given the existing Tarraleah hydropower scheme and existing transmission infrastructure.

Three proposed permanent spoil emplacement areas are located within the Rural Zone, ranging from 20 m to 40 m in height throughout the Project alignment (see Appendix K). These areas are necessary to support tunnelling works and are therefore required for construction. Adjoining properties contain no ongoing uses and, accordingly, the emplacement areas will not impact amenity to nearby residents. Notwithstanding this, the visual impact of the spoil emplacement areas has been assessed in Appendix C, which concludes that most views will be screened by vegetation. The 40 m high stockpile will be located within an existing quarry (Paddy's Quarry) and is therefore consistent with the bulk and scale of the site.

Following construction, the permanent spoil emplacement areas will remain in situ, where geoforming will be undertaken to facilitate effective rehabilitation and ensure consistency with the surrounding landscape. Ongoing management of the spoil emplacement areas, including visual impact mitigation, falls within the scope of the Project's Level 2 Activity assessment and has been addressed in detail in the Project EIS.

The proposal is therefore considered consistent with P1.

## 5.5.6 Clause 20.4.2 – Setbacks

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **A1**<br>Buildings must have a setback from all boundaries of:<br>(a) not less than 5m; or<br>(b) if the setback of an existing building is within 5m, not less than the existing building | **P1**<br>Buildings must be sited to provide adequate vehicle access and not cause an unreasonable impact on existing use on adjoining properties, having regard to:<br>(a) the proposed height of the building<br>(b) the nature of existing use on the adjoining properties<br>(c) separation from existing use on the adjoining properties; and<br>(d) any buffers created by natural or other features |

**Assessment**

Works associated with the development of portals and the headrace pipeline have the potential to sit within the prescribed 5m setback for the acceptable solution and will therefore need to be assessed against the performance criteria.

The work sites relevant to the rural zone span land that is either owned by Hydro Tasmania or Sustainable Timber Tasmania. Aside from existing hydropower infrastructure in the area, there are no other neighbouring buildings or uses that may be affected by works, as such there will not be an unreasonable impact to existing use on adjoining properties. Furthermore, adequate vehicle access will be afforded to the site by a mixture of existing and new proposed access roads.

As there will be no impact on adjoining properties as a result of the works in the rural zone, the proposal is considered to be consistent with P1.

Figures depicting work site locations relative to castral boundaries and boundary setbacks are included in Appendix J. Note that the setback maps in Appendix J show only land parcels where work sites are located within 200 m of a title boundary; parcels not mapped contain no work sites within this distance.

## 5.5.7 Clause 20.5 – Development Standards for subdivision

This standard is not applicable as there is no subdivision involved in the Project.

## 5.6 Environmental Management Zone

### 5.6.1 Works in Environmental Management Zone

Land zoned Environmental Management is associated with the Tarraleah Conservation Area, as shown in Figure 5-4.

Above-ground works include the surge tower, pump station, rising main, and a new road from the surge tower to Fourteen Mile Road (see Figure 4-1). Underground works include the headrace tunnel and an access tunnel connecting the access portal with the headrace and power tunnels.

Concept drawings for the surge tower and pump station are provided in Appendix K.

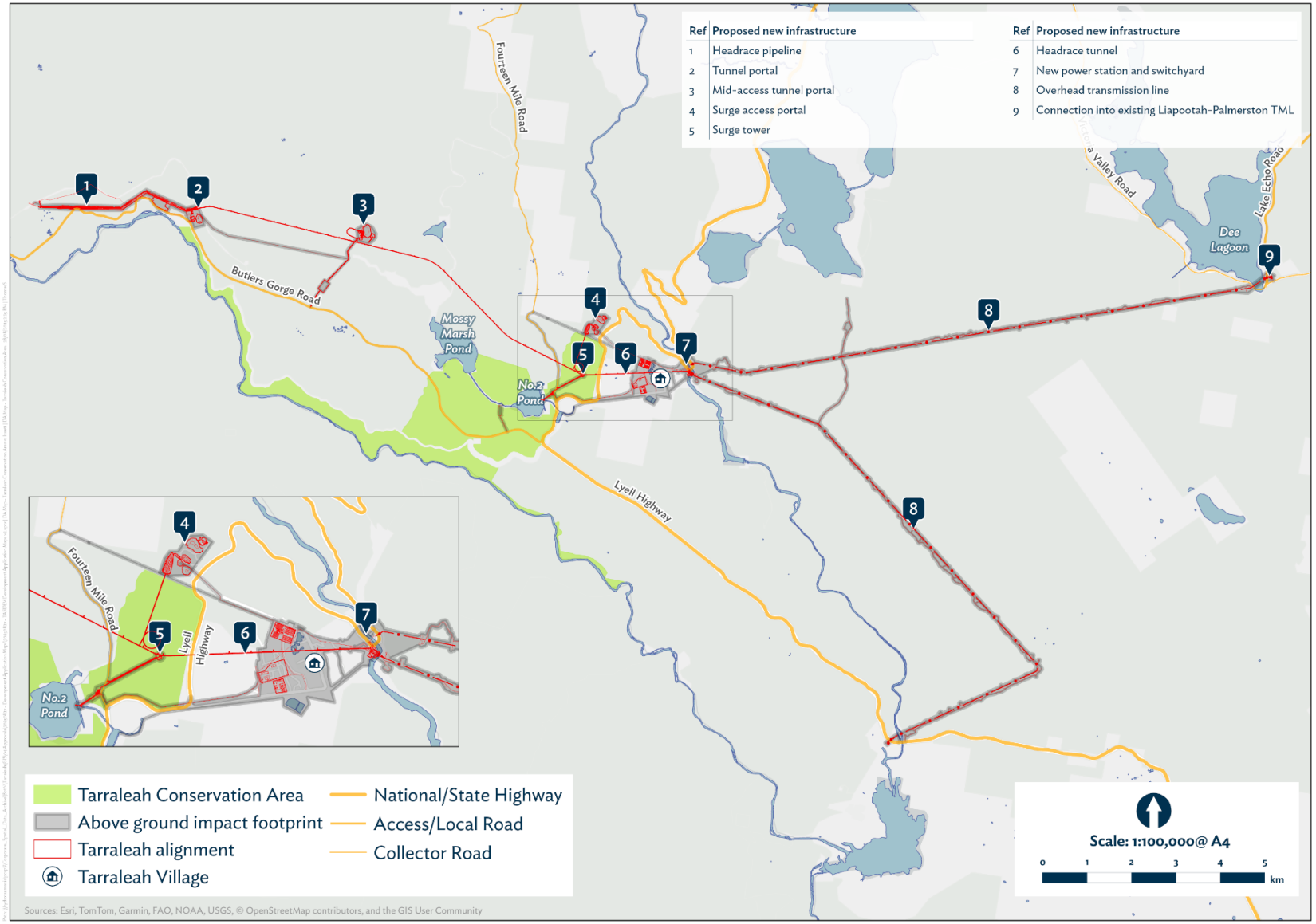



*Figure 5-4: Works within the Tarraleah Conservation area*

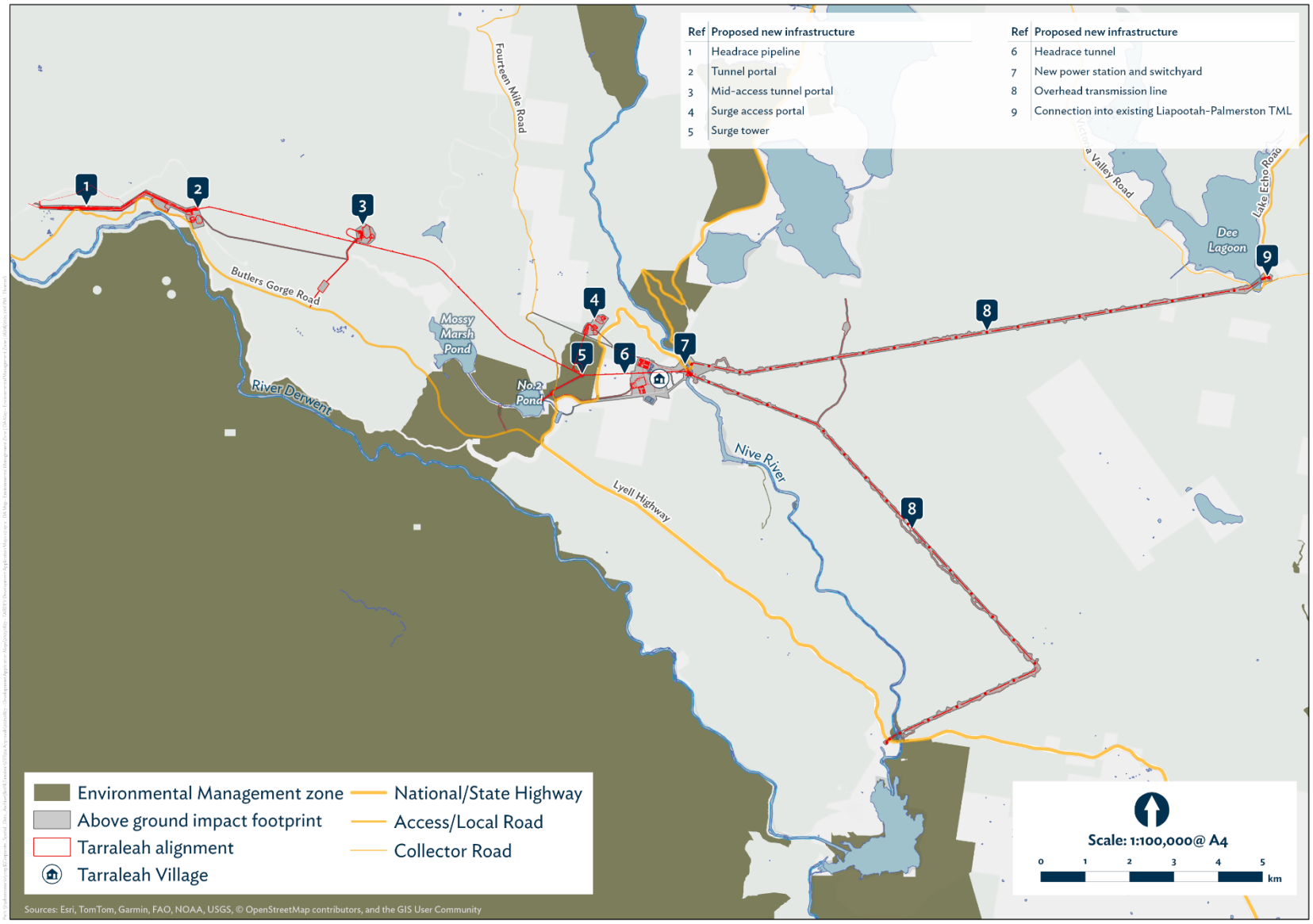



*Figure 5-5: Works within the Environmental Management zone*

## 5.6.2 Clause 23.1 – Zone purpose

| ACCEPTABLE SOLUTIONS |
|---|
| The purpose of the Environmental Management Zone is:<br>23.1.1 To provide for the protection, conservation and management of land with significant ecological, scientific, cultural or scenic value. |
| 23.1.2 To allow for compatible use or development where it is consistent with:<br>(a) the protection, conservation, and management of the values of the land; and<br>(b) applicable reserved land management objectives and objectives of reserve management plans |

**Assessment**

While the infrastructure works are not directly aligned with the purposes of the Environmental Management zone, they are considered appropriate within the overall landscape in which they will be situated.

The landscape already features an operating hydropower scheme with canals, power stations, flumes, pipelines, and other civil infrastructure. There are also existing surge towers in Tarraleah Village, recognised for their historic value, and the Lyell Highway traverses the existing canal assets.

Therefore, while there will be ecological and scenic impacts on the overall landscape, the proposal is not considered inconsistent with the character of the area.

## 5.6.3 Clause 23.3 – Use Standards

### Clause 23.3.1 – Discretionary uses

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That uses listed as Discretionary recognise and reflect the relevant values of the reserved land | |
| **A1**<br>No acceptable solution | **P1**<br>A use listed as Discretionary must be consistent with the values of the land, having regard to:<br>(a) the significance of the ecological, scientific, cultural or scenic values;<br>(b) the protection, conservation, and management of the values;<br>(c) the specific requirements of the use to operate;<br>(d) the location, intensity and scale of the use;<br>(e) the characteristics and type of the use;<br>(f) traffic and parking generation;<br>(g) any emissions and waste produced by the use;<br>(h) the measures to minimise or mitigate impacts;<br>(i) the storage and handling of goods, materials and waste; and<br>(j) the proximity of any sensitive uses. |

**Assessment**

While the scale of the works in the Tarraleah Conservation Area is significant, their location has been determined by the location of the existing Tarraleah Hydropower Scheme and the requirement for the surge tower to be higher than the elevation of Lake King William (the Project's headwaters) and in relatively close proximity to the power station (the Project's discharge point) to operate effectively. No other locations are considered suitable [P1(a)–(e)].

There will be no ongoing traffic or parking generation associated with this use, and no emissions or waste will be produced apart from routine asset maintenance and inspections [P1(f)–(g)]. Accordingly, no mitigation measures are required [P1(h)].

No permanent storage or handling of goods, materials, or waste is proposed [P1(i)].

There are no sensitive uses in proximity to the proposed works [P1(j)].

The proposal is therefore considered consistent with P1.

## 5.6.4 Clause 23.4 – Development standards for buildings and works

### Clause 23.4.1 – Development area

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the development area is:<br>(a) Compatible with the values of the site and surrounding area; and<br>(b) Minimises disturbance of the site | |
| **A1**<br>The development area must:<br>(a) be not more than 500m$^2$<br>(b) be in accordance with an authority under the *National Parks and Reserve Management Regulations 2019* granted by the Managing Authority or the Nature Conservation Act 2002; or<br>(c) be in accordance with an approval of the Director General of Lands under the *Crown Lands Act 1976* | **P1**<br>The development area must not cause an unreasonable impact on the values of the site and surrounding area, having regard to:<br>(a) the design, siting, scale and type of development;<br>(b) the operation of the use;<br>(c) the impact of the development on the values of the site and surrounding area;<br>(d) the need for the development to be located on the site;<br>(e) how any significant values are managed; and<br>(f) any protection, conservation, remediation or mitigation works. |

**Assessment**

The development area within this zone is greater than 500 m$^2$. The proposed works are therefore not consistent with A1 and must be assessed against P1.

