Statement of Environmental Effects

Khancoban Temporary Workers Accommodation

Prepared for Snowy Hydro Limited

February 2025

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Snowy Hydro Limited

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Executive Summary

Snowy Hydro Limited (Snowy Hydro or SHL) proposes to construct and operate Temporary Workers Accommodation (TWA) on land known as 1,377 Alpine Way, Khancoban (Lot 2, DP 861768) New South Wales (NSW) ('the site'). The purpose of the proposed TWA is to provide accommodation for the anticipated workforce associated with Snowy Hydro projects in the Murray region, specifically the asset overhaul and renewal program for the existing Murray Power Stations 1 and 2. It is noted that 'temporary' refers to the length of stay in relation to the workforce rather than the life of the accommodation itself.

The relevant Murray power stations (known as M1PS and M2PS) are owned by SHL and operated, maintained, overhauled and renewed by both permanent and contractor workforces, the numbers of which vary over time depending on run hours and condition of the assets. M2 is currently subject to a generator repair and turbine uprating project, which will be completed in 2025. Following this, work will commence on the M1 generator refurbishment, including top/bottom cover repairs and replacement.

The work required for the Murray project is extensive and it is envisaged that works will be ongoing for a minimum of ten years, most likely around 15 years, after which the TWA will be decommissioned unless an alternative future use is found (subject to separate future approvals). In addition to the permanent workforce, it is anticipated that the refurbishment and upgrade project will require a much larger number of contract workers to be based in the region for periodic programs of work over an extended period of time. Given the remoteness of the locality, there is an identified need for these workers to be accommodated locally. Consequently, this will increase demand for local 'temporary' accommodation and could potentially impact the availability of local rental housing stock if alternative TWA is not provided.

The proposed TWA would comprise up to 84 modular unit dwellings, made up of 40 'short-term' accommodation units and 44 'long-term accommodation' units. The type of modular unit reflects the length of stay. 'Long-term' units will be reserved for longer stays (generally a month or more) whereas 'short-term' units will typically be occupied for a few days/ weeks. The two types of proposed accommodation are being provided to meet the demands of the proposed workforce, with different contractors requiring accommodation for different periods of time (all on a temporary basis).

The TWA development will include car parking, landscaping, office, communal waste and barbeque facilities and internal roads. It is anticipated that the occupants of the accommodation will use the facilities and services available in Khancoban where feasible / necessary.

Failure to provide adequate housing for those workers near to the proposed Murray power stations upgrade program has the potential for adverse social impacts. These impacts include a possible housing shortage as workers will need to either rent or purchase housing in Khancoban or its surrounding locality (either through lease or purchase arrangements) thereby reducing the ability of vulnerable groups to access housing. A lack of specifically-designed TWA would also impact the retention of workforce required to undertake the Murray (and other nearby) projects required by SHL.

The proposed site at Khancoban has been identified for the purposes of TWA given its proximity to the existing Snowy Hydro infrastructure to be upgraded and township of Khancoban.

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Abbreviations

Abbreviation	Term
ACM	Asbestos Containing Material
ADT	Average daily traffic
AHDD	Aboriginal Heritage Due Diligence
BAL	Basic left turn
BAR	Basic right turn
BYDA	Before You Dig Australia
CEMP	Contrusction phase environmental management plan
CIV	Capital Investment Value
CSM	Conceptual site model
DA	Development application
DDA	Disability Discrimination Act
DECC	(former) Department of Environment and Climate Change
DIDO	Drive-In, Drive-Out
DPHI	Department of Planning, Housing and Infrastructure
EMM	EMM Consulting Pty Limited
EP&A Act	Environmental Planning and Assessment Act 1979
EPIs	Environmental Planning Instruments
FFA	Flora and Fauna Assessment
HA	hectares
HV	High Voltage
km	kilometres
LEP	Local Environmental Plan
LGA	Local Government Area
LV	Low voltage
MRV	Medium Rigid Vehicle
NHL	National Heritage Listed
NSW	New South Wales
PCT	Plant Community Types
PSI	Preliminary Site Investigation (contamination)
REF	Review of Environmental Factors
SEPPs	State Environmental Planning Policies
SHL	Snowy Hydro Limited

Abbreviation	Term
SIA	Social Impact Assessment
SMR	Stormwater Management Report
SVTM	State Vegetation Type Map
SoHI	Statement of Heritage Impact
TIA	Traffic Impact Assessment
TWA	Temporary Workers' Accommodation
UG	Underground
UFP	Unexpected finds protocol

1 Introduction

1.1 Overview

This Statement of Environmental Effects (SEE) supports a Development Application (DA) to Snowy Valleys Council (SVC) for the proposed construction and operation of Temporary Workers' Accommodation (TWA) at 1,377 Alpine Way, Khancoban (Lot 2, DP 861768) New South Wales (NSW) ('the site').

The proposal is to provide accommodation for the anticipated workforce associated with Snowy Hydro projects in the Murray region, specifically the asset overhaul and renewal program for the existing Murray Power Stations 1 and 2, part of the existing Snowy Hydro Scheme. The work required for this project is extensive and it is envisaged that works will be ongoing for a minimum of 15 years. It is anticipated that the refurbishment and upgrade project will require both a permanent workforce and a larger number of contract workers to be based in the region for periodic programs of work over an extended period of time (refer Section 3.1 for further detail). It is noted that 'temporary' refers to the length of stay in relation to the workforce rather than the accommodation itself.

The TWA will comprise:

- short-term workers' accommodation (for stays of approximately a few days to a week): 40 moveable dwelling units (critical)
- project workers' accommodation (for stays of approximately a month or more): 44 moveable dwelling units
- car parking spaces
- office building
- communal waste facilities
- landscaped open areas including recreation and barbeque areas, and
- internal roads.

The TWA will be operated by Snowy Hydro Limited refer Section 1.2 for further details).

The site is zoned RU 5 Village under the Tumbarumba Local Environmental Plan 2010. Development consent is sought pursuant to Section 4.12 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act).