The surge tower and associated infrastructure are consistent with the surrounding context of the Tarraleah area, which is known for its hydropower history [P1(a)]. The surge tower is necessary to control water pressure between the headrace tunnel (from Clark Dam to the surge tower) and the power tunnel (from the surge tower to the new power station). No other locations are considered suitable [P1(b)–(d)].

As the surge tower is within the Tarraleah Conservation Area, some natural values will be affected; however, no significant values have been identified [P1(e)].

Given the specific nature and siting requirements of the surge tower and supporting infrastructure, the proposal is therefore considered consistent with P1.

### Clause 23.4.2 – Building height, setback and siting

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the design and siting of buildings responds appropriately to the values of the site and surrounding area | |
| **A1**<br>Building height must:<br>(a) be not more than 6m<br>(b) be in accordance with an authority under the *National Parks and Reserve Management Regulations 2019* granted by the Managing Authority or *Nature Conservation Act 2002*; or<br>(c) be in accordance with an approval of the Director General of Lands under the *Crown Lands Act 1976*. | **P1**<br>Building height must be compatible with the values of the site and surrounding area, having regard to:<br>(a) the bulk and form of proposed buildings;<br>(b) the height, bulk and form of existing buildings;<br>(c) the topography of the site;<br>(d) the appearance when viewed from roads and public places; and<br>(e) the character of the surrounding area. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

**Assessment**

The surge tower is proposed to be up to 70 m tall and is therefore not consistent with A1(a). The proposed works in the Tarraleah Conservation Area are subject to an RAA, which will be assessed by the PWS in parallel with the EIS. The detail required by the PWS—including site plans, an assessment against the objectives of the NPRM Act and NC Act, and the extent of vegetation clearance required—is provided in Appendix E. Although an assessment has been prepared that complies with the objectives of the NPRM Act and the NC Act, the building height of the surge tower still triggers the performance criteria for this clause. The proposal has therefore been assessed against P1.

Although the infrastructure is of significant size, it is considered compatible with the surrounding Tarraleah area, given its existing use for hydroelectricity generation. There are no existing buildings [P1(a)], and the tower has been sited to take advantage of the site's topography [P1(b)]. No other locations are considered suitable for the surge tower.

The surge tower will be visible from surrounding roads and public places, including the Lyell Highway and Tarraleah Village [P1(c)]; however, the proposal is considered consistent with the values and character of the site and its surroundings, given the existing industrial uses (hydro electricity generation and forestry) of the area [P1(d)].

Other infrastructure in the Environmental Management Zone, to support the function of the surge tower, will include the pump station, surge tank and rising main. Of these, the tallest element will be the surge tank – measuring up to 22 m above the existing surface.

| A2 | P2 |
|---|---|
| Buildings must have a setback from all boundaries:<br>(a) not less than 10m<br>(b) not less than the existing building for extension<br>(c) in accordance with an authority under the *National Parks and Reserve Management Regulations 2019* granted by the Managing Authority and/or *Nature Conservation Act 2002*; or<br>(d) be in accordance with an approval of the Director-General of Lands under the *Crown Lands Act 1976*. | Buildings must be sited to be compatible with the values of the site and surrounding area, having regard to:<br>(a) the bulk and form of proposed buildings;<br>(b) the height, bulk and form of existing buildings;<br>(c) the topography of the site;<br>(d) the appearance when viewed from roads and public places;<br>(e) the retention of vegetation;<br>(f) the safety of road users; and<br>(g) the character of the surrounding area. |

**Assessment**

The suction main inlet connecting the No.2 Pond to the new pump station will cross the property boundary between CID 1156124 and CID 1297597. It is likely that the inlet will be buried under ground either side of the boundary and can meet the acceptable solution however this will be subject to the Project's final design. As such, an assessment against the performance criteria is presented.

The placement of the pump station and associated suction main inlet is required due to the location of the existing No.2 Pond as well as making use of the topography in the area to support the use of the surge tower [P2(a)]. The bulk and form of the inlet itself, where it is above ground, will be consistent with both the existing hydroelectricity infrastructure in the area as well as the new proposed infrastructure (i.e. the pump station and surge tower), hence remaining in line with the character of the area that is heavily influenced by generating infrastructure and storages [P2(b-c, g)].

Vegetation clearance will be required to accommodate the suction main inlet however, clearance has been minimised as far practicable, and the site will be subject to a rehabilitation plan once construction is complete. The intention of rehabilitation is to further ensure appropriate screening and buffers are implemented as a mitigation to visual impacts [P2(d-e)]. Vegetation clearance and visual impacts within the Environmental Management Zone (i.e. the Tarraleah Conservation Area) is discussed in detail in Appendix E.

Appropriate delineation will be put in place during project construction so that road users remain safe. Once constructed and operational, road use in the vicinity of No.2 Pond, the suction main inlet and the pump station will revert to its existing state [P2(f)].

Based on the above, the construction of the suction main inlet is considered to meet P2 - in the event it will be within the 10 m boundary setback as indicated by the acceptable solution.

Figures depicting work site locations relative to cadastral boundaries and boundary setbacks are included in Appendix J. Note that the setback maps in Appendix J show only land parcels where work sites are located within 200 m of a title boundary; parcels not mapped contain no work sites within this distance.

### Clause 23.4.3 – Exterior finish

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That exterior finishes are not prominent and blend with the character of the site and surrounding area. | |
| **A1**<br>Exterior building finishes must:<br>(a) be coloured using colours with a light reflectance value not more than 40% in dark natural tones of grey, green or brown;<br>(b) be in accordance with an authority under *National Parks and Reserve Management Regulations 2019* granted by the Managing Authority or the *Nature Conservation Act 2002*; or<br>(c) be in accordance with an approval of the Director-General of Lands under the *Crown Lands Act 1976*. | **P1**<br>Exterior building finishes must be compatible with the character of the site and surrounding area, having regard to:<br>(a) the topography of the site;<br>(b) the existing vegetation;<br>(c) the dominant colours of the vegetation and surrounding area;<br>(d) the nature of the development;<br>(e) the nature of the exterior finishes;<br>(f) the appearance when viewed from roads and public places; and<br>(g) the character of the surrounding area. |

**Assessment**

The colour of the surge tower and supporting infrastructure is yet to be determined; however, muted tones achieving a light reflectance value of 40% or less will be required. This commitment will be incorporated into Hydro Tasmania's binding contractor requirements and with permit to ensure compliance with Clause 23.4.3.

The proposal will therefore be consistent with A1(a).

### Clause 23.4.4 – Vegetation management

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the site contributes to the values of the surrounding area by restricting vegetation removal. | |
| **A1**<br>Building and works must:<br>(a) be located on land where the native vegetation cover has been lawfully removed; or<br>(b) be in accordance with an authority under *National Parks and Reserve Management Regulations 2019* granted by the Managing Authority or the *Nature Conservation Act 2002*. | **P1**<br>Building and works must be located to minimise native vegetation removal and the impact on values of the site and surrounding area, having regard to:<br>(a) the extent of native vegetation to be removed;<br>(b) any proposed remedial, mitigation or revegetation measures;<br>(c) provision for native habitat for native fauna;<br>(d) the management and treatment of the balance of the site or native vegetation areas; and<br>(e) the type, size and design of development. |

**Assessment**

Vegetation removal associated with the construction of the surge tower will be assessed by PWS as part of the RAA process, in parallel with the EIS assessment. Information prepared for assessment by PWS is provided in Appendix E.

It is considered that works within the Environmental Management Zone will be in accordance with the objectives of the NPRM Act and associated regulations. The proposal is therefore consistent with A1(b).

## 5.7 Recreation Zone

### 5.7.1 Works within the Recreation Zone

The Recreation Zone is associated with the Tarraleah Golf Course, located west of Tarraleah Village and east of the Tarraleah Conservation Area, as shown in Figure 5-6.

There are no above-ground works within this zone. The only works traversing the area are associated with the power tunnel, which will be underground.

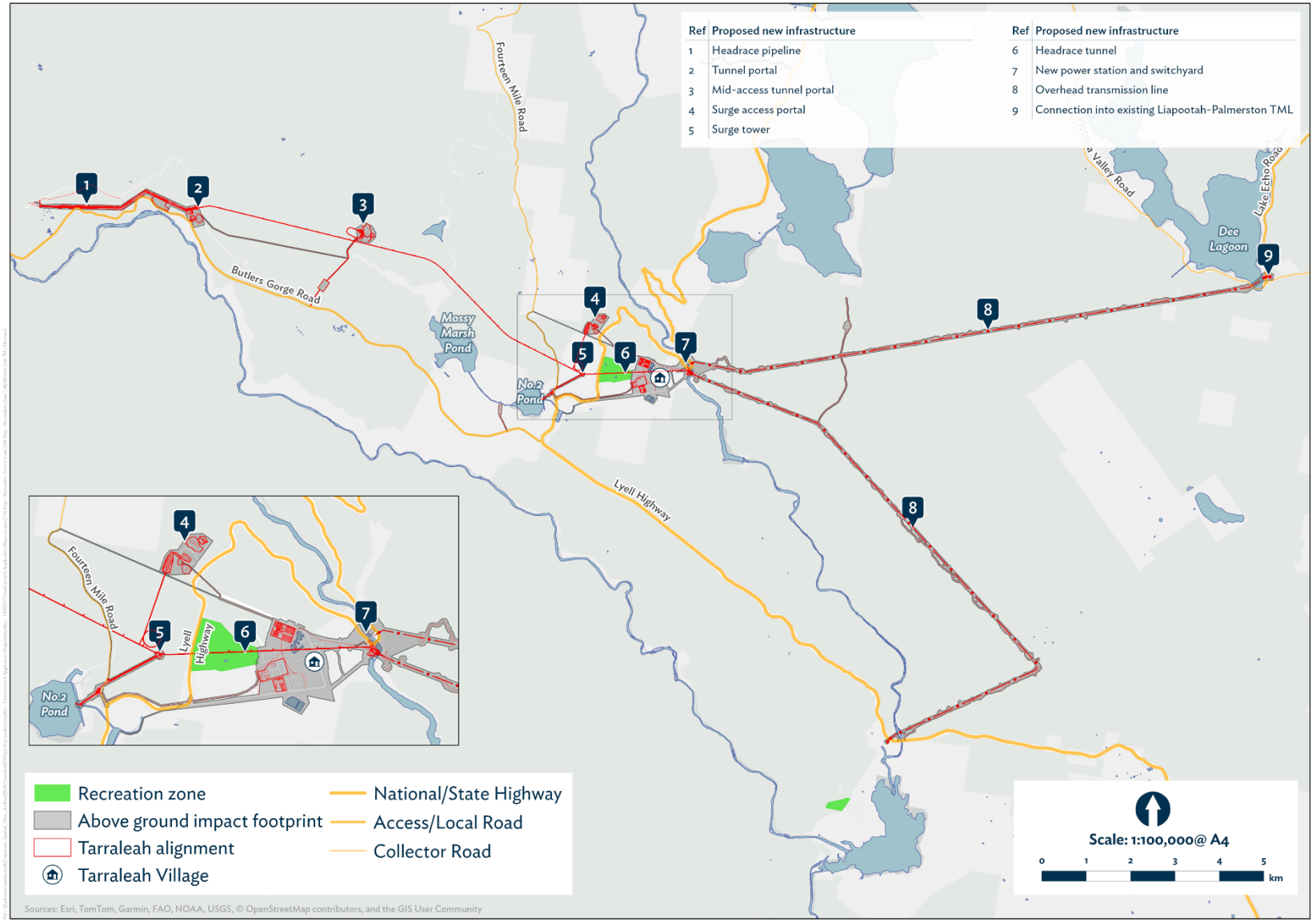



*Figure 5-6: Works within Recreation zone*

### 5.7.2 Clause 28.1 – Zone purpose

| CLAUSE 28.1 – ZONE PURPOSE | |
|---|---|
| The purpose of the Recreation Zone is: | |
| 28.1.1 | To provide for the active and organised recreational use and development ranging from small community facilities to major sporting facilities |
| 28.1.2 | To provide for complementary uses that do not impact adversely on the recreational use of the land |
| 28.1.3 | To ensure that new major sporting facilities do not cause unreasonable impacts on adjacent sensitive uses |

**Assessment**

The works within this zone do not impact the purpose of the Recreation zone, as they will not affect any above-ground activities.

Temporary disturbance to the recreational use of the Tarraleah Golf Course may occur during construction; however, appropriate consultation with members, users of the golf course, and the general public will be undertaken in advance of any disturbances or closures.

### 5.7.3 Clause 28.3 – Use standards

Clause 28.3.1 is not relevant as the use is not a sports or recreation discretionary use.

### 5.7.4 Clause 28.4 – Development standards for buildings and works

Clause 28.4.1 'Building height, setback and siting' and Clause 28.4.2 'Outdoor storage areas' are not relevant as there are no aboveground works associated with works in this zone.