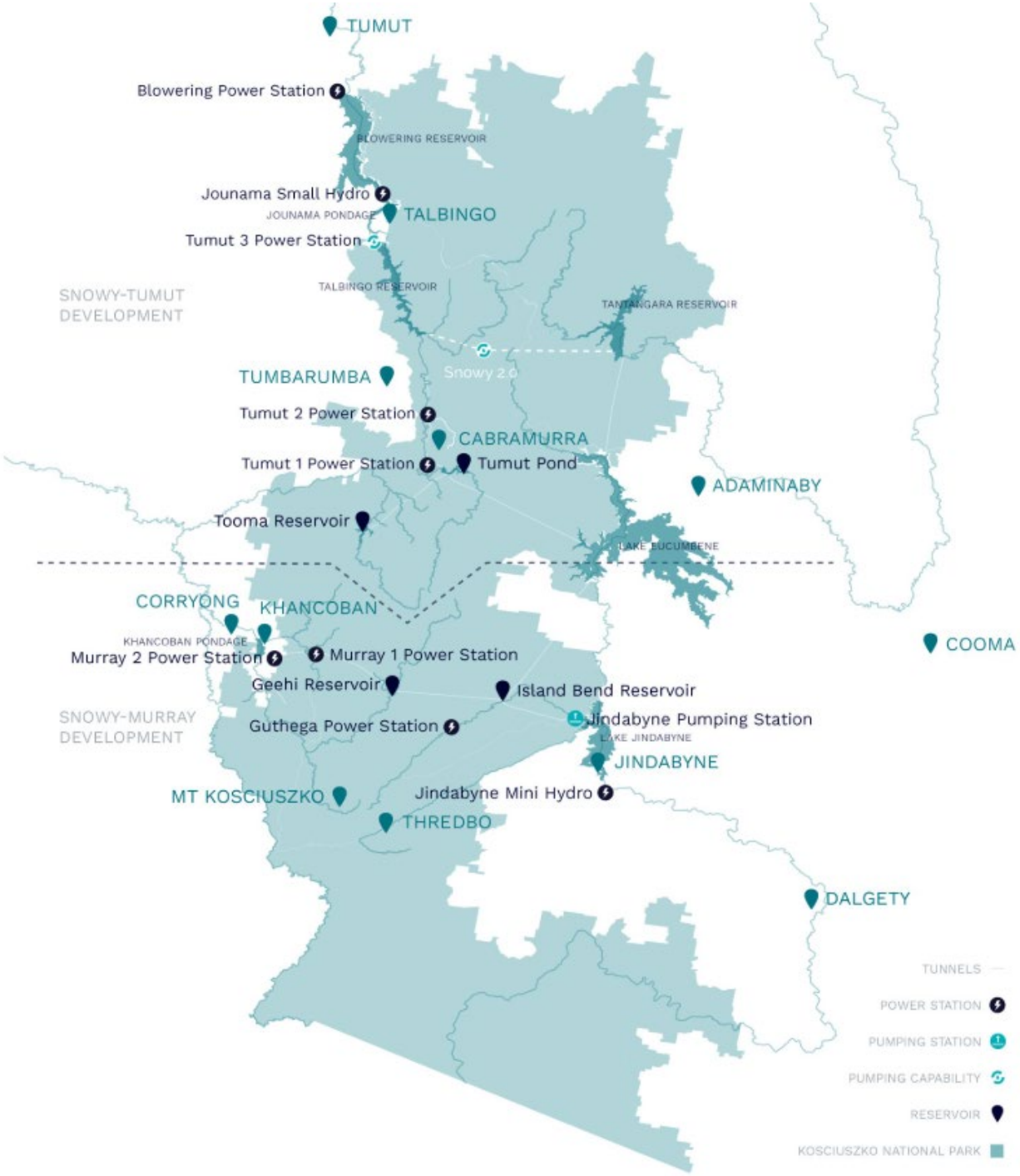
1.2 Applicant

Snowy Hydro is the applicant for the DA.

The applicant's address is: 1 Monaro Highway, Cooma NSW 2630 (postal address is: PO Box 332 Cooma, NSW 2630)

Snowy Hydro is an integrated energy business – generating energy, providing price risk management products for wholesale customers and delivering energy to homes and businesses. Snowy Hydro is the fourth largest energy retailer in the National Electricity Market and is Australia's leading provider of peak, renewable energy.

The Snowy Hydro Scheme consists of eight power stations, 16 major dams, 80 kilometres(km) of aqueducts and 145 km of interconnected tunnels and was constructed in the 1950s and 1960s, with works in Khancoban completed in 1966 (refer Figure 1.1).



Source: Snowy Hydro Limited, 2024

Figure 1.1 Snowy Hydro Scheme

1.3 Report structure

EMM Consulting Pty Limited (EMM) has been engaged by Snowy Hydro to prepare this SEE and to assess the potential impacts of the proposed development pursuant to Part 4 of the EP&A Act. This SEE has been prepared in consideration of Section 4.15(1) of the EP&A Act. The plans (including landscaping plans) and elevations of the proposal are provided in Appendix A.

This SEE describes the site, existing operations, the proposed use of the site, applicable legislative context and stakeholder consultation undertaken. It provides an environmental assessment of the likely impacts associated with the proposal and outlines associated mitigation measures. This SEE is accompanied and supported by the following technical assessments:

- Traffic Impact Assessment (TIA) prepared by EMM (Appendix B)
- Aboriginal Heritage Due Diligence (AHDD) prepared by EMM (Appendix C)
- Statement of Heritage Impact (SoHI) (historic heritage) prepared by EMM (Appendix D)
- Preliminary Site investigation (PSI) (contamination) prepared by EMM (Appendix E)
- Flora and Fauna Assessment (FFA) prepared by Eco Logical (Appendix F)
- Social Impact Assessment prepared by EMM (Appendix G)
- Infrastructure and Utility Services – Investigation Report prepared by Robert Staples & Associates (Appendix G)
- Stormwater Management Report (SMR) prepared by Robert Bird Group (Appendix I)
- Disability Discrimination Act (DDA) compliance statement prepared by SQC Group (Appendix J).

2 Site description

2.1 The site

The site is approximately 5.04 hectares (ha) in area and located on the western side of the Khancoban township (Figure 2.1).

Between the 1860s and 1950s, the area was developed for grazing and farming, resulting in the removal of the overstorey and mid-storey native vegetation and the development of improved pastures with exotic grasses for wool and meat production.

The land has been used by SHL in the past, with the first available aerial (1964) showing a large workshop in the centre of the site, which is cleared of vegetation with a hard-stand surface (refer to Section 5 of Appendix E for a more detailed history of the site). Previous TWA (which has since been removed) is visible in this aerial to the north-east of the site (refer Figure 2.2). By 1998 the site had been cleared of buildings and converted to a managed, modified grassland surrounded by exotic amenity trees to the west, south and east associated with previous SHL development, Alpine Way and Scott Street (refer Figure 2.3). Historical photos of the site are provided in Appendix D.

The site is now cleared of buildings/development and predominantly grassed. There is a stand of trees in the northeast corner, comprising primarily mature cypress trees and the site is screened from Alpine Way by existing avenue planting comprising mainly large cypress trees. There is additional planting of exotic trees, including prunus, liquid ambers and silver birch along the Scott Street frontage, within both the site and the road reserve (refer Figure 2.6).

There is a single storey dwelling immediately opposite the site, on the eastern side of Scott Street, with residential development, public facilities and parkland located further to the east. Land immediately to the south is currently vacant but on the retail market as three, large-lot residential properties. Land to the northwest is developed with the Khancoban National Parks depot while land to the south has a service station and the Khancoban Inn (located on adjacent corners of the intersection of Alpine Way and Scott Street). Khancoban Creek, grazing land and Snowy Hydro Khancoban are located further to the south and southeast. Swampy Plain River and Khancoban Pondage are located west of the site with the Khancoban Airport northwest from the site.

2.2 Zoning

The subject site is located within SVC Local Government Area (LGA) and zoned RU5 Village (Figure 2.5) under the *Tumbarumba Local Environmental Plan* (LEP) 2010. The minimum lot size is 4,000m^2 but it is noted that land immediately to the north-east and east has been successfully subdivided with a minimum lot size of 450m^2 (refer Figure 2.5).

Under the Tumbarumba LEP 2010, 'temporary workers accommodation' is a permitted use with consent. Under the Department of Planning, Housing and Infrastructure's (DPHI) 'Temporary and Seasonal Workers' Accommodation Toolkit', 'modulars' or moveable dwellings are permissible in conjunction with temporary workers' accommodation. Further information regarding permissibility is provided in Chapter 4.

2.3 Soils

The site is underlain by Ordovician parent material and potentially Quaternary alluvial deposits in the south (DPIRD 2024). Soils are likely derived from these parent materials but have been modified by various land uses. The National Acid Sulfate Soil Register categorises the Site as low probability of ASS occurrence while the salinity hazard for the Site is considered very low. No naturally occurring asbestos potential was identified for the Site.