# 5.8 Parking and Sustainable Transport Code

## 5.8.1 Clause 2.5 – Use Standards

### Clause 2.5.1 – Car parking numbers

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That an appropriate level of car parking spaces are provided to meet the needs of the use. | |
| **A1**<br>The number of on-site car parking spaces must be no less than the number specified in Table C2.1 [of the TPS], less the number of car parking spaces that cannot be provided due to the site including container refund scheme space, excluding if:<br>(a) the site is subject to a parking plan for the area adopted by council, in which case parking provision (spaces or cash-in-lieu) must be in accordance with that plan;<br>(b) the site is contained within a parking precinct plan and subject to Clause C2.7;<br>(c) the site is subject to Clause C2.5.5; or<br>(d) it relates to an intensification of an existing use or development or a change of use where:<br>(i) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 [of the TPS] is greater than the number of car parking spaces specified in Table C2.1 [of the TPS] for the proposed use or development, in which case no additional on-site car parking is required; or<br>(ii) the number of on-site car parking spaces for the existing use or development specified in Table C2.1 [of the TPS] is less than the number of car parking spaces specified in Table C2.1 [of the TPS] for the proposed use or development, in which case on-site car parking must be calculated as follows:<br>• N = A + (C- B)<br>• N = Number of on-site car parking spaces required<br>• A = Number of existing on site car parking spaces<br>• B = Number of on-site car parking spaces required for the existing use or development specified in Table C2.1 [of the TPS]<br>• C= Number of on-site car parking spaces required for the proposed use or development specified in Table C2.1 [of the TPS]. | **P1**<br>The number of on-site car parking spaces for uses, excluding dwellings, must meet the reasonable needs of the use, having regard to:<br>(a) the availability of off-street public car parking spaces within reasonable walking distance of the site;<br>(b) the ability of multiple users to share spaces because of:<br>(i) variations in car parking demand over time; or<br>(ii) efficiencies gained by consolidation of car parking spaces;<br>(c) the availability and frequency of public transport within reasonable walking distance of the site;<br>(d) the availability and frequency of other transport alternatives;<br>(e) any site constraints such as existing buildings, slope, drainage, vegetation and landscaping;<br>(f) the availability, accessibility and safety of on-street parking, having regard to the nature of the roads, traffic management and other uses in the vicinity;<br>(g) the effect on streetscape; and<br>(h) any assessment by a suitably qualified person of the actual car parking demand determined having regard to the scale and nature of the use and development.<br>**P1.2**<br>The number of car parking spaces for dwellings must meet the reasonable needs of the use, having regard to:<br>(a) the nature and intensity of the use and car parking required;<br>(b) the size of the dwelling and the number of bedrooms; and<br>(c) the pattern of parking in the surrounding area. |
| **Assessment**<br>As the Project use class is Utilities, there is no parking requirement. The Project therefore complies with A1.<br>The Project will, however, provide sufficient parking for vehicles at the power station and pump station, in accordance with Hydro Tasmania's operational requirements. Parking will be designed in accordance with Australian Standard AS 2890 – Parking Facilities, Parts 1–6. | |

## Clause 2.5.2 – Bicycle parking numbers

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That an appropriate level of bicycle parking spaces are provided to meet the needs of the use. | |
| **A1**<br>Bicycle parking spaces must:<br>(a) be provided on the site or within 50m of the site; and<br>(b) be no less than the number specified in Table C2.1 [of the TPS]. | **P1**<br>Bicycle parking spaces must be provided to meet the reasonable needs of the use, having regard to:<br>(a) the likely number of users of the site and their opportunities and likely need to travel by bicycle; and<br>(b) the availability and accessibility of existing and any planned parking facilities for bicycles in the surrounding area. |

**Assessment**

As the Project use class is Utilities, there is no bicycle parking requirement. The Project therefore complies with A1(b).

## Clause 2.5.3 – Motorcycle parking numbers

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the appropriate level of motorcycle parking is provided to meet the needs of the use. | |
| **A1**<br>The number of on-site motorcycle parking spaces for all uses must:<br>(a) be no less than the number specified in Table C2.4 [of the TPS]; and<br>(b) if an existing use or development is extended or intensified, the number of on-site motorcycle parking spaces must be based on the proposed extension or intensification, provided the existing number of motorcycle parking spaces is maintained | **P1**<br>Motorcycle parking spaces for all uses must be provided to meet the reasonable needs of the **use**, having regard to:<br>(a) the nature of the proposed use and development;<br>(b) the topography of the site;<br>(c) the location of existing buildings on the site;<br>(d) any constraints imposed by existing development; and<br>(e) the availability and accessibility of motorcycle parking spaces on the street or in the surrounding area. |

**Assessment**

As the Project use class is Utilities, there is no car parking requirement and therefore no motorcycle parking requirement. The Project therefore complies with A1(a).

### Clause 2.5.4 – Loading bays

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That adequate access for goods delivery and collection is provided, and to avoid unreasonable loss of amenity and adverse impacts on traffic flows. | |
| **A1**<br>A loading bay must be provided for uses with a floor area of more than 1000m$^2$ in a single occupancy. | **P1**<br>Adequate space for loading and unloading of vehicles must be provided, having regard to:<br>(a) the type of vehicles associated with the use;<br>(b) the nature of the use;<br>(c) the frequency of loading and unloading;<br>(d) the location of the site;<br>(e) the nature of traffic in the surrounding area;<br>(f) the area and dimensions of the site; and<br>(g) the topography of the site;<br>(h) the location of existing buildings on the site; and<br>(i) any constraints imposed by existing development. |

**Assessment**

As the Project use class is Utilities, there is no loading bay requirement. The Project therefore complies with A1; however, loading bays will be provided as required during construction and operation.

## 5.8.2 Clause 2.6 – Development standards for buildings and works

### Clause 2.6.1 – Construction of parking areas

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That parking areas are constructed to an appropriate standard. | |
| **A1**<br>All parking, access ways, manoeuvring and circulation spaces must:<br>(a) be constructed with a durable all weather pavement;<br>(b) be drained to the public stormwater system, or contain stormwater on the site; and<br>(c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement. | **P1**<br>All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to:<br>(a) the nature of the use;<br>(b) the topography of the land;<br>(c) the drainage system available;<br>(d) the likelihood of transporting sediment or debris from the site onto a road or public place;<br>(e) the likelihood of generating dust; and<br>(f) the nature of the proposed surfacing. |

**Assessment**

All parking, accessways, manoeuvring areas, and circulation spaces will be constructed with a durable all-weather pavement surface (spray seal or similar) in the Utilities Zone (power station site) and Village Zone (Tarraleah village), and drained to the public stormwater system. The pump station will also be sealed.

The Project therefore complies with A1.

## Clause 2.6.2 – Design and layout of parking areas

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That parking areas are designed and laid out to provide convenient, safe and efficient parking. | |
| **A1.1**<br>Parking, access ways, manoeuvring and circulation spaces must either:<br>(a) comply with the following:<br>(b) comply with Australian Standard AS 2890- Parking facilities, Parts 1-6.<br>**A1.2**<br>Parking spaces provided for use by persons with a disability must satisfy the following:<br>(a) be located as close as practicable to the main entry point to the building;<br>(b) be incorporated into the overall car park design; and<br>(i) have a gradient in accordance with Australian Standard AS 2890 - Parking facilities, Parts 1-6;<br>(ii) provide for vehicles to enter and exit the site in a forward direction where providing for more than 4 parking spaces;<br>(iii) have an access width not less than the requirements in Table C2.2 [of the TPS];<br>(iv) have car parking space dimensions which satisfy the requirements in Table C2.3 [of the TPS];<br>(v) have a combined access and manoeuvring width adjacent to parking spaces not less than the requirements in Table C2.3 [of the TPS] where there are 3 or more car parking spaces;<br>(vi) have a vertical clearance of not less than 2.1m above the parking surface level; and<br>(vii) excluding a single dwelling, be delineated by line marking or other clear physical means; or<br>(c) be designed and constructed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009 Parking facilities, Off-street parking for people with disabilities. | **P1**<br>circulation spaces must be designed and readily identifiable to provide convenient, safe and efficient parking, having regard to:<br>(a) the characteristics of the site;<br>(b) the proposed slope, dimensions and layout;<br>(c) useability in all weather conditions;<br>(d) vehicle and pedestrian traffic safety;<br>(e) the nature and use of the development;<br>(f) the expected number and type of vehicles;<br>(g) the likely use of the parking areas by persons with a disability;<br>(h) the nature of traffic in the surrounding area;<br>(i) the proposed means of parking delineation; and<br>(j) the provisions of Australian Standard AS 2890.1:2004 - Parking facilities, Part 1: Off-street car parking and AS 2890.2 -2002 Parking facilities, Part 2: Off¬-street commercial vehicle facilities. |
| **Assessment**<br>The Project's parking, access ways, manoeuvring areas, and circulation spaces will comply with Australian Standard AS 2890 – Parking Facilities, Parts 1–6, per the recommendations of Appendix B and will therefore comply with A1.1. | |

## Clause 2.6.3 – Number of accesses for vehicles

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That:<br>(a) access to land is provided which is safe and efficient for users of the land and all road network users, including but not limited to drivers, passengers, pedestrians and cyclists by minimising the number of vehicle accesses;<br>(b) accesses do not cause an unreasonable loss of amenity of adjoining uses; and<br>(c) the number of accesses minimise impacts on the streetscape. | |
| **A1**<br>The number of accesses provided for each frontage must:<br>(a) be no more than 1; or<br>(b) no more than the existing number of accesses,<br>whichever is the greater. | **P1**<br>The number of accesses for each frontage must be minimised, having regard to:<br>(a) any loss of on-street parking; and<br>(b) pedestrian safety and amenity;<br>(c) traffic safety;<br>(d) residential amenity on adjoining land; and<br>(e) the impact on the streetscape. |
| **Assessment**<br>As specific sites provide no more than one access, or, where they already exist, provide no new accesses off State or Council owned roads, the Project complies with A1. | |

## Clause 2.6.5 – Pedestrian access

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective**: That pedestrian access within parking areas is provided in a safe and convenient manner. | |
| **A1.1**<br>Uses that require 10 or more car parking spaces must:<br>(a) have a 1m wide footpath that is separated from the access ways or parking aisles, excluding where crossing access ways or parking aisles, by:<br>(i) a horizontal distance of 2.5m between the edge of the footpath and the access way or parking aisle; or<br>(ii) protective devices such as bollards, guard rails or planters between the footpath and the access way or parking aisle; and<br>(b) be signed and line marked at points where pedestrians cross access ways or parking aisles.<br>**A1.2**<br>In parking areas containing accessible car parking spaces for use by persons with a disability, a footpath having a width not less than 1.5m and a gradient not steeper than 1 in 14 is required from those spaces to the main entry point to the building. | **P1**<br>Safe and convenient pedestrian access must be provided within parking areas, having regard to:<br>(a) the characteristics of the site;<br>(b) the nature of the use;<br>(c) the number of parking spaces;<br>(d) the frequency of vehicle movements;<br>(e) the needs of persons with a disability;<br>(f) the location and number of footpath crossings;<br>(g) vehicle and pedestrian traffic safety;<br>(h) the location of any access ways or parking aisles; and<br>(i) any protective devices proposed for pedestrian safety |
| **Assessment**<br>As car parks will be designed in accordance with the Acceptable Solution of C2.6.5, the Project complies with A1.1.<br>A DDA accessible space will be provided at the power station. The shared space provided at the site will open directly on to a personal access door, thus providing a footpath width exceeding 1.5m. As such, the power station site complies with A1.2. | |

## Clause 2.6.6 – Loading Bays

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the area and dimensions of loading bays are adequate to provide safe and efficient delivery and collection of goods. | |
| **A1**<br>The area and dimensions of loading bays and access way areas must be designed in accordance with *Australian Standard AS 2890.2–2002, Parking facilities, Part 2: Off-street commercial vehicle facilities, for the type of vehicles likely to use the site*. | **P1**<br>Loading bays must have an area and dimensions suitable for the use, having regard to:<br>(a) the types of vehicles likely to use the site;<br>(b) the nature of the use;<br>(c) the frequency of loading and unloading;<br>(d) the area and dimensions of the site;<br>(e) the topography of the site;<br>(f) the location of existing buildings on the site; and<br>(g) any constraints imposed by existing development. |

**Assessment**

Any loading bays required will be designed in accordance with Australian Standard AS 2890 – Parking Facilities, Parts 1–6 and will therefore comply with A1.

| | |
|---|---|
| **A2**<br>The type of commercial vehicles likely to use the site must be able to enter, park and exit the site in a forward direction in accordance with *Australian Standard AS 2890.2 – 2002, Parking Facilities, Part 2: Parking facilities - Off-street commercial vehicle facilities.* | **P2**<br>Access for commercial vehicles to and from the **site** must be safe, having regard to:<br>(a) the types of vehicles associated with the use;<br>(b) the nature of the use;<br>(c) the frequency of loading and unloading;<br>(d) the area and dimensions of the site;<br>(e) the location of the site and nature of traffic in the area of the site;<br>(f) the effectiveness or efficiency of the surrounding road network; and<br>(g) site constraints such as existing buildings, slope, drainage, vegetation, parking and landscaping |

**Assessment**

As heavy vehicles will be required to reverse into the No. 2 Pump Station loading bays, the development cannot comply with A2 as they will be unable to exit the site in a forward direction. The development does, however, satisfy the requirements of P2 as follows:

(a) Vehicles up to the size of a 19m semi-trailer are expected to use the site, however, will reverse into the site under traffic management.
(b) Heavy vehicles travelling to and from the site are expected to be infrequent
(c) Loading and unloading within the loading bay is expected to occur infrequently
(d) The site is large, however the building is situated towards Fourteen Mile Road
(e) The site gently grades towards Fourteen Mile Road
(f) No buildings exist on the site; and
(g) No constraints are imposed by existing development.

It is noted that traffic volumes on Fourteen Mile Road are low. Combined with the infrequent delivery schedule and rare occasions in which a heavy vehicle will need to access the pump station, the impact on the safety and efficient use of Fourteen Mile Road is expected to be low.

## Clause 2.6.8 – Siting of parking and turning areas

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That the siting of vehicle parking and access facilities in an Inner Residential Zone, Village Zone, Urban Mixed **Use** Zone, Local Business Zone, General Business Zone or Central Business Zone does not cause an unreasonable visual impact on **streetscape** character or loss of **amenity** to **adjoining** properties. | |
| **A1**<br>Within an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone or General Business Zone, parking spaces and vehicle turning areas, including garages or covered parking areas must be located behind the building line of buildings, excluding if a parking area is already provided in front of the building line. | **P1**<br>Within an Inner Residential Zone, Village Zone, Urban Mixed Use Zone, Local Business Zone or General Business Zone, parking spaces and vehicle turning areas, including garages or covered parking areas, may be located in front of the building line where this is the only practical solution and does not cause an unreasonable loss of amenity to adjoining properties, having regard to:<br>(a) topographical or other site constraints;<br>(b) availability of space behind the building line;<br>(c) availability of space for vehicle access to the side or rear of the property;<br>(d) the gradient between the front and the rear of existing or proposed buildings;<br>(e) the length of access or shared access required to service the car parking;<br>(f) the location of the access driveway at least 2.5m from a window of a habitable room of a dwelling;<br>(g) the visual impact of the vehicle parking and access on the site;<br>(h) the streetscape character and amenity;<br>(i) the nature of the zone in which the site is located and its preferred uses; and<br>(j) opportunities for passive surveillance of the road. |
| **Assessment**<br>Should car parking be required at Tarraleah Village, it will be located behind the building line and will therefore comply with A1. | |

# 5.9 Road and Railway Assets Code

## 5.9.1 Clause 3.5 – Use Standards

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** To minimise any adverse effects on the safety and efficiency of the road or rail network from vehicular traffic generated from the site at an existing or new vehicle crossing or level crossing or new junction. | |
| **A1.1**<br>For a category 1 road or a limited access road, vehicular traffic to and from the site will not require:<br>(a) a new junction;<br>(b) a new vehicle crossing; or<br>(c) a new level crossing.<br>**A1.2**<br>For a road, excluding a category 1 road or a limited access road, written consent for a new junction, vehicle crossing, or level crossing to serve the use and development has been issued by the road authority.<br>**A1.3**<br>For the rail network, written consent for a new private level crossing to serve the use and development has been issued by the rail authority.<br>**A1.4**<br>Vehicular traffic to and from the site, using an existing vehicle crossing or private level crossing, will not increase by more than:<br>(a) the amounts in Table C3.1 [of the TPS]; or<br>(b) allowed by a licence issued under Part IVA of the Roads and Jetties Act 1935 in respect to a limited access road.<br>**A1.5**<br>Vehicular traffic must be able to enter and leave a major road in a forward direction. | **P1**<br>Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:<br>(a) any increase in traffic caused by the use;<br>(b) the nature of the traffic generated by the use;<br>(c) the nature of the road;<br>(d) the speed limit and traffic flow of the road;<br>(e) any alternative access to a road;<br>(f) the need for the use;<br>(g) any traffic impact assessment; and<br>(h) any advice received from the rail or road authority. |

**Assessment**

As the Project will increase vehicular traffic during construction by more than the amounts specified in Table C3.1 of the TPS, it does not comply with the Acceptable Solution. An assessment against the performance criteria is provided below:

a) As outlined in Section 5.1 of Appendix B, all intersections and accesses will operate at LOS A (minimal queuing and delays) during AM and PM peak hours.

b) Traffic generated during construction will operate under relevant permits and restrictions. Most construction vehicles are classified as general access vehicles. Intersections and accesses, where necessary and viable, will be modified to accommodate heavy vehicles.

c) Where practicable, the Project will use existing accesses to public roads that are currently, or have previously been, used for similar construction and operational activities. Due to existing road constraints and tourism traffic, vehicles already travel more slowly than the Tasmanian rural default speed limit of 100 km/h. Any new roads or road upgrades will remain consistent with existing road conditions i.e. maintaining similar speed limits or lower.

d) The Lyell Highway near the Project area generally operates below the 100 km/h rural default speed limit. Heavy vehicles are expected to travel more slowly through Tarraleah, potentially slowing light vehicles travelling between Hobart and Tasmania's West Coast. However, as the distance between the proposed Power Station and Butlers Gorge Road is only 6.5 km, the impact of slower travel will be minimal.

e) The Project will use existing accesses to public roads. No suitable alternative access is available.

f) The Project is of national significance, aligning with Tasmania's Renewable Energy Target. It will inject money into Tasmania's economy, create local jobs, and improve energy security.

g) As determined in Appendix B, the road network during both construction and operation is expected to function with limited queuing and delays at intersections, and only minor impacts on the speed of through vehicles. With the recommendations of the TIA (Appendix B) implemented, a safe and efficient road network is anticipated.

h) Advice from the Department of State Growth has been sought.

The Project will also comply with A1.5, as vehicles will be able to enter and leave the Lyell Highway in a forward direction.

### 5.9.2 Clause 3.6 – Development standards

The development standard for the Road and Railway Assets Code is not applicable to the Project as the standard is applied to habitable buildings for sensitive uses within a road or railway attenuation area—none of which is relevant to the area or the Project.

## 5.10 Electricity Transmission Infrastructure Protection Code

Sections of the Electricity Transmission Infrastructure Protection overlay run across the Project area, as shown in Figure 5-7; however, as the Project involves the use and development of electricity infrastructure, it is exempt from this code under C4.4.1 of the TPS.

Further assessment against this code is therefore not required as part of this DA.

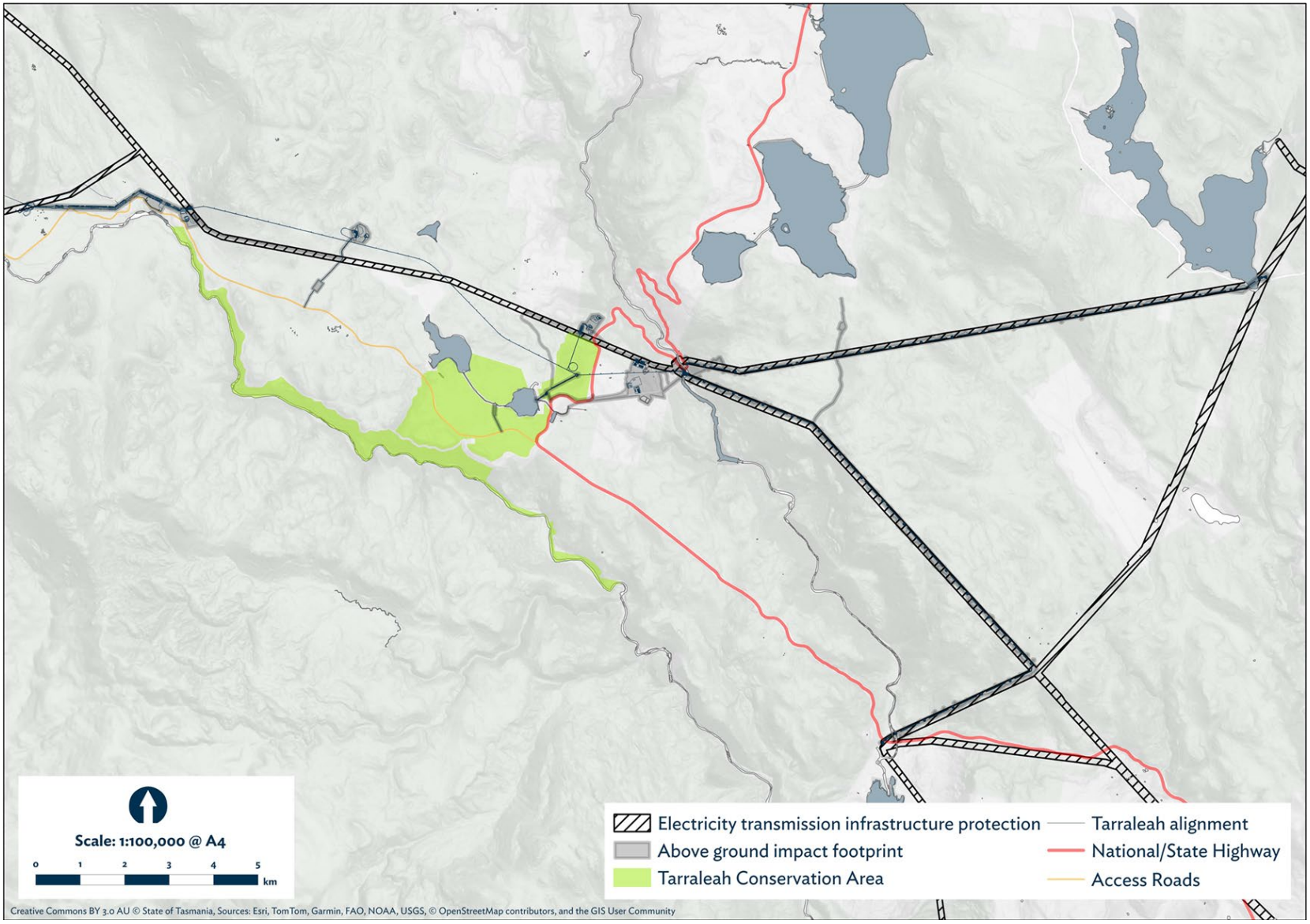



*Figure 5-7: Electricity transmission infrastructure protection code overlay*

## 5.11 Natural assets code

The Tasmanian EPA has determined that, with the exception of the transmission line, the Project constitutes a Level 2 activity under the EMPC Act. As such, the transmission line options are subject to assessment against the Natural Assets Code. A detailed assessment of the Project's transmission line options against the Natural Assets Code is provided in Appendix A1 and the Project's terrestrial and aquatic ecology assessments in Appendix A and Appendix F, respectively.

An appraisal against the relevant asset codes – C7.6.1 and C7.6.2 – is provided below.

### 5.11.1 Clause 7.6 – Development Standards for buildings and works

#### Clause 7.6.1 – Buildings and works within a waterway and coastal protection area or a future coastal refugia area

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That buildings and works within a waterway and coastal protection area or future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets. | |
| **A1**<br>Buildings and works within a waterway and coastal protection area must:<br>(a) be within a building area on a sealed plan approved under this planning scheme;<br>(b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5m in width; or<br>(c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date | **P1.1**<br>Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to:<br>(a) impacts caused by erosion, siltation, sedimentation and runoff;<br>(b) impacts on riparian or littoral vegetation;<br>(c) maintaining natural streambank and streambed condition, where it exists;<br>(d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;<br>(e) the need to avoid significantly impeding natural flow and drainage;<br>(f) the need to maintain fish passage, where known to exist;<br>(g) the need to avoid land filling of wetlands;<br>(h) the need to group new facilities with existing facilities, where reasonably practical;<br>(i) minimising cut and fill;<br>(j) building design that responds to the particular size, shape, contours or slope of the land;<br>(k) minimising impacts on coastal processes, including sand movement and wave action;<br>(l) minimising the need for future works for the protection of natural assets, infrastructure and property;<br>(m) the environmental best practice guidelines in the Wetlands and Waterways Works Manual; and<br>(n) the guidelines in the Tasmanian Coastal Works Manual.<br>**P1.2**<br>Buildings and **works** within the spatial extent of tidal waters must be for a **use** that relies upon a coastal location to fulfil its purpose, having regard to:<br>(a) the need to access a specific resource in a coastal location;<br>(b) the need to operate a marine farming shore facility;<br>(c) the need to access infrastructure available in a coastal location;<br>(d) the need to service a marine or coastal related activity;<br>(e) provision of essential utility or marine infrastructure; or<br>(f) provisions of open space or for marine-related educational, research, or recreational facilities. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

**Assessment**

Construction of either transmission option will include works within a waterway protection area that are not within a building area on a sealed plan approved under the TPS and as such do not meet A1. An assessment against P1.1 and P1.2 is provided below.

**P1.1**

(a) **Northern transmission option:** Construction has the potential to cause minor erosion, sedimentation and runoff in waterway protection areas predominately through ground disturbing activities associated with establishment of tower pads and upgrading access tracks. Four tower pads (T8, T24, T29 and T30-34) partially intersect the waterway protection area whilst three sections of access track (T8 to T9, T15 to T16 and T24 to 25) that will be upgraded are partly located within the waterway protection area.

**Southern transmission option:** construction has the potential to cause minor erosion, sedimentation and runoff in waterway protection areas also predominately through ground disturbing activities associated with establishment of pole pads and new and upgraded access tracks. Four pole pads (TP1, TP21, TP22 and TP45) will wholly or partially intersect the waterway protection area whilst five sections of access track (TP21 to TP22, TP21 to TP22, TP38 to TP39 and upgraded access to TP44 and TP45) are partly located within the waterway protection area.

Potential erosion, sedimentation and runoff impacts associated with the new transmission line will be mitigated through application of Mitigation Measures described in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measures:

- *Prior to commencing construction an Erosion and Sediment Control Plan (ESCP) will be prepared by a suitably qualified professional, as defined in the IECA Australasia Position Statement – Definition of a Suitably Qualified Professional (Nov 2023). The ESCP will be developed in accordance with the principles and guidance in IECA Australasia's Best Practice Erosion and Sediment Control (BPESC) document (2008).*
- *All waterway crossings for new or upgraded access tracks will be designed, constructed and maintained in accordance with the Forest Practices Authority – Forest Practices Code 2020 (FPA, 2020) and the Waterways and Wetlands Manual (DPIPWE, 2003) to minimise potential impacts to riparian or littoral vegetation and flow and drainage.*

(b) **Northern transmission option:** There is no threatened riparian or littoral vegetation listed under the NC Act potentially impacted by the northern transmission line. Minor impacts to non-threatened riparian and littoral vegetation may result from the construction of watercourse crossings to upgrade access tracks over Tungatinah Creek, Black Bob's Rivulet and an unnamed waterway. Impacts to riparian or littoral vegetation are expected to be minimal as watercourse crossings are for the minor upgrade of existing access tracks where a crossing already exists and are over small watercourses, the largest being Black Bob's Rivulet which is a Conservation of Freshwater Ecosystems Values (CFEV) stream order 3 with an accumulated catchment area at the location of the access track crossing of 1,035 ha.