2.4 Topography and hydrology

The Site appears relatively flat with a slight slope from the east to the west and from north-east to south-west. The elevation of the site is between 300 to 320 metres Australian Height Datum (m AHD).

Topographical site features include:

- multiple gravel stockpiles in the centre of the Site with one stockpile also containing wood and plastic mixed with gravel
- footprint of a demolished building (cement slab) in the north-east of the Site
- an exposed septic drain is present near the demolished building
- remnants of possible historical buildings or structures are present in the open west section of the Site (partially covered bitumen)
- carpark near the north-east entrance and trace bitumen remnants in the empty western field
- multiple stormwater drains and two metal poles with wires protruding from the top were present in the north-east carpark area
- one stockpile containing burnt wood, branches, fill material, metal fragments and plastic fragments within the west of the Site
- minor anthropogenic litter across the Site.

2.5 Access arrangements

There is a redundant, gated access from Alpine Way on the southern boundary of the site. Access to the north of the site is provided by two crossings on Scott Street. The northern access is currently gated.

2.6 Ecology

i Flora

A Flora and Fauna Assessment of the site was prepared by Ecological (Appendix F). The site is characterised by modified grassland and exotic amenity tree plantings with no elements of the original native plant community type including overstorey, midstorey of ground layer species present on the site. Prior to the development of the town of Khancoban in the early 1960s, as part of the Snowy Mountains Hydro-Electric Scheme, which included the study area, the area was already cleared and converted to pasture for grazing. As such, all the native vegetation within the study area has been removed and replaced.

The site is characterised by an abundance of non-native tree species (Figure 2.6) including *Cedrus* spp., *Liquidambar* spp., *Populus deltoides* (Common Cottonwood), *Betula alba* (Silver Birch), and *Juglans nigra* (Black Walnut). Additionally, there is an introduction of non-native grasses, flat weeds, as well as invasive vines such as *Rubus fruticosus* (Blackberry) and *Hedera helix* (English Ivy).

The BioNet Atlas search and EPBC Protect Matters Search Tool (PMST) returned a total of 20 threatened flora species and 49 threatened fauna species recorded or potentially occurring within 20 km of the subject site (full list in Appendix F). No threatened species records occurred within the subject site, although one Atlas of Living Australia record for the threatened *Hirundapus caudacutus* (White-throated Needletail) occurs near the boundary of the subject site.

The entire study area is mapped as 'not native vegetation' on the State Vegetation Type Map (SVTM) (DCCEEW 2020) and therefore does not contain any Plant Community Types (PCTs). Additionally, it is important to note that the site recorded no evidence of dominant structuring species in the overstorey, midstorey or ground layer associated with PCT 283, PCT 290 and PCT 305 which are found within 1 km of the site, but not within it.

ii Fauna

The study area provides low-quality fauna habitat because of the historic transformation of the landscape from native vegetation to non-native vegetation. There are no hollow-bearing trees within the study area or immediate surroundings so there is no potential breeding, roosting or denning habitat for hollow-dependent fauna species. The site has no habitat potential for foraging and sheltering of common small mammal species and, there are no rock habitats, logs or dead trees within the study area to provide resources for basking and foraging by reptiles. The study area is highly unlikely to provide a potential habitat for threatened grassland reptiles.

There are no water sources within the study area that provide a habitat for small animals foraging and breeding.

Field surveys were undertaken by Eco Logical on 20 and 21 August 2024 (Appendix F). Table 2.1 contains a list of the fauna species observed on the site.

Table 2.1 Fauna species recorded on the site

Common name	Scientific name
Australian magpie lark	*Grallina cyanoleuca*
Australian magpie	*Gymnorhina tibicen*
Australian raven	*Corvus coronoides*
Crimson rosella	*Platycercus elegans*
Eurasian blackbird	*Turdus merula*
Galah	*Eolophus roseicapillus*
Laughing kookaburra	*Dacelo novaeguineae*
Masked lapwing	*Vanellus miles*
Pied currawong	*Strepera graculina*
Satin bowerbird	*Ptilonorhynchus violaceus*
Sulphur-crested cockatoo	*Cacatua galerita*
Yellow-rumped thornbill	*Acanthiza chrysorrhoa*
Eastern grey kangaroo	*Macropus giganteus*
European Rabbit	*Oryctolagus cuniculus*

The listed bird species are typically found in habitats that have been altered, resulting in reduced plant diversity and less varied plant communities. In undisturbed environments, a rich variety of birds, such as seed eaters, foliage grazers, insectivores, nectivores, omnivores, and carnivores, representing different trophic levels, can be observed. Changes in land use and management can impact the availability of shelter, food, and habitat resources for birds. The land management practices in the study area and its surrounding landscapes have led to the development of mostly modified grasslands with non-native tree species

2.6.2 Services and utilities

Utility services exist within the vicinity of the site and can be provided by Snowy Valleys Council infrastructure and electricity telecommunications infrastructure.

- Water: SVC records show there is an existing reticulated potable water supply servicing the Khancoban Village.
- Sewerage: there is existing reticulated sewerage collection servicing the Khancoban township
- Stormwater: there are existing SVC stormwater drainage assets located within and adjoining the site
- Electricity: There is an 11kV High Voltage (HV) underground (UG) powerline together with switching kiosks along the northwestern boundary of the site. There is a low voltage (LV) overhead power supply line that traverses the north-west corner of the site.
- Telecommunications: Telstra has existing telecommunications infrastructure in close proximity to the site.

2.6.3 Other aspects

The site is not located within an identified bushfire prone area.

2.6.4 Pre-lodgement consultation

Pre-lodgement consultation has focused on:

- internal reviews and planning processes conducted by SHL to understand the current and future accommodation needs of its workforce
    - A Business Case assessed the availability and suitability of existing accommodation options in Khancoban, identified gaps in the current housing stock, and evaluated the feasibility of developing new modular housing on SHL land. With the RFA finalised, SHL is now moving forward with the necessary planning approvals to develop the site as proposed.
- preparation of a Social impact Assessment (SIA) (refer Appendix G for an outline of potential social impacts and benefits of the proposed development). This report includes stakeholder engagement with members of community, comprising six interviews.
- consultation with Snowy Valleys Council and Transport for NSW.