**Southern transmission option:** There is no threatened riparian or littoral vegetation listed under the NC Act potentially impacted by the southern transmission line. Minor impacts to non-threatened riparian and littoral vegetation may result from the construction of watercourse crossings to upgrade access tracks over Tungatinah Creek, Ringing Creek and two unnamed waterways. Impacts to riparian or littoral vegetation are expected to be minimal as watercourse crossings are for the minor upgrade of existing access tracks where a crossing already exists and are over small watercourses, with the largest being Ringing Creek which is a CFEV stream order 3 with an accumulated catchment area at the location of the access track crossing of 1,292 ha.

Potential impacts to riparian and littoral vegetation for both transmission options will be mitigated through application of Mitigation Measures described in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measures:

- *A final Project disturbance footprint (within the Project disturbance footprint presented within this report) will be established based on the Project's final design and construction method. The disturbance footprint and vegetation clearing exclusion zones will be clearly shown on Project plans, communicated to all construction personnel and physically marked on site. Vegetation clearing will be limited to the minimum necessary to construct and operate the Project*
- *A Site Establishment Management Plan (SEMP) will be prepared prior to the commencement of site establishment activities and implemented during their execution. The SEMP will outline the environmental management practices and procedures to be implemented for site establishment activities*
- *All waterway crossings for new or upgraded access tracks will be designed, constructed and maintained in accordance with the Forest Practices Authority – Forest Practices Code 2020 (FPA, 2020) and the Waterways and Wetlands Manual (DPIPWE, 2003) to minimise potential impacts to riparian or littoral vegetation and flow and drainage*

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

(c) **Northern transmission option:** Natural streambank and streambed condition has the potential to be impacted by the construction of watercourse crossings to upgrade access tracks over Tungatinah Creek, Black Bob's Rivulet and an unnamed waterway. Potential impacts to natural streambank and stream bed conditions are expected to be minimal as all potential watercourse crossings are for the upgrade of existing access tracks where a crossing already exists and are over minor watercourses, the largest being Black Bob's Rivulet which is a CFEV stream order 3 with an accumulated catchment area at the location of the access track crossing of 1,035 ha.

**Southern transmission option:** Natural streambank and streambed condition has the potential to be impacted by the construction of watercourse crossings to upgrade access tracks over Tungatinah Creek, Ringing Creek and two unnamed waterways. Potential impacts to natural streambank and stream bed conditions are expected to be minimal as all potential watercourse crossings are for the upgrade of existing access tracks where a crossing already exists and are over minor watercourses, the largest Ringing Creek which is a CFEV stream order 3 with an accumulated catchment area at the location of the access track crossing of 1,292 ha.

Natural streambank and streambed condition will be maintained for both transmission options through application of Mitigation Measures described in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measure:

- *All waterway crossings for new or upgraded access tracks will be designed, constructed and maintained in accordance with the Forest Practices Authority – Forest Practices Code 2020 (FPA, 2020) and the Waterways and Wetlands Manual (DPIPWE, 2003) to minimise potential impacts to riparian or littoral vegetation and flow and drainage*

(d) **Northern transmission option:** Instream natural habitat has the potential to be impacted by the construction of watercourse crossings to upgrade access tracks over Tungatinah Creek, Black Bob's Rivulet and an unnamed waterway. Potential impacts to natural streambank and stream bed conditions are expected to be minimal as all potential watercourse crossings are for the upgrade of existing access tracks where a crossing already exists and are over minor watercourses, the largest being Black Bob's Rivulet which is a CFEV stream order 3 with an accumulated catchment area at the location of the access track crossing of 1,035 ha.

**Southern transmission option:** Instream natural habitat has the potential to be impacted by the construction of watercourse crossings to upgrade access tracks over Tungatinah Creek, Ringing Creek and two unnamed waterways. Potential impacts to natural streambank and stream bed conditions are expected to be minimal as all potential watercourse crossings are for the upgrade of existing access tracks where a crossing already exists and are over minor watercourses, the largest being Ringing Creek which is a CFEV stream order 3 with an accumulated catchment area at the location of the access track crossing of 1,292 ha.

Impacts to instream natural habitat will be minimised through application of Mitigation Measures described in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measure:

- *All waterway crossings for new or upgraded access tracks will be designed, constructed and maintained in accordance with the Forest Practices Authority – Forest Practices Code 2020 (FPA, 2020) and the Waterways and Wetlands Manual (DPIPWE, 2003) to minimise potential impacts to riparian or littoral vegetation and flow and drainage*

(e) **Northern transmission option:** Construction will not significantly impede natural flow and drainage in the waterway protection area within the areas of the northern transmission option. Crossings of Tungatinah Creek, Black Bob's Rivulet and the unnamed waterway will be designed to maintain flow and drainage in accordance with the Forest Practices Authority – *Forest Practices Code 2020* (FPA, 2020) and the *Waterways and Wetlands Manual* (DPIPWE, 2003) whilst other works including access tracks and tower pads will be designed to maintain natural drainage in accordance with the FPA code and DPIPWE manual above as well as the Project's ESCP prepared in accordance with IECA requirements.

**Southern transmission option:** Construction will not significantly impede the natural flow and drainage in the waterway protection area within areas of the southern transmission line. Crossings of Tungatinah Creek, Ringing Creek and two unnamed waterways will be designed to maintain flow and drainage in accordance with the Forest Practices Authority – *Forest Practices Code 2020* (FPA, 2020) and the *Waterways and Wetlands Manual* (DPIPWE, 2003) whilst other works including access tracks and tower pads will be designed to maintain natural drainage in accordance with the FPA code and DPIPWE manual above as well as the Project's ESCP prepared in accordance with IECA requirements.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

(f) **Northern transmission option:** Fish passage will be maintained on crossings of Tungatinah Creek, Black Bob's Rivulet and the unnamed waterway through the implementation of the Forest Practices Authority – *Forest Practices Code 2020* (FPA, 2020) and the *Waterways and Wetlands Manual* (DPIPWE, 2003) in particular, section B3.3 and Guideline 5 respectively, which describe culvert design requirements to maintain fish passage.

**Southern transmission option:** Fish passage will be maintained on crossings of Tungatinah Creek, Ringing Creek and two unnamed waterways through the implementation of the Forest Practices Authority – *Forest Practices Code 2020* (FPA, 2020) and the *Waterways and Wetlands Manual* (DPIPWE, 2003) in particular, section B3.3 and Guideline 5 respectively, which describe culvert design requirements to maintain fish passage.

(g) **Northern transmission option:** there are two wetlands associated with the northern option, being an unnamed wetland associated with Tungatinah Creek and another unnamed wetland associated with the unnamed waterway flowing from the canal at Spillway Bay in Dee Lagoon. Minor land filling within the mapped boundary of the two wetlands may occur from the construction of tower pads T8 and T24 which partly overlap the wetlands and the upgrade of access tracks between transmission towers T8 and T9 and T24 and T25 which traverse the wetlands. Potential impacts are expected to be minor as both tower pads only partly intersect the mapped wetlands and it is anticipated that tower pads will be micro-sited to avoid wet areas and upgrades of access tracks will not significantly increase the width of the existing track and as such do not require significant land filling.

**Southern transmission option:** There is one wetland associated with the southern option, being an unnamed wetland associated with the unnamed tributary of the Nive River. Minor landfilling of the wetland may occur from the construction of the pole pad for TP21, which is wholly within the mapped boundary of the wetland. Potential impacts are expected to be minor as the area of pole pad for TP21 is only approximately 2.5% of the mapped area of the wetland and it is anticipated that pole pads will be micro-sited to avoid wet areas.

(h) **Northern transmission option:** This option is located parallel to the existing overhead 110kV Waddamana to Tungatinah transmission line. Its location adjacent to existing transmission infrastructure minimises impacts to natural values by reducing clearing required for new easement and access tracks. The northern transmission option will use 30 m of the existing easement for the Waddamana to Tungatinah transmission line, therefore reducing the width required for new easement to 30 m. The northern transmission option will also largely utilise the existing access track, including waterway crossing, established for the Waddamana to Tungatinah transmission line with only minor upgrades required.

**Southern transmission option:** This option is located parallel to the existing overhead 110kV Tarraleah to New Norfolk transmission line. Its location adjacent to existing transmission infrastructure minimises impacts to natural values by reducing clearing required for new easement and access tracks. The southern transmission option will use 30 m of the existing easement for the Tarraleah to New Norfolk Transmission Line reducing the width required for new easement to 30 m. The southern transmission option will also largely utilise the existing access track, including waterway crossing, established for the Tarraleah to New Norfolk transmission line with only minor upgrades required.

(i) **Northern transmission option:** Cut and fill will be required for the establishment of tower pads and upgrade of access tracks. The reference design for the northern transmission option has minimised cut and fill as far as is practicable, including for sections of the design that fall within the waterway protection area.

**Southern transmission option:** Cut and fill will be required for the establishment of pole pads and upgrade of access tracks. The reference design for the southern transmission option has minimised cut and fill as far as is practicable, including for sections of the design that fall within the waterway protection area.

(j) **Northern transmission option:** The reference design for the northern transmission option responds to the size, shape, contour and slope of the land by sizing towers in accordance with topography (shorter towers on higher locations) within the constraints imposed be relevant design standards.

**Southern transmission option:** The reference design for the southern transmission option responds to the size, shape, contour and slope of the land by sizing towers in accordance with topography (shorter towers on higher locations) within the constraints imposed be relevant design standards.

(k) There are no potential impacts on coastal process resulting from either the northern or southern transmission option.

**(l)** Either transmission options will be designed and constructed in accordance with relevant design standards and the Forest Practices Authority – *Forest Practices Code 2020* (FPA, 2020) and the *Waterways and Wetlands Manual* (DPIPWE, 2003). Other than standard maintenance of vegetation on easements and access tracks no future works for the protection of natural assets, infrastructure and property are anticipated.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| (m) Either transmission options will be designed and constructed in accordance with the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measure:<br>◦ *All waterway crossings for new or upgraded access tracks will be designed, constructed and maintained in accordance with the Forest Practices Authority – Forest Practices Code 2020 (FPA, 2020) and the Waterways and Wetlands Manual (DPIPWE, 2003) to minimise potential impacts to riparian or littoral vegetation and flow and drainage*<br>There are no coastal works associated with the either transmission option and as such guidelines in the Tasmanian Coastal Works Manual are not applicable.<br>The Project is considered consistent with the performance criteria P1.1.<br>**P1.2**<br>Performance criteria P1.2 does not apply to the Project as no building works for either the northern or southern transmission option are within the spatial extent of tidal waters. | |
| **A2**<br>Buildings and works within a future coastal refugia area must be located within a building area on a sealed plan approved under this planning scheme. | **P2.1**<br>Buildings and works within a future coastal refugia area must allow for natural coastal processes to continue to occur and avoid or minimise adverse impacts on natural assets, having regard to:<br>(a) allowing for the landward transgression of sand dunes and the landward colonisation of wetlands, saltmarshes and other coastal habitats from adjacent areas;<br>(b) avoiding the creation of barriers or drainage networks that would prevent future tidal inundation;<br>(c) allowing the coastal processes of sand deposition or erosion to continue to occur;<br>(d) the need to group new facilities with existing facilities, where reasonably practical;<br>(e) the impacts on native vegetation;<br>(f) minimising cut and fill;<br>(g) building design that responds to the particular size, shape, contours or slope of the land;<br>(h) the impacts of sea-level rise on natural coastal processes and coastal habitat;<br>(i) the environmental best practice guidelines in the Wetlands and Waterways Works Manual; and<br>(j) the guidelines in the Tasmanian Coastal Works Manual.<br>**P2.2**<br>Buildings and works within a future coastal refugia area must be for a use that relies upon a coastal location to fulfil its purpose, having regard to:<br>(a) the need to access a specific resource in a coastal location;<br>(b) the need to operate a marine farming shore facility;<br>(c) the need to access infrastructure available in a coastal location;<br>(d) the need to service a marine or coastal related activity;<br>(e) provision of essential utility or marine infrastructure; and<br>(f) provision of open space or for marine-related educational, research, or recreational facilities. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Assessment**<br>The Project (northern or southern transmission options) is not mapped within a future coastal refugia area, therefore A2 does not apply. | |
| **A3**<br>Development within a waterway and coastal protection area or a future coastal refugia area must not involve a new stormwater point discharge into a watercourse, wetland or lake. | **P3**<br>Development within a waterway and coastal protection area or a future coastal refugia area involving a new stormwater point discharge into a watercourse, wetland or lake must avoid or minimise adverse impacts on natural assets, having regard to:<br>(a) the need to minimise impacts on water quality; and<br>(b) the need to mitigate and manage any impacts likely to arise from erosion, sedimentation or runoff. |

**Assessment**

Stormwater will be managed at locations of potential ground disturbing activities within the waterway protection area for both transmission options. Stormwater management at these locations is likely to include new stormwater discharge points that discharge directly or indirectly into a watercourse or wetland. As such, A3 is not met, and an assessment against P3 is provided below.

**P3**

Northern transmission option

Infrastructure that partially intersect the waterway protection area are:

- establishment of four tower pads (T8, T24, T29 and T30-34), and
- upgrade of three sections of access track (T8 to T9, T15 to T16 and T24 to 25).

Stormwater at these sites will be managed during construction by either diversion around the site to existing flow paths or be collected, treated and disposed or of in accordance with an Erosion and Sediment Control Plan as outlined in the mitigation measures outlined below. Stormwater discharge from sites will likely enter the following waterways either directly, or via managed overland flow; Tungatinah Creek, the unnamed waterway flowing from the canal at Spillway Bay in Dee Lagoon, the unnamed waterway draining into Dee Lagoon or Dee Lagoon itself. If not adequately managed stormwater runoff as the potential to adversely impact water quality and ecological values in these waterways. Stormwater management is not anticipated to be required during operation following rehabilitation of sites immediately following construction.