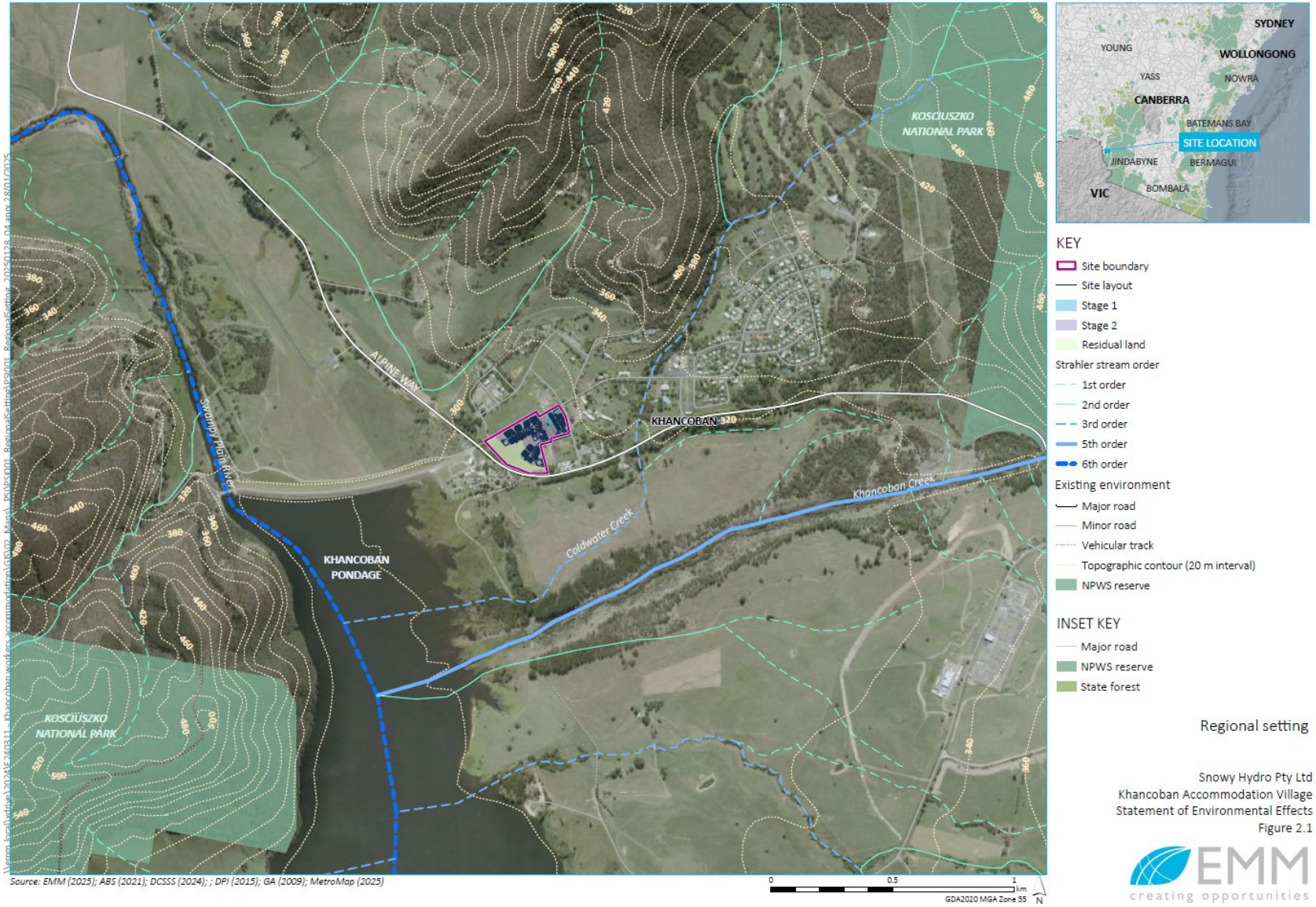


Figure 2.1 Regional setting

Figure 2.2 Site layout

Figure 2.3 Aerial photo 1964

Figure 2.4 **Aerial photo 1988**

2.7 Zoning

Source: Land Insight 2024

Figure 2.5 Zoning of site and surrounds

Figure 2.6 Existing vegetation types

3 Project description

3.1 Need for the development

The purpose of the proposed TWA is to provide accommodation for the anticipated workforce associated with Snowy Hydro projects in the Murray region, specifically the asset overhaul and renewal program for the existing Murray Power Stations. It is noted that 'temporary' refers to the length of stay in relation to the workforce rather than the accommodation itself.

The Murray region is critical to SHL operations, with the Murray power stations owned by SHL and operated, maintained, overhauled and renewed by both a permanent and contractor workforces, the numbers of which vary over time depending on run hours and condition of the assets. M2 is currently subject to a generator repair and turbine uprating project, which will be completed in 2025. Following this, work will commence on the M1 generator refurbishment, including top/bottom cover repairs and replacement.

The work required for this project is extensive and it is envisaged that works will be ongoing for a minimum of 15years. It is anticipated that the refurbishment and upgrade project will require both a permanent workforce and a much larger number of contract workers to be based in the region for periodic programs of work over an extended period of time.

The operational phase of the proposed Snowy Hydro upgrades will require a fluctuating workforce of about 80 – 130 people. While it is anticipated that some of this workforce will be sourced locally, a significant portion of workers will need to be sourced outside of Khancoban and surrounding localities but accommodation shortages for skilled workers are already affecting workforce stability and capacity. The challenge is balancing workforce levels for key projects and operational reliability, while meeting the accommodation needs of both local and transient Drive-In, Drive-Out (DIDO) workers.

Currently, accommodation for Murray projects (overhauls and production) is sourced from a mix of 16 SHL-owned units, 45 employee-owned houses, local rentals in Khancoban and Corryong and nearby caravan parks/hotels/motels. Beyond the 16 SHL-owned units, housing availability fluctuates due to market conditions, staff mobility, and tourism demand, creating uncertainty in meeting operational needs. While some accommodation can house multiple staff, many prefer single rooms with private ensuite facilities, typically unavailable in the region's older housing stock. Older accommodation is less attractive to employees, who may often seek independent living.

Most SHL-owned and regional rental properties fall short of meeting current standards needed to attract and retain skilled workers. Additionally, demand from other contractors further impacts housing availability. With multiple organisations operating in the southern Snowy Valleys, it's difficult to gauge total accommodation needs.

Despite ongoing discussions with local councils and developers, there is no clear indication the private market will meet the growing short-, medium- and long-term accommodation demands necessary to support SHL's workforce as local accommodation are predominantly a short-term solution that does not provide the stable, long-term housing needed to maintain a permanent workforce through to 2040.

Failure to provide adequate housing for those workers near to the proposed upgrade project has the potential for adverse social impacts. These impacts include a possible housing shortage as workers will need to either rent or purchase housing in Khancoban or its surrounding locality (either through lease or purchase arrangements) thereby reducing the ability of vulnerable groups to access housing.

The proposed site at Khancoban has been identified for the purposes of TWA given its proximity to the existing Snowy Hydro infrastructure to be upgraded and township of Khancoban.

3.2 Overview

This application seeks development consent for TWA, comprising two types of modular units being 'short-term' accommodation and 'long-term accommodation'. The type of modular unit reflects the length of stay. 'Long-term accommodation' will be reserved for longer stays (generally a month or more), whereas 'short-term accommodation' will typically be occupied for a few days/weeks. A plan of the proposed site layout is provided in Figure 3.1.

The TWA will comprise:

- short-term workers' accommodation (for stays of approximately a few days to a week): 40 moveable dwelling units (critical)
- project workers' accommodation (for stays of approximately a month or more): 44 moveable dwelling units
- 94 car parking spaces, comprising 84 spaces at a ratio of one per unit and 10 spaces for visitors
- office building
- communal waste facilities
- landscaped open areas including communal recreation and barbeque areas
- internal roads.

No significant tree clearing is proposed beyond that shown in the landscaping plans (Appendix A) and the proposal has been designed to retain as many of the existing trees as possible. Complemented by additional landscaping, the existing and proposed trees will provide visual screening both in and out of the site.

The proposed TWA will have a Capital Investment Value (CIV) of approximately $29 million.

Figure 3.1 **Proposed concept masterplan for Khancoban Temporary Worker's Accommodation**

3.2.1 Operation

Workers and contractors associated with the upgrade program are anticipated to stay at the TWA throughout the construction and operation phases. Additionally, from time to time (and depending on availability), the TWA may also be utilised by Snowy Hydro personnel and contractors for broader Snowy-related activities. Generally, personnel sourced from outside of the Khancoban locality will occupy the TWA.