To avoid potential impacts to water quality, including those from potential erosion and sedimentation, and associated ecological values stormwater at these locations will be managed through the application of Mitigation Measures described in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measures:

- *An Erosion and Sediment Control Plan will be prepared prior to the commencement of construction and implemented during construction. The ESCP will be prepared by a suitably qualified professional as defined the IECA Australasia Position Statement – Definition of a Suitably Qualified Professional (Nov 2023) in accordance with the principles and guidance provided in IECA Australasia's BPESC document (2008)).*

The disturbance footprint for the northern transmission option has been designed in consideration of stormwater management requirements.

The northern transmission option is considered consistent with the performance criteria in P3.

Southern transmission option

Infrastructure that partially intersect the waterway protection area are:

- establishment of four pole pads (TP1, TP 21, TP22 and TP45), and
- upgrade of five sections of access track (TP21 to TP22, TP21 to TP22, TP38 to TP39 and upgraded access to TP44 and TP45).

Stormwater at these sites will be managed during construction by either diversion around the site to existing flow paths or be collected, treated and disposed or of in accordance with an Erosion and Sediment Control Plan as outlined in the mitigation measures outlined below. Stormwater discharge from sites will likely enter the following waterways either directly, or via managed overland flow; Nive River, the unnamed tributary of Ringing Creek or Ringing Creek. If not adequately managed stormwater runoff as the potential to adversely impact water quality and ecological values in these waterways. Stormwater management is not anticipated to be required during operation following rehabilitation of sites immediately following construction.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| To avoid potential impacts to water quality, including those from potential erosion and sedimentation, and associated ecological values stormwater at these locations will be managed through the application of Mitigation Measures described in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026) including the following measures:<br>• *An Erosion and Sediment Control Plan will be prepared prior to the commencement of construction and implemented during construction. The ESCP will be prepared by a suitably qualified professional as defined the IECA Australasia Position Statement – Definition of a Suitably Qualified Professional (Nov 2023) in accordance with the principles and guidance provided in IECA Australasia's BPESC document (2008)).*<br>The disturbance footprint for the southern transmission option has been designed in consideration of stormwater management requirements.<br>The southern transmission option is considered consistent with the performance criteria in P3. | |
| **A4**<br>Dredging or reclamation must not occur within a waterway and coastal protection area or a future coastal refugia area. | **P4.1**<br>Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must minimise adverse impacts on natural coastal processes and natural assets, having regard to:<br>(a) impacts caused by erosion, siltation, sedimentation and runoff;<br>(b) impacts on riparian or littoral vegetation;<br>(c) the need to avoid land filling of wetlands;<br>(d) impacts on sand movement and wave action; and<br>(e) the potential for increased risk to inundation of adjacent land.<br>**P4.2**<br>Dredging or reclamation within a waterway and coastal protection area or a future coastal refugia area must be necessary:<br>(a) to continue an existing use or development on adjacent land; or<br>(b) for a use which relies upon a coastal location to fulfil its purpose, having regard to:<br>(i) the need to access a specific resource in a coastal location;<br>(ii) the need to operate a marine farming shore facility;<br>(iii) the need to access infrastructure available in a coastal location;<br>(iv) the need to service a marine or coastal related activity;<br>(v) provision of essential utility or marine infrastructure; and<br>(vi) provision of open space or for marine-related educational, research, or recreational facilities. |
| **Assessment**<br>No dredging or reclamation is proposed for either the northern or southern transmission line options. A4 does not apply to this Project. | |
| **A5**<br>Coastal protection works or watercourse erosion or inundation protection works must not occur within a waterway and coastal protection area or a future coastal refugia area. | **P5**<br>Coastal protection works or watercourse erosion or inundation protection works within a waterway and coastal protection area or a future coastal refugia area must be designed by a suitably qualified person and minimise adverse impacts on natural coastal processes, having regard to:<br>(a) impacts on sand movement and wave action; and<br>(b) the potential for increased risk of inundation to adjacent land. |
| **Assessment**<br>No coastal protection works or watercourse erosion or inundation protection works are proposed for either the northern or southern transmission options. A5 does not apply to this Project. | |

## Clause 7.6.2 – Clearance within a priority vegetation area

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That clearance of native vegetation within a priority vegetation area:<br>(a) does not result in unreasonable loss of priority vegetation;<br>(b) is appropriately managed to adequately protect identified priority vegetation; and<br>(c) minimises and appropriately manages impacts from construction and development activities. | |
| **A1**<br>Clearance of native vegetation within a priority vegetation area must be within a building area on a sealed plan approved under this planning scheme. | **P1.1**<br>Clearance of native vegetation within a priority vegetation area must be for:<br>(a) an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmania Fire Service or an accredited person;<br>(b) buildings and works associated with the construction of a single dwelling or an associated outbuilding;<br>(c) subdivision in the General Residential Zone or Low Density Residential Zone;<br>(d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design;<br>(e) clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or<br>(f) the clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site.<br>**P1.2**<br>Clearance of **native vegetation** within a **priority vegetation area** must minimise adverse impacts on **priority vegetation**, having regard to:<br>(a) the design and location of buildings and works and any constraints such as topography or land hazards;<br>(b) any particular requirements for the buildings and works;<br>(c) minimising impacts resulting from bushfire hazard management measures through siting and fire-resistant design of habitable buildings;<br>(d) any mitigation measures implemented to minimise the residual impacts on priority vegetation;<br>(e) any on-site biodiversity offsets; and<br>(f) any existing cleared areas on the site. |

**Assessment**

Clearance of vegetation required for the Project within the priority vegetation area is not within a building area on a sealed plan approved under the planning scheme. The Project must therefore be assessed against the performance criteria:

**P1.1**

The most appropriate performance criteria is (d).

d) **Northern transmission option:** The clearance of native vegetation, including areas within the priority vegetation overlay, will be necessary for the construction of the northern transmission option, which, as part of the Project, will provide benefit to Tasmania's energy network and support a range of social and economic benefits – see *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026). Alternative transmission options were considered, and the southern transmission option is still being considered, however, co-location of the new transmission line with an existing transmission line, as both the northern and southern transmission options provide, is considered the most feasible option, in part, because of the reduced impact to priority vegetation.

**Southern transmission option:** The clearance of native vegetation, including areas within the priority vegetation overlay, will be necessary for the construction of the southern transmission option, which, as part of the Project, will provide benefit to Tasmania's energy network and support a range of social and economic benefits – see the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026). Alternative transmission options were considered, and the northern transmission option is still being considered, however, co-location of the new transmission line with an existing transmission line, as both the northern and southern transmission options provide, is considered the most feasible option, in part, because of the reduced impact to priority vegetation.

The Project is considered consistent with P1.1(d).

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

**P1.2**

a) **Northern transmission option:** The design of the northern transmission option has sought to minimise adverse impacts on priority vegetation by locating the option parallel to the existing Waddamana to Tungatinah transmission line. Locating the northern transmission option adjacent to existing transmission infrastructure minimises impacts to priority vegetation by reducing clearing required for new easement and access tracks. The northern transmission option will use 30 m of the existing easement for the Waddamana to Tungatinah transmission line reducing the width required for new easement to 30 m. The northern transmission option will also largely utilise the existing access track, including established for the Waddamana to Tungatinah transmission line further reducing impacts to priority vegetation.

**Southern transmission option:** The design of the southern transmission option is located parallel to the existing Tarraleah to New Norfolk transmission line. Locating the southern transmission option adjacent to existing transmission infrastructure minimising impacts to priority vegetation by reducing clearing required for new easement and access tracks. The southern transmission option will use 30 m of the existing easement for the Tarraleah to New Norfolk transmission line e reducing the width required for new easement to 30 m. The southern transmission option will also largely utilise the existing access track established for the Tarraleah to New Norfolk transmission line with further reducing impacts to priority vegetation.

b) **Northern transmission option:** Particular requirements for the northern transmission option that potentially impact priority vegetation are the easement width and asset protection zones. As described in a) above, priority vegetation clearance for easement establishment has been minimised by designing the option of the northern transmission option parallel to the existing Waddamana to Tungatinah Transmission Line. A preliminary bushfire hazard analysis (refer Appendix D) has been prepared by Bushfire Risk Consultants, who are accredited by the Tasmanian Fire Service, and allowance for asset protection zones included in the disturbance footprint. Although vegetation management will be required in asset protection zones, impacts to priority vegetation are reduced as managed easements still provide habitat for threatened fauna.

**Southern transmission option:** Particular requirements for the southern transmission option that potentially impact priority vegetation are the easement width and asset protection zones. As described in a) above priority vegetation clearance for easement establishment has been minimised by designing the option of the southern transmission option parallel to the existing Tarraleah to New Norfolk Transmission Line. A preliminary bushfire hazard analysis (refer Appendix D) has been prepared by Bushfire Risk Consultants, who are accredited by the Tasmanian Fire Service, and allowance for asset protection zones included in the disturbance footprint. Although vegetation management will be required in asset protection zones impacts to priority vegetation are reduced as managed easements still provide habitat for threatened fauna.

c) **Northern transmission option:** There are no habitable buildings proposed as part of the northern transmission option, and this criterion is not considered applicable.

However, as described in b) above a preliminary bushfire hazard analysis has been prepared and allowance for asset management zones included in the disturbance footprint of the northern transmission option. The impacts of bushfire hazard management on priority vegetation have been minimised by designing the option of the northern transmission option parallel to the existing Waddamana to Tungatinah Transmission Line reducing the width of new easement and the corresponding area of new asset protection zone.

**Southern transmission option:** There are no habitable buildings proposed as part of the southern transmission option and this criterion is not considered applicable. However, as described in b) above a preliminary bushfire hazard analysis has been prepared and allowance for asset management zones included in the disturbance footprint of the southern transmission option. The impacts of bushfire hazard management on priority vegetation have been minimised by designing the option of the southern transmission option parallel to the existing Tarraleah to New Norfolk Transmission Line reducing the width of new easement and the corresponding area of new asset protection zone.

d) **Northern transmission option:** Mitigation measures to minimise residual impacts to priority vegetation for the Project, including those resulting from the northern transmission option are detailed in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026). Mitigation measures specifically relating to impacts to priority vegetation associated with the northern transmission option are described in Appendix A.1 and include:
   - Minimising disturbance as far as practicable, especially on significant species, by establishing a finalised disturbance footprint and exclusion zones for vegetation clearance prior to construction.
   - Implementing a site establishment plan
   - Having important features or species – i.e. hazard trees, habitat trees and denning habitat assessed by a suitably qualified specialist prior to any required disturbance.
   - Minimising impacts to the threatened flora species Westringia angustifolia at transmission towers T3 and T14 and establishing exclusion zones to protect Westringia angustifolia that can be avoided.
   - Implementing a roadkill management plan to protect the threatened fauna species the Tasmanian devil and spotted-tailed quoll.
   - Conducting annual eagle nest searches, in accordance with relevant EPA guidance, and for worksites with within 500 m or 1 km line-of-sight of an eagle nest not conducting work at those sites until the nest has been confirmed inactive during each annual breeding season.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

**Southern transmission option:** Mitigation measures to minimise residual impacts to priority vegetation for the Project, including those resulting from the southern transmission line are detailed in the *Tarraleah Redevelopment Project - Environmental Impact Statement* (Hydro Tasmania, 2026). Mitigation measures specifically relating to impacts to priority vegetation associated with the southern transmission line are described in Appendix A.1 and include:

- Minimising disturbance as far as practicable, especially on significant species, by establishing a finalised disturbance footprint and exclusion zones for vegetation clearance prior to construction.
- Implementing a site establishment plan
- Having important features or species – i.e. hazard trees, habitat trees and denning habitat assessed by a suitably qualified specialist prior to any required disturbance.
- Avoiding impacts to the threatened flora species Barbarea australis located adjacent to the disturbance footprint on the Nive River near TP1 by establishing exclusion zones during construction.
- Implementing a roadkill management plan to protect the threatened fauna species the Tasmanian devil and spotted-tailed quoll.
- Conducting annual eagle nest searches, in accordance with relevant EPA guidance, and for worksites with within 500 m or 1 km line-of-sight of an eagle nest not conducting work at those sites until the nest has been confirmed inactive during each annual breeding season.

e) There are no on-site biodiversity offsets proposed for either the northern or southern transmission line options.

f) **Northern transmission option:** The design of this option has sought to utilised existing cleared areas by locating the option parallel to the existing Waddamana to Tungatinah Transmission Line. This design allows part of the new transmission line easement to be located in the existing, already cleared, easement. The northern transmission option will also upgrade the existing access track again utilising already cleared areas.

**Southern transmission option:** The design of this option has sought to utilised existing cleared areas by locating the option parallel to the existing Tarraleah to New Norfolk Transmission Line. This design allows part of the new transmission line easement to be located in the existing, already cleared, easement. The southern transmission option will also upgrade the existing access track again utilising already cleared areas.

The Project is considered consistent with P1.2

## 5.12 Attenuation Code

There is an attenuation area surrounding a sewage treatment lagoon to the south of Tarraleah Village, as shown in Figure 5-8. The Project will not be impacted by this code as it is not a sensitive development (e.g. housing); however, if any new accommodation (subject to a separate planning permit application) is built at Tarraleah Village, proximity to the attenuation area would need to be considered.

Further assessment against this code is not required as part of this DA.