Upon arrival, personnel will report to the administration office to 'check-in' and obtain keys for a unit. Depending upon their length of stay, they will either occupy a 'short-term accommodation' unit or 'long-term accommodation' unit. During their stay, occupants will have access to the TWA's communal facilities. However, it is anticipated that occupants will also access services in Khancoban (ie. public swimming pool and golf course).

It is anticipated that the TWA will operate utilising a local sub-contracted workforce.

The proposed TWA will be operated by Snowy Hydro for the duration of the Snowy Hydro upgrade project (Murray region) which is expected to last for a minimum of ten years, with an expected lifespan of at around 15 years.

i Access and parking

a Car parking

The TWA will be serviced by 94 car parking spaces. Each modular unit will be provided a car parking space (84 spaces). Other parking will be provided for visitors.

ii Traffic

a Access and egress

Cars, buses/minivans, and delivery trucks will enter and exit the site via the existing driveway at Solomon Lane. No access will be provided to Boobah Street. It is envisaged that minor upgrade and tie-in works will be required where the existing driveway meets the internal road.

b Traffic movement

Estimated vehicle movements during the operational phase of the TWA are provided in Table 3.1.

Table 3.1 Peak vehicle movements during operation

Vehicles	Peak movements per day
Light passenger vehicles	80-160
Buses and or minivans	0
Delivery truck	1-2

Note: A vehicle trip is defined as a vehicle entering the site (1 movement) and a vehicle exiting a site (1 movement).

iii Operation waste

A designated waste collection point will operate near to the administration office and will be used for the staging of bins for the temporary storage of waste. Waste will be removed from site by contractors as required. Waste will be transported and disposed of at an appropriate licenced facility.

3.2.2 Construction

i Main activities

The total construction period of the proposed TWA is expected to take about 18 months in total, with Stage 1 taking around six months, while Stage 2 will take around 12 months. Fabrication of the modular accommodation units will be carried out in a factory and then completed modules will be delivered to site for installation. Cranage is required for installation of three to four units in Stage 1 and no further cranage is anticipated after that.

Construction is expected to utilise a construction workforce with an average of about 20 people, and will involve:

- site establishment and preparatory works including clearing and grubbing
- implementation of temporary fencing, safety barriers, signage and hazard identification for safety and security measures
- creation of safe access points for workers and vehicles
- soil erosion and sediment control works
- management of dust, noise, runoff during construction and compliance to environmental regulations
- confirmation and relocation of any affected services which will need to be relocated or required to be made safe to allow construction to proceed
- earthworks, including:
    - clearing and stripping of topsoil and vegetation (excavated topsoil will be stockpiled for reuse on site)
    - minor cut and fill where required to provide a level area for car parking and setting of buildings
    - trenching to install services (power, telecommunications, water, waste) and drainage
    - laying of asphalt or concrete for car parking areas and internal roads
    - clearing and stripping of topsoil and vegetation (excavated topsoil will be stockpiled for reuse on site)
- creation and demarcation of dwelling sites
- construction of concrete pads and footings for buildings and outdoor recreation areas
- installation of modular accommodation on concrete pads within dwelling sites
- construction and installation of other communal facilities
- line marking at Alpine Way / Scott Street intersection
- service connection to buildings
- finishing works including line marking, signposting, construction of footpaths and recreation/barbeque areas, landscaping works, and lighting.

ii Construction hours and scheduling

The construction hours will be consistent with the NSW EPA's *Interim Construction Noise Guideline* (DECC 2009) recommended standard construction hours:

- Monday to Friday: 7 am to 6 pm
- Saturday: 8 am to 1 pm; and
- no work on Sundays and public holidays.

Construction will be staged in the following manner:

- clearing and grubbing – approximately 2 weeks
- site preparation – approximately 1 month; and
- construction – approximately 18 months.

iii Plant and equipment

An indicative list of plant and equipment likely to be required for the construction of the proposed TWA is provided below in Table 3.3. Note that not all the equipment identified below will be required for all phases of the proposed construction.

Table 3.2 Indicative construction equipment

Backhoes	Dump trucks	Pneumatic jackhammers
Skid steers	Rigid tippers	Bulldozers
Excavators	Concrete agitators	Flatbed Hiab trucks
Rollers	Trenchers	Semi- Trailer
Cranes	Transport trucks	Generators
Grader	Compacter	Paving machine
Hydraulic jack lift trailer trucks		

iv Traffic

The proposed construction works will cause a temporary increase in traffic movements. Construction vehicles will comprise:

- cars to transport site personnel and equipment
- rigid trucks to transport plant and equipment and site components
- dump trucks for removal of materials from the site including excess soil
- semi-trailers for the delivery of short-term stay accommodation
- hiab trucks for the delivery of long-term stay accommodation
- concrete agitators
- asphalt delivery rigids.

The peak daily light and heavy vehicle movements expected during each construction stage is summarised in Table 3.3.

Table 3.3 Heavy vehicle numbers (daily)

Heavy vehicles	Anticipated daily vehicle numbers
Rigid trucks	3
Dump trucks	2
Semi-trailers	2
Hiab trucks	2
Concrete agitators	2
Asphalt delivery rigids	3
Total	**15**

It should be noted that the expected vehicle movements described above are inclusive of all construction stages occurring at the same time and are not expected to occur every day throughout the 18 month construction period. The peak predicted heavy vehicle movements for any one stage would be a maximum of 15 per day.

v Construction waste

All waste generated during construction will be managed in accordance with the NSW *Waste Classification Guidelines* (EPA 2014), NSW *Protection of the Environment Operations Act 1997* and the NSW Protection of the Environment Operations (Waste) Regulation 2005.

Snowy Hyrdro will endeavour to reuse excavated material and green waste for fill and landscaping works. Recycled off-concrete slabs and asphalt will be retained, where possible. Construction waste will be disposed of to an appropriately licenced facility.

3.3 Decommissioning

At the completion of the proposed Murray upgrades, it is anticipated that the TWA will no longer required. At that time Snowy Hydro will evaluate the future use of the site. It is likely that the TWA will be de-commissioned at this point. Any future use of the site following completion of the Snowy upgrade project will be subject to separate discussion with SVC and any approvals required.

3.4 Consideration of alternatives

3.4.1 Alternative site

During the preparation of the proposal, SHL considered several alternatives to address the identified accommodation shortfall, including:

- leasing existing properties within Khancoban
- partnering with third-party accommodation providers
- developing new modular housing on SHL-owned land
- doing nothing.

The analysis concluded that developing modular accommodation on the site offers the best balance of proximity to operational sites, flexibility to meet changing workforce needs and cost-effectiveness. This option also avoids the uncertainties associated with leasing or third-party partnerships and provides the necessary control over the quality and suitability of the accommodation provided.

3.4.2 Do nothing

Without adequate housing for the non-local workforce, those workers will either need to purchase housing or rent in Khancoban or surrounding localities thereby increasing the cost of housing and renting. The availability of housing, particularly within the rental housing market in Khancoban, is low. This is supported by rental market trends evidenced from various property websites and anecdotal evidence from the local community (refer Section 6.4). The additional pressure on housing supply may pose a risk to vulnerable groups within Khancoban and the surrounding locality. Underemployment is a pre-existing concern within the locality and there is potential that people could move from 'at risk' to homeless and the number of homeless could increase.

Additionally, with the projected increases in construction and operational workforces, workers from outside of Khancoban and surrounding localities may be forced to either drive longer distances to work.

Therefore, not proceeding with the proposed TWA would most likely result in negative social impacts and put the Murray overhaul project at risk through lack of enticement of the required skilled workforce.

4 Statutory context

The following section identifies the applicable state planning legislation and Environmental Planning Instruments (EPIs) and discusses the relevant planning approval process applicable to the proposed development.

4.1 NSW legislation

4.1.1 Environmental Planning & Assessment Act 1979

The EP&A Act is the principal environmental planning legislation in NSW. Implementation of the EP&A Act is the responsibility of the Minister for Planning, statutory authorities and local councils. Amongst other objectives, it aims to facilitate ecologically sustainable development, by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.

Section 4.5 of the EP&A Act specifies the relevant consent authority. The proposed project is not State significant development, regionally significant development, or development that requires the consent of another public authority (other than council), therefore SVC is the consent authority for the proposed development (section 4.5(d) of the EP&A Act).

The proposed development does not fall within the declaration of the 'Snowy 2.0 and Transmission Project' as critical State significant infrastructure pursuant to Schedule 5, clause 8 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). This is because the proposed accommodation is primarily for the workers associated with the Snowy Hydro Murray power station upgrades, as well as for other Snowy Hydro personnel and contractors more generally working in and around Khancoban.

i Matters for consideration

In determining a development application, a consent authority is to consider those matters under Section 4.15(1) of the EP&A Act. These matters and where they are addressed in this SEE are detailed in Table 4.1.

Table 4.1 Section 4.15(1) matters of consideration

Section 4.15(1) matter for consideration		Comments/where addressed
(a) the provisions of:		
i)	any environmental planning instrument, and	The relevant planning instruments are addressed in Section 4.2.
ii)	any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred definitely or has not been approved), and	There are no proposed instruments relevant to this DA.
iii)	any development control plan, and	The Snowy Valleys Development Control Plan (DCP) 2024 is relevant to the proposal and is addressed in Section 4.2.1.

Table 4.2 Section 4.15(1) matters for consideration

Section 4.15(1) matter for consideration		Comments/where addressed
iv)	any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and	There are no planning agreements relevant to this DA.
v)	the regulations (to the extent that they prescribe matters for the purposes of this paragraph) that apply to the land to which the development application relates,	The requirements of the EP&A Regulation are addressed in Section 4.1
(b)	the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	This SEE comprehensively describes the likely impacts of the proposal, including environmental impacts on both the natural and built environments, and social and economic impacts in the local area and region.
(c)	the suitability of the site for the development,	It is considered that the subject land is suitable for the proposed development due to its proximity to the Murray power stations and community facilities and services within the township of Khancoban. Existing land use, zoning, and characteristics are described in Chapter 2.
(d)	any submissions made in accordance with this Act or the regulations,	This SEE will be placed on public exhibition and submissions will be sought from relevant agencies and the community. It is anticipated that any submissions received by SVC will be forwarded to Snowy Hydro to consider and respond to.
(e)	the public interest.	To assist SVC in determining whether the proposal is in the public interest, this SEE provides a justification for the proposed development, taking into consideration its potential environmental impacts and the suitability of the subject land.

4.1.2 Integrated development

Section 4.46 of the EP&A Act identifies development that is 'integrated development'. Integrated development is development (not being State significant development or complying development) that, in order for it to be carried out, requires development consent and one or more approvals from other government agencies under certain NSW legislation.

The proposed development does not require one or more approvals from other government agencies specified in Section 4.46 and therefore, it is not integrated development.

4.1.3 NSW Environmental Planning and Assessment Regulation 2000

Part 6 of the EP&A Regulation details procedures relating to DAs. Schedule 1 of the EP&A Regulation relates to the preparation of DAs and in particular, clauses 1 and 2 of this schedule prescribe the information required to be provided in the DA and the documents to accompany a DA. The Schedule 1 requirements, and where they are addressed in this SEE, are set out in Table 4.3

Table 4.3 Schedule 1 requirements for a development application

Schedule 1 requirement	Comment/where addressed
(a) the name and address of applicant	Section 1.2
(b) a description of the development to be carried out	Section 3.2
(c) the address, and formal particulars of title, of the land on which the development is to be carried out	Section 2.1
(d) an indication as to whether the land is, or is part of, critical habitat,	Section 2.6
(e) an indication as to whether the development is likely to significantly affect threatened species, populations or ecological communities, or their habitats, unless the development is taken to be development that is not likely to have such an effect because it is biodiversity compliant development.	Section 3.2
(ea)for biodiversity compliant development, an indication of the reason why the development is biodiversity compliant development.	N/A
(f) a list of any authorities from which concurrence must be obtained before the development may lawfully be carried out or from which concurrence will have been required but for section 4.13(2A) or 4.41.	SVC may seek concurrence from other public authorities prior to determining this application.
(f1) in the case of an application that is accompanied by a biodiversity development assessment report, the reasonable steps taken to obtain the like-for-like biodiversity credits required to be retired under the report to offset the residual impacts on biodiversity values if different biodiversity credits are proposed to be used as offsets in accordance with the variation rules under the *Biodiversity Conservation Act 2016*,	N/A
(f2) if the land is subject to a private land conservation agreement under the Biodiversity Conservation Act 2016, a description of the kind of agreement and the area to which it applies,	N/A
(g) a list of any approvals of the kind referred to in section 4.46(1) of the Act that must be obtained before the development may lawfully be carried out,	Section 4.1.2
(h) the estimated cost of the development,	Section 3.2
(h1) if the land is subject to a private land conservation agreement under the Biodiversity Conservation Act 2016, a description of the kind of agreement and the area to which it applies,	The land is not subject to a conservation agreement under the *Biodiversity Conservation Act 2016.*
(i) evidence that the owner of the land on which the development is to be carried out consents to the application, but only if the application is made by a person other than the owner and the owner's consent is required by this Regulation,	Owner's consent has been provided on the DA form.
(j) a list of the documents accompanying the application.	A list of documents has been provided on the cover letter.

4.1.4 Local Government (Modular Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2021

The *Local Government (Modular Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation* 2021 covers the granting of approvals to operate modular estates including requirements for land, sites, setbacks, roads and utility services for these types of accommodation.

Planning Circular PS 21-016 *Approval to install relocatable and flat-pack homes outside a caravan park of modular estate* provides clarification on the approval requirements for the installation of transportable homes on land that is not part of a caravan park or TWA. Given the proposal is for TWA, the requirements of this regulation are not applicable.

4.2 Environmental planning instruments

Environmental Planning Instruments (EPIs) is the collective term for Local Environmental Plans (LEPs) and State Environment Planning Policies (SEPPs). Those EPIs that are applicable to the proposed development are addressed in this section.

4.2.1 Tumbarumba Local Environment Plan 2010

The site is zoned RU 5 Village under the Tumbarumba Local Environmental Plan 2010. Sections 1 to 4 of the Zone RU 5 Village state the following:

1 Objectives of zone

- To provide for a range of land uses, services and facilities that are associated with a rural village.
- To ensure development is undertaken in a manner that minimises impacts on adjoining properties.