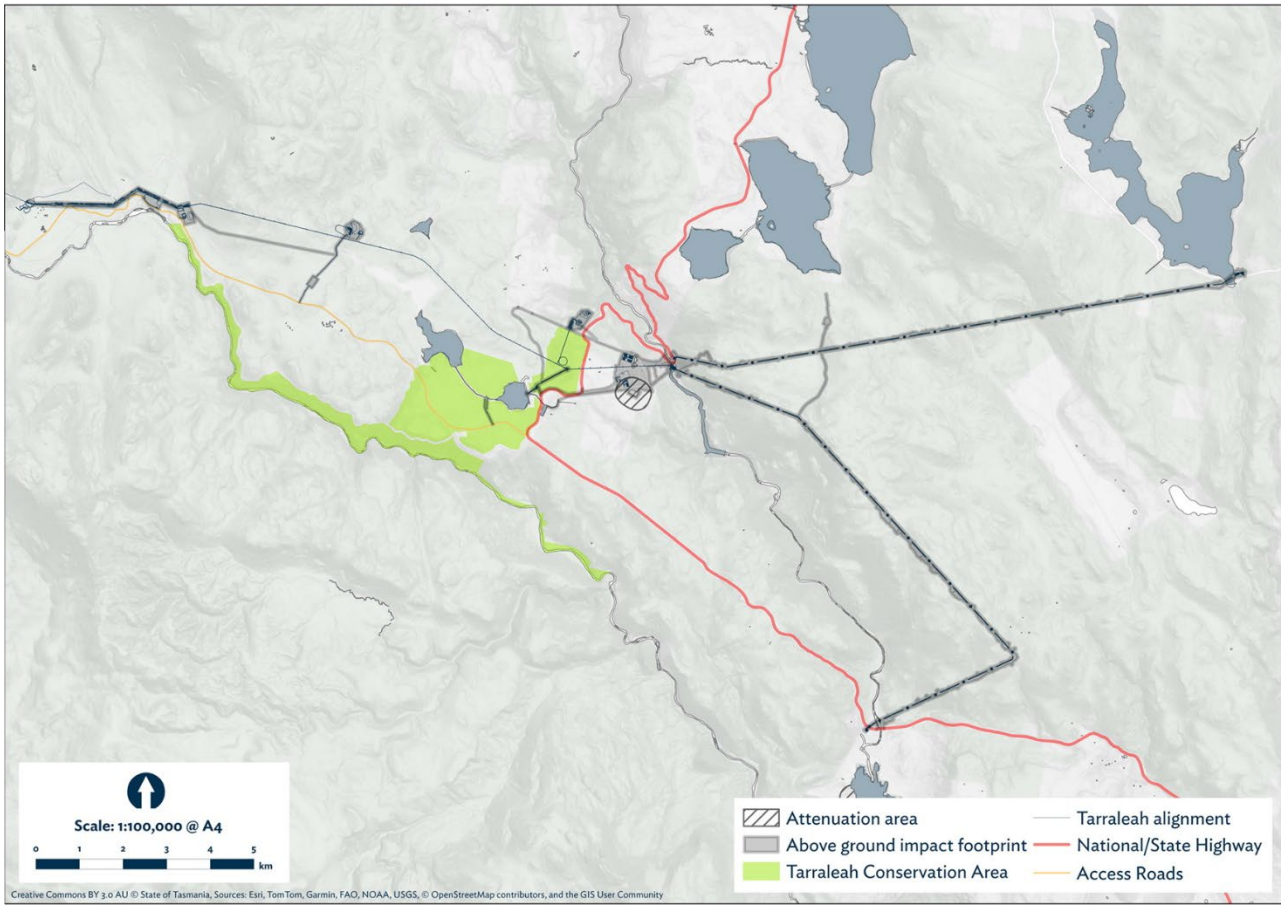



*Figure 5-8: Attenuation areas overlay*

# 5.13 Flood-Prone Areas Hazard Code

## 5.13.1 Clause 12.2 – Application of this Code

This code applies as, pursuant to Clause C12.2.4, Council as the planning authority believes, based on information in its possession—being the Statewide Hazard Mapping—that the land is subject to risk from flood or has the potential to cause increased risk from flood.

This code is only applicable to sections of the transmission line where there is modelled 1% AEP overland flood risk.

The use and development is not exempt from this code as it is not considered a minor utilities.

## 5.13.2 Clause 12.5 – Use Standards

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| That a habitable building can achieve and maintain a tolerable risk from flood. | |
| **A1**<br>No Acceptable Solution. | **P1.1**<br>A change of use that, converts a non--habitable building to a habitable building, or a use involving a new habitable room within an existing building, within a flood-prone hazard area must have a tolerable risk, having regard to:<br>(a) the location of the building;<br>(b) the advice in a flood hazard report; and<br>(c) any advice from a State authority, regulated entity or a council.<br>**P1.2**<br>A flood hazard report also demonstrates that:<br>(a) any increase in the level of risk from flood does not require any specific hazard reduction or protection measures; or<br>(b) the use can achieve and maintain a tolerable risk from a 1 % annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures. |

**Assessment**

P1.1 does not apply as the use is not a change of use.

P1.2 - A Flood Hazard Assessment has been prepared (Appendix G) by suitably qualified hydrology specialists. The assessment concluded that no hazard reduction or flood protection measures are required for the transmission options, and that the transmission options can achieve and maintain a tolerable risk from a 1% AEP (including 2090 climate) flood event for their intended operational life, without requiring flood protection measures. It is noted that the flood hazard as modelled by the Statewide Hazard Mapping refers to overland flooding in areas that are largely flat. Notably, the areas with modelled flood risk also contains other transmission infrastructure and flood risks have been appropriately managed. It is considered that the proposal satisfies P1.2.

## 5.13.3 Clause 12.6 – Development Standards for Building and Works

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| (a) building and works within a flood-prone hazard area can achieve and maintain a tolerable risk from flood; and<br>(b) buildings and works do not increase the risk from flood to adjacent land and public infrastructure. | |
| **A1**<br>No Acceptable Solution. | **P1.1**<br>Buildings and works within a flood-prone hazard area must achieve and maintain a tolerable risk from a flood, having regard to:<br>(a) the type, form, scale and intended duration of the development;<br>(b) whether any increase in the level of risk from flood requires any specific hazard reduction or protection measures;<br>(c) any advice from a State authority, regulated entity or a council; and<br>(d) the advice contained in a flood hazard report. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| | **P1.2**<br>A flood hazard report also demonstrates that the building and works:<br>(a) do not cause or contribute to flood on the site, on adjacent land or public infrastructure; and<br>(b) can achieve and maintain a tolerable risk from a 1% annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures. |

**Assessment**

P1.1 - Most of the transmission options are outside mapped flood hazard areas. Where flood flow crosses the transmission line options, the impacts are considered minor and local. Mitigation and residual risk are addressed in the Flood Hazard Assessment (Appendix G – Section 5). As outlined in the assessment, where placement of transmission line towers and footings in flood-prone areas cannot be avoided, the geotechnical design of the tower footings and the structural design of the steel lattice towers should consider the effects of flood waters on the structures during the tower's design flow. This should include erosion and scour of tower footings, hydrodynamic forces arising from moderate to high velocity water flow around the structure, debris impact forces and additional hydrodynamic forces resulting from potential accumulation of debris between the tower legs causing damming of water or blockage of flow. The design flows for hydrodynamic forces will require at least 1 in 500 AEP flood modelling and consideration of debris flows.

P1.2 - The Flood Hazard Assessment (Appendix G) found that modelled changes resulting from the transmission line options are minor and localised, and largely within already-inundated areas, with no material increase in flooding on site or of adjacent land or public infrastructure. A small localised flood hazard increase near the Lyell Highway reflects preliminary access track design and would be refined/reduced during detailed design.

The transmission options can achieve and maintain a tolerable risk from a 1% AEP (including 2090 climate) flood event for the duration of the use, without requiring flood protection measures (see Appendix G).

The proposal is considered to meet P1.1 and P1.2.

# 5.14 Bushfire-Prone Areas Code

## 5.14.1 Clause 13.2 – Application of this Code

This code applies to:

a) subdivision of land located within, or partially within, a bushfire-prone area; and

b) a use on land located within, or partially within, a bushfire-prone area that is a vulnerable use or hazardous use.

While manifest quantities of hazardous chemicals may be stored onsite during construction, none will be stored at the power station after practical completion.

Pursuant to Clause E1.2.1, the code does not apply as the proposed development is neither a subdivision nor a vulnerable or hazardous use, with hazardous use defined as the storage of hazardous chemicals in manifest quantities.

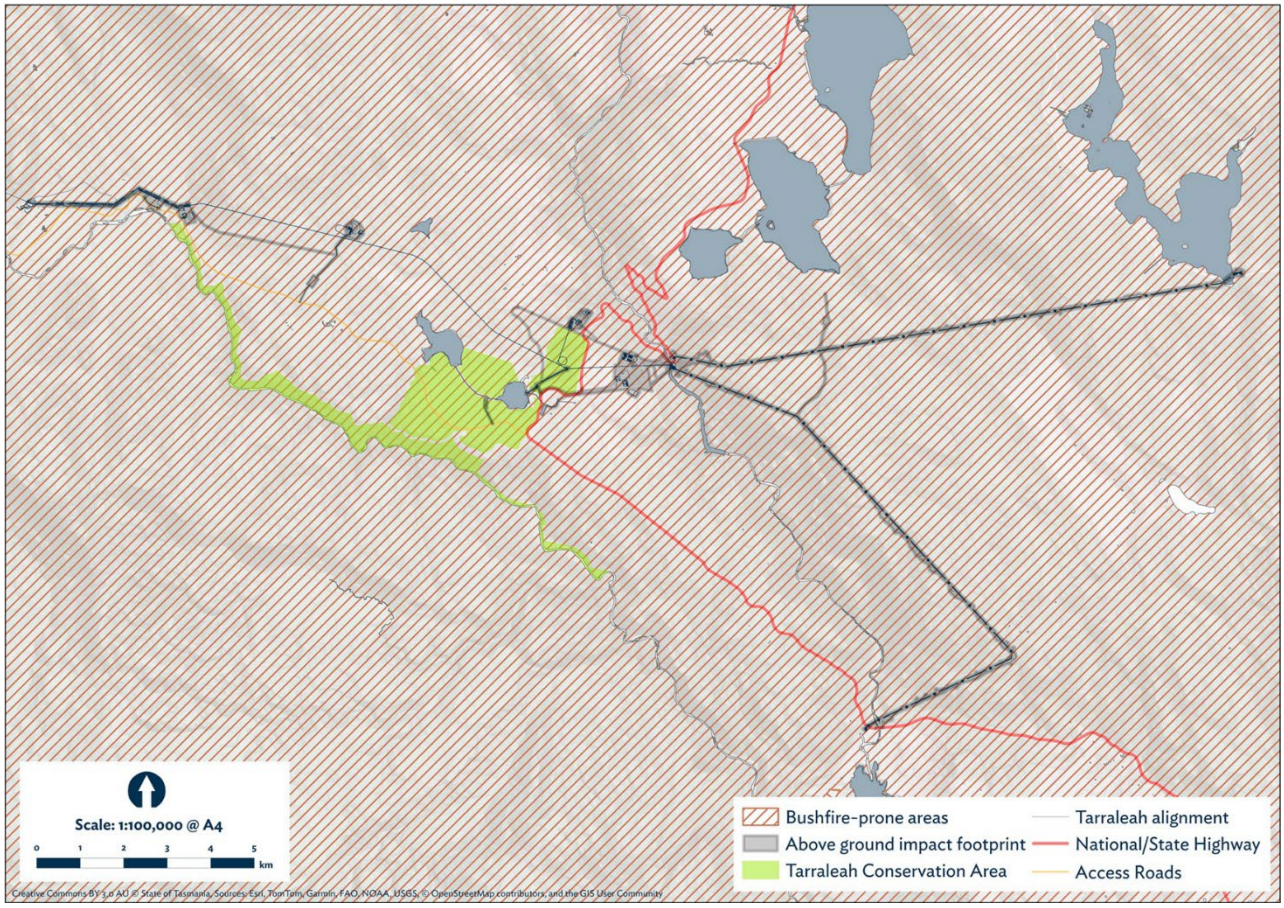



*Figure 5-9: Bushfire-prone areas overlay*

## 5.15 Potentially Contaminated Land Code

An Environmental Site Assessment (ESA) (Appendix H) appraised the Project and demonstrated compliance with the relevant provisions of the Potentially Contaminated Land Code.

The proposal includes a new power station, which is listed as a potentially contaminating activity under Table C14.2 of the Code. The site of the new power station is over an existing switchyard, on land deemed by Council to be potentially contaminated pursuant to Clause C14.2.1.

## 5.15.1 Clause 14.5 – Use Standards

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| That potentially contaminated land is suitable for a sensitive use or a Use Class listed in Table C14.1 and is one of the specified uses. | |
| **A1**<br>For a sensitive use, or a specified use listed in Table C14.1, the Director, or a person approved by the Director for the purpose of this code:<br>(a) certifies that land is suitable for the intended use; or<br>(b) certifies a plan to manage contamination and associated risk to human health or the environment, so that the land is suitable for the intended use, or if in relation to redevelopment on land subject to the Macquarie Point Development Corporation Act 2012, the intended use must be in accordance with a certificate that has been or will be granted by an accredited environmental auditor. | **P1**<br>For a sensitive use, or a specified use listed in Table C14.1, the land is suitable for the intended use, having regard to:<br>(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or<br>(b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or<br>(c) an environmental site assessment that includes a plan, to manage contamination and associated risk to human health or the environment that includes:<br>(i) any specific remediation and protection measures required to be implemented before any use commences; and<br>(ii) a statement that the land will be suitable for the intended use. |

**Assessment**

The Director, or a person certified by the Director, has not certified that the land is suitable for the intended use or certified a plan to manage contamination, therefore the Project does not meet A1.

The ESA demonstrates that the level of contamination does not present a risk to human health or the environment (Appendix H). As such the area is suitable for the intended ongoing commercial/industrial land use (as per zoning) within the surface disturbance footprint at the Tarraleah Switchyard and complies with P1(b) of Clause C14.5.1 (use standard).

The Project therefore complies with P1.