2 Permitted without consent

Building identification signs; Home occupations; Public administration buildings

3 Permitted with consent

Centre-based child care facilities; Community facilities; Dwelling houses; Light industries; Neighbourhood shops; Oyster aquaculture; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Respite day care centres; Roads; Schools; Tank-based aquaculture; Any other development not specified in item 2 or 4

4 Prohibited

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat launching ramps; Boat sheds; Cellar door premises; Charter or tourism boating facilities; Correctional centres; Crematoria; Eco-tourist facilities; Extractive industries; Farm buildings; Farm stay accommodation; Forestry; Heavy industrial storage establishments; Helipads; Industrial retail outlets; Industrial training facilities; Industries; Jetties; Open cut mining; Restricted premises; Rural workers' dwellings; Sex services premises; Waste or resource management facilities; Water recreation structures; Wharf or boating facilities

The proposed TWA was identified as a mitigation measure in the SIA for the proposed Murray upgrade project to alleviate pressure on existing housing supply in Khancoban.

The proposed development meets the zoning objective by providing temporary housing for a community of workers in a location that is near to existing facilities and services and that will integrate well with the surrounding context and established character.

Under the existing RU5 land use zoning, TWA is an innominate use. An innominate use is one which is not specifically referred to in a land use table and therefore the planning controls are subjective. The usual practice is to use the most relevant controls that are applicable to another use, but different controls can be sought through justification in the SEE. Notably however, caravan parks are permitted with development consent. The proposed development is therefore permissible with development consent pursuant to the Tumbarumba LEP.

Snowy Valleys Council DCP 2024

Section 4.6 of the Snowy Valleys Council Development Control Plan 2024 (SVC DCP 2024) applies to second hand and/or relocatable dwellings. The provisions are as follows:

> 4.6.1 General requirements
>
> Second hand/relocatable dwellings are also subject to those development controls applying to the relevant location/zoning.
>
> In addition to controls contained in this DCP the following are applicable to these types of dwellings:
>
> - The appearance of second hand or relocatable dwelling must be compatible with or complementary to the existing streetscape, character and standard of surrounding development in the area,
> - The external appearance of a second hand or relocatable dwelling is to be in keeping with the likely standard of future new development in the locality, and second hand or relocatable dwellings are to be in a sufficiently safe condition.

4.2.2 State Environmental Planning Policy (Resilience and Hazards) 2021

State Environmental Planning Policy (Resilience and Hazards) 2021 (SEPP Resilience and Hazards) applies to the state and provides a planning framework for the remediation of contaminated lands, designed to reduce the risk of harm to human health and the environment. Under SEPP Resilience and Hazards, a consent authority must not consent to the carrying out of development on land unless it has considered potential contamination issues. Clause 4.6 requires a consent authority to take into consideration contamination and remediation in all development applications.

A PSI was undertaken by EMM. The PSI included a desktop review of historical records, plans, photographs, maps, and land title information to assess whether historical or present activities have the potential to or have caused contamination that may impact on the future development of the site.

Areas of potential contamination were identified to include former buildings/structures including a potential septic network, waste stockpiles and potential imported fill material, historic use of herbicides and pesticides and the service station adjacent to the south-east corner of the Site. Soil contamination, if present, is expected to be limited and located within discrete areas. There is a low potential for contaminated groundwater associated with the service station operations to be present onsite via groundwater migration.

4.2.3 Temporary and Seasonal Workers' Accommodation Toolkit Guidelines

In 2023, the NSW Department of Planning and Environment (now known as Department of Planning, Housing and Infrastructure) released the 'Temporary and Seasonal Workers' Accommodation Toolkit Guidelines' to provide clear and practical guidance to regional councils on managing spikes in housing demand from seasonal and temporary workers. It was anticipated that the final toolkit would be released in 2024, however the DPHI website has not been updated to indicate any updated timing of this release.

The toolkit defines temporary workers' dwellings as:

> housing provided on a temporary basis for workers who need accommodation for the life of a project or season. Temporary workers' dwellings can be either close to the project or located near a town centre. This type of housing can accommodate fly-in-fly-out workers for mines, construction workers for large-scale infrastructure projects or temporary accommodation for seasonal workers such as those in the tourism or agricultural sectors.

This land use is currently not defined in planning legislation. Table 1 of the Guidelines states that the duration of use must be linked to the life of the project, and it can be on-site or off-site, which is the case for the SNL Khancoban proposal. Temporary workers' accommodation provides greater flexibility and can facilitate critical worker housing on a larger scale.

The *Explanation of Intended Effect – Temporary Workers' Accommodation* (DPE, August 2023) identifies that specific provisions for temporary workers' accommodation have been introduced into several existing local environmental plans by some councils. These local provisions have defined the use and set out the requirements for where and on what basis the development is permissible with development consent. This demonstrates that the defined use has been successfully used in the planning pathway for similar projects. The *Explanation* goes on to state:

> There are various pre-conditions for planning consent. Many directly reflect the clause objectives. The most common pre-conditions include a requirement:
>
> - to demonstrate the need for the accommodation, including its nature, scale and location
> - to provide adequate infrastructure for the development including water, wastewater, power and roads
> - that the use will not prevent the land from being used in other ways in the future and that the land must be restored

It is noted that the Guidelines set out that temporary workers' accommodation is temporary and should be decommissioned at the end of its use. However, an operator may lodge a development application to change the use of the temporary workers' building for other purposes. Approval to use the building for other purposes will be subject to the consent authority's assessment and determination.

5 Stakeholder consultation

5.1 Snowy Valleys Council

A pre-lodgement meeting was held with EMM, Snowy Hydro and SVC representatives on 9 September 2019. An overview of the proposed development was provided by EMM and planning and environmental considerations were discussed.

Ongoing engagement with SVC was established which continued throughout the preparation of this SEE.

5.2 Community

EMM undertook consultation with surrounding residential and business neighbours in December 2024. The results of that consultation are summarised in the SIA (Appendix G).

6 Environmental assessments

6.1 Introduction

A number of environmental factors were assessed in detail to determine the environmental impacts associated with the proposed development, including (but not limited to):

- traffic and transport
- ecology
- aboriginal and cultural heritage
- contamination
- social impact
- services and infrastructure

The assessment reports are provided as appendices and summarised in the following sections. Environmental factors for the proposed development that are required to be considered under clause 228 of the EP&A Regulation are also addressed in this section.

6.2 Traffic

A traffic impact assessment was prepared to assess the potential traffic impacts of the proposed development. The TIA is included in Appendix B of this report.

6.2.1 Existing environment

i Road network

The key roads in the vicinity of the project and their administrative hierarchy are shown below in **Error! Reference source not found.**a to **Error! Reference source not found.**c and include:

- Alpine Way – a State/Regional road The State Road classification begins at Kosciuszko Road, Jindabyne in the east, and ends approximately 1.2 km east of Alpine Way/Scammel Street intersection in the west. The regional road classification begins at approximately 1.2 km east of Alpine Way/Scammel Street intersection in the east. Alpine Way is a sealed road which generally runs east-west and is one lane each way, excluding near intersections. It is approximately 6 m wide, with a posted speed limit of 60 km/h in the vicinity of the site and 100 km/h outside of towns. The road provides connection between townships and acts as an urban local road within towns. The road is approved for heavy vehicles up to 19 m long and up to50 tonnes (t).

- Scott Street – a local road in Khancoban, starting at Nankervis Street at the north and ending at Alpine Way at the south. Scott Street is a sealed road which generally runs north-south and is one lane each way. It is approximately 7 m wide and has a posted speed limit of 50 km/h. The road provides local access to properties and is approved for heavy vehicles up to 19 m long and 50 t.