## 5.15.2 Clause 14.6 – Development Standards for Building and Works

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| That works involving excavation of potentially contaminated land, excluding on land subject to the Macquarie Point Development Corporation Act 2012, do not adversely impact on human health or the environment. | |
| **A1**<br>Excavation, excluding on land subject to the *Macquarie Point Development Corporation Act 2012*, must involve less than 250m$^3$ of site disturbance. | **P1**<br>Excavation, excluding on land subject to the *Macquarie Point Development Corporation Act 2012*, must not have an adverse impact on human health or the environment, having regard to:<br>(a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or<br>(b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or<br>(c) an environmental site assessment, including a plan to manage contamination and associated risk to human health and the environment, that includes:<br>(i) any specific remediation and protection measures required to be implemented before excavation commences; and<br>(ii) a statement that the excavation does not adversely impact on human health or the environment. |

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|

**Assessment**

Excavation works, and therefore the Project does not meet A1.

The ongoing commercial/industrial land use (as per zoning) within the surface disturbance footprint at the Tarraleah Switchyard can comply with P1(c) of Clause C14.6.1 (development standard for building works) as the works will be undertaken in accordance with the recommended protection measures in the ESA. These measures will be implemented before excavation commences. The ESA concluded that if these measures are implemented, excavation will not adversely impact human health or the environment.

The Project therefore complies with P1.

# 5.16 Landslip Hazard Code

## 5.16.1 Clause 15.5.1 – Use within a landslip hazard area

This clause does not include Acceptable Solutions. Accordingly, an assessment against the performance criteria has been completed for each section, with a report prepared by a suitably qualified practitioner provided in Appendix I.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That uses, including critical, hazardous or vulnerable use, can achieve and maintain a tolerable risk from exposure to a landslip for the nature and intended duration of the use. | |
| **A1**<br>No Acceptable Solution. | **P1.1**<br>A use, including a critical use, hazardous use, or vulnerable use, within a landslip hazard area achieve and maintain a tolerable risk from exposure to landslip, having regard to:<br>(a) the type, form and duration of the use; and<br>(b) a landslip hazard report that demonstrates that:<br>(i) any increase in the level of risk from landslip does not require any specific hazard reduction or protection measure; or<br>(ii) the use can achieve and maintain a tolerable risk for the intended life of the use.<br>**P1.2**<br>If landslip reduction or protection measures are required on land beyond the boundary of the site, the consent in writing of the owner of that land must be provided for that land to be managed in accordance with the landslip reduction or protection measures. |

**Assessment**

**P1.1**

Hydropower generation is long term, continuous and essential. Appendix I confirms that the Project has been designed to maintain tolerable risk over its 80-year lifespan, consistent with AGS (2007) and Hydro Tasmania's Integrated Business Risk Management framework. The Project will therefore comply with P1.1 of this clause by achieving and maintaining a tolerable risk from landslip.

**P1.2**

No external protection measures are required, as the engineering controls within the Project area will sufficiently provide reduction and protection measures.

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **A2**<br>No Acceptable Solution. | **P2**<br>In addition to the requirements in clause C15.5.1 P1.1, a critical use within a landslip hazard area must achieve and maintain a tolerable risk from landslip, having regard to:<br>(a) the impact on the ability of the use to respond to a landslip event;<br>(b) the impact on ability of the use to function and maintain service during the landslip and recovery period;<br>(c) any interruption to the operation of the critical use in locations external to the immediate impact of the landslip event;<br>(d) the creation of risk to the health or safety of people from damage or disruption to:<br>(i) a water supply service;<br>(ii) an energy supply; or<br>(iii) the drainage and treatment of wastewater;<br>(e) any advice contained in a landslip hazard report; and<br>(f) any advice from a State authority, regulated entity or a council. |
| **Assessment**<br>Although not a critical use (i.e. the Project does not involve emergency or hospital services), the Project is resilient by design and will maintain safe operation, service access, and monitoring systems. As such it is considered to be consistent with P2. | |
| **A3**<br>No Acceptable Solution. | **P3**<br>In addition to the requirements in clause C15.5.1 P1.1, a hazardous use within a landslip hazard area must achieve and maintain a tolerable risk, having regard to:<br>(a) the health and safety of people;<br>(b) any impact on property;<br>(c) any impact on the environment;<br>(d) the advice contained in a landslip hazard report; and<br>(e) any advice from a State authority, regulated entity or a council. |
| **Assessment**<br>The Project will not involve storage of hazardous materials in manifest quantities within any mapped landslip areas. Any residual landslip risks are mitigated through Project design and engineering and will be managed through ongoing monitoring. As such it is considered to be consistent with P3. | |
| **A4**<br>No Acceptable Solution. | **P4**<br>In addition to the requirements in clause C15.5.1 P1.1, a vulnerable use within a landslip hazard area must be protected from landslip, having regard to:<br>(a) any protection measures, existing or proposed;<br>(b) the ability and capability of people in a landslip event who may live, work or visit the site, to:<br>(i) protect themselves;<br>(ii) evacuate in an emergency; and<br>(iii) understand and respond to instructions in the event of an emergency;<br>(c) any emergency evacuation plan;<br>(d) the advice contained in a landslip hazard report; and<br>(e) any advice from a State authority, regulated entity or a council. |
| **Assessment**<br>Although not a vulnerable use, emergency plans will be prepared as part of the Project's operational plans. As such it is considered to be consistent with P4. | |

## 5.16.2 Clause 15.6.1 – Building and works within a landslip hazard area

| ACCEPTABLE SOLUTIONS | PERFORMANCE CRITERIA |
|---|---|
| **Objective:** That **building** and **works** on **land** within a **landslip hazard area** can:<br>(a) minimise the likelihood of triggering a landslip event; and<br>(b) achieve and maintain a tolerable risk from a landslip. | |
| **A1**<br>No Acceptable Solution. | **P1.1**<br>Building and works within a landslip hazard area must minimise the likelihood of triggering a landslip event and achieve and maintain a tolerable risk from landslip, having regard to:<br>(a) the type, form, scale and intended duration of the development;<br>(b) whether any increase in the level of risk from a landslip requires any specific hazard reduction or protection measures;<br>(c) any advice from a State authority, regulated entity or a council; and<br>(d) the advice contained in a landslip hazard report.<br>**P1.2**<br>A landslip hazard report also demonstrates that the buildings and works do not cause or contribute to landslip on the site, on adjacent land or public infrastructure.<br>**P1.3**<br>If **landslip** reduction or protection measures are required beyond the boundary of the **site** the consent in writing of the owner of that **land** must be provided for that **land** to be managed in accordance with the specific hazard reduction or protection measures. |

**Assessment**

P1.1 – As per the landslip hazard report in Appendix I, buildings and works for the Project have been appropriately scaled and designed to ensure durability with respect to the surrounding landscape features and geology. As such, no extraordinary hazard reduction or protection measures are required. Infrastructure design will also comply with relevant geotechnical standards and authority guidance.

P1.2 – Engineering design has ensured stability through drainage and structural safeguards, and destabilisation is not expected.

P1.3 – No offsite protection measures are required; therefore, this section of the clause does not apply.

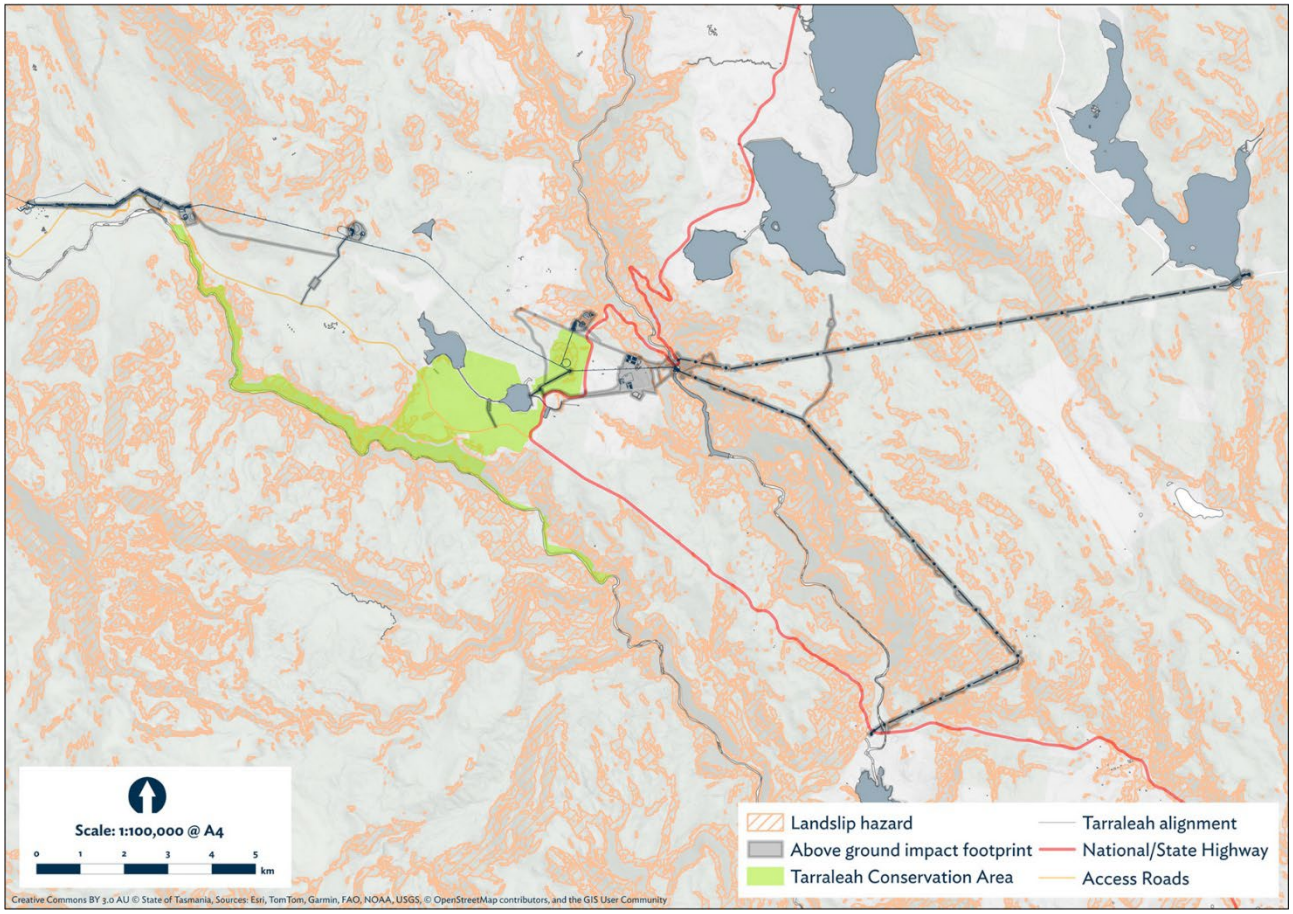



*Figure 5-10: Landslip hazard overlay*

# 6. Conclusion

Hydro Tasmania is seeking a planning permit to redevelop the existing Tarraleah Hydropower Scheme, increasing its capacity from 90 MW to 180 MW in the Tasmanian Central Highlands. The purpose of the Project is to replace end of life assets and provide a more flexible and efficient scheme to ensure a reliable and safe renewable energy source into the future.

Development is proposed across five different zones under the TPS: Village, Rural, Environmental Management, Utilities, and Recreation. The Project is classed as a Utilities use, which is a discretionary use in the Village, Rural, Environmental Management, and Recreation zones.

Twelve zone discretions are triggered by the proposed development:

- **Clause 12.3.1 (P4)** – Gross floor area (Village Zone): construction compound exceeding 250 $m^2$ in gross floor area
- **Clause 12.4.2 (P1)** – Building height (Village Zone): construction compound exceeding 8.5 m in building height
- **Clause 12.4.3 (P1)** – Setbacks (Village Zone): construction compound setback less than 4.5 m
- **Clause 12.4.6 (P1)** – Outdoor storage area (Village Zone): construction compound may be visible from public roads
- **Clause 20.4.1 (P1)** – Building height (Rural Zone): power station and transmission line towers exceeding 12 m in building height
- **Clause 20.4.2 (P1)** – Setbacks (Rural Zone): tunnel portals and headrace pipeline setback less than 5 m of property boundary
- **Clause 23.3.1 (P1)** – Discretionary use (Environmental Management Zone): no acceptable solution provided
- **Clause 23.4.1 (P1)** – Development area (Environmental Management Zone): development area greater than 500 $m^2$
- **Clause 23.4.2 (P1)** – Building height, setback and siting (Environmental Management Zone): surge tower greater than 6 m
- **Clause 23.4.2 (P2)** – Building height, setback and siting (Environmental Management Zone): Suction main inlet connecting pump station to No.2 Pond setback less than 10 m of property boundary.
- **Clause 26.4.1 (P1)** – Building height (Utilities Zone): transmission line towers exceeding 12 m in building height.
- **Clause 26.4.2 (P1) –** Building setback (Utilities Zone): power station eastern boundary setback less than 5 m of property boundary

Nine codes/overlays were relevant to the Project area, of which discretions are triggered under five codes that may be impacted by the Project;

- **Parking and Sustainable Code (C2):** location of loading bays [C2.6.2 (P2)]
- **Natural Assets Code (C7):** vegetation removal and impacts on protected waterways. Under C7.4.1, Level 2 Activities are exempt from assessment under this Code. As the Project is subject to a Level 2 assessment by the EPA, the exemption applies; however, at Council's request, an appraisal of the relevant sections of C7 against all works east of the power station (i.e. works associated with the construction of the transmission line) is provided in Section 5.11.
- **Flood-prone Areas Hazard Code (C12):** sections of the transmission line traversing areas mapped by the Statewide Hazard Map as potential flood areas [C12.5 (P1.1, P1.2), C12.6 (P1.1, P1.2)].
- **Potentially Contaminated Land Code (C14):** the new power station is listed as a potentially contaminating activity under the TPS [C14.5 (P1), C14.6 (P2)].
- **Landslip Hazard Code (C15):** Project elements are located in areas mapped as having exposure to low–medium landslip hazards [C15.5.1 (P1.1-P4), C15.6.1 (P1.1-1.3) *no acceptable solutions*].

As detailed in this planning report, the Project is considered to satisfactorily meet the requirements of the TPS and is recommended for approval.