The proposal will be accessed on Scott Street via Alpine Way. The Alpine Way/Scott Street intersection is the only intersection in the vicinity of the site that will be impacted by construction and operational phases of the project. The intersection is approximately 150 m from the site and is a priority controlled T-intersection (give way). It is a one approach and one departure lane from the north, west and west approach. Footpaths are provided on the

north side of Alpine Way, however there is no pedestrian connectivity between the two footpaths at this intersection. The posted speed limit is 60 km/h on Alpine Way and 50 km/h on Scott Street.

ii Existing traffic volumes

As agreed in the meeting with TfNSW and Council on Tuesday 6 August 2024, a 24-hour traffic volume count has been undertaken between 12 pm Friday 9 August 2024 to 12 pm Saturday 10 August 2024 (during a non-school holiday period) to identify a single peak hour (as opposed to finding both the AM and PM peak hour).

The peak hour was identified to be on Friday afternoon between 3:15 pm to 4:15 pm. The traffic volumes show that:

- Alpine Way carries approximately 75 vehicles during the peak hour
- most of the vehicles travelling on Alpine Way are light vehicles.

Over the 24-hour period that the intersection was surveyed, it was found that there were:

- 297 vehicles travelling in the eastbound direction along Alpine Way
- 317 vehicles travelling in the westbound direction along Alpine Way
- a total of 614 vehicles travelling along Alpine Way.

iii Tube counts

Six months of tube count data for the entrance to Khancoban, adjacent to Khancoban Airport, has been provided by SVC. The tube count data shows that the average daily traffic (ADT) volumes for vehicles travelling eastbound on Alpine Way are:

- 243 vehicles on Fridays
- 191 vehicles on Saturdays.

There are 297 vehicles travelling eastbound on the same section of Alpine Way over a 24-hour period, according to the intersection survey, which is higher than the tube count volumes. Therefore, the resultant peak hour volumes captured from the intersection survey are considered to be conservative representation of the background traffic volumes and will be used for traffic analysis in the TIA.

iv Crash data analysis

Crash data from TfNSW Centre for Road Safety interactive history database for five available years between 2018 and 2022 (inclusive) has been studied within approximately 7 km of the site. A total of eight crashes were found to have occurred on the State and regional road network. There were no minor injuries or fatalities recorded. All of the crashes involved a vehicle running off the road.

The number of crashes is considered to be low over the five year period. Furthermore, there is no recorded crash at Alpine Way/Scott Street intersection; hence the road network in the vicinity of the site can be considered safe.

v Bus services

There are no public transport services in Khancoban. The nearest town with a public transport service is Corryong, Victoria, located 27 km to the west of Khancoban.

There are school buses along Alpine Way in the vicinity of the site. Consideration of the school buses need to be incorporated in Driver's Code of Conduct that will be prepared for this site.

vi Active transport

A shared walking and cycling path run along the north side of Alpine Way in the vicinity of the site.

There are a number of walking trails in the vicinity of the site, of which the most notable is the National Trail, also known as The Bicentennial National Trail. The National Trail passes through Khancoban at Pendergast St on the north side and continues south of Alpine Way and the site via the shared walking and cycling path.

vii Parking

There is currently no on-street parking on Alpine Way. Some off-street parking is located in front of the Alpine Café on the east side of Scott Street.

6.2.2 Potential impacts

i Intersection performance

The key intersections have been modelled with the SIDRA Intersection 9.1 software. The modelling is based on the 2024 baseline traffic volumes, development traffic volumes and cumulative traffic volumes.

The key findings from the assessment for Alpine Way/Scott Street intersection are outlined below:

- In the PM peak hour, the intersection performs well within capacity with a LOS A (good operation) for all scenarios.
- The intersection can easily accommodate the site's development traffic volumes without significantly affecting its operation.

ii Austroads turn warrant assessments

As highlighted by the Austroads analysis (which assesses safety of intersections), the existing road geometry at Alpine Way/Scott Street intersection does not meet the relevant Austroads standard. Upgrades to the Alpine Way/Scott Street intersection are recommended to include widening to allow for semi-trailers up to 19 metres (m) long (to accommodate the swept path of such a vehicle), realigning the shared path on both sides of Scott Street, and modifying driveways leading to the service station and Alpine Inn, while preserving trees on the southern side of Alpine Way. The widening of the intersection is based on the swept path assessments by 19 m long semi-trailer which is a general access vehicle for any public road. However, it is also anticipated that the housing modules are only 9 m long and are likely to be delivered with flatbed trucks, equivalent to a 12.5 Heavy Rigid Vehicle (HRV). It is envisaged that these vehicles will be able to turn safely left into Scott Street from Alpine Way and right out of Scott Street from Alpine Way.

The Austroads assessment indicates that a basic left turn (widened shoulder) is recommended to be introduced on Alpine Way's west approach for left turns, and a basic right turn treatment is recommended to be added for right turns. Notwithstanding, it is noted that it is highly unlikely that a semi-trailer associated with the construction of the TWA would need to turn east from Scott Street (or the converse) as the road east past Khancoban becomes unsuitable for that type of vehicle. Additionally, tree trimming on the northwest side of Alpine Way will improve sight distances at the intersection.

Given the low forecast traffic volumes, Snowy Hydro should not bear the responsibility for upgrading an existing road deficiency which has been in its current state for many years and is used by other recent developments including a 26-lot subdivision and upgrade of the Alpine Inn. Notwithstanding, the proponent is willing to work with Snowy Valleys Council (SVC) and Transport for NSW (TfNSW) to improve road user safety at this intersection if required, but Snowy Hydro should not incur any financial responsibility for upgrades as this issue predated the development and remains the responsibility of the relevant road authorities.

The TWA will offer 94 parking spaces, which is sufficient to accommodate up to 84 workers and 10 visitors. A design review confirms that the car park allows access for emergency vehicles, as verified through a swept path analysis, and meets Australian standards. Waste collection will occur from Scott Street.

Overall, the proposed development is not expected to significantly affect the surrounding road network.

iii Public transport, pedestrians and cyclists

Public transport availability is limited along Alpine Way and there are school bus routes. Therefore, the modification will not impact public transport services.

While there are many hiking and mountain biking trails within proximity of the project location, these trails are off-road and thus will not be impacted by the proposed modification. In addition, the surrounding mountainous terrain limits the movements of cyclists.

iv Parking provisions

While Council's DCP does not have any stipulated parking rates, it is recommended that one car parking space is provided per unit (totalling 84 spaces), plus another 10 spaces for visitors. A total of 94 car parking spaces will be provided. This will be sufficient to accommodate 84 workers and 10 visitors.

v Car park design review

A car park has been reviewed in accordance with AS2890.1, 2 and 6. The swept path assessment shows that the site will be accessible by emergency vehicles eg 8.8-m-long Medium Rigid Vehicle (MRV).

In summary, the proposed car park and internal road network is compliant to relevant Australian Standards.

vi Concept plan of Alpine Way/Scott Street intersection

A concept plan has been prepared for Alpine Way/Scott Street intersection. Upgrades to Alpine Way/Scott Street intersection could include:

- intersection widening to accommodate the largest vehicle turning at the intersection, which would be a 19 m long semi-trailer. Notwithstanding, it is anticipated that housing modules are likely to be delivered with flatbed trucks, equivalent to a 12.5 Heavy Rigid Vehicle (HRV).
- realignment of the shared path on both sides of Scott Street
- adjustment of the driveways to the service station and Alpine Inn
- retaining the trees on the southern side of Alpine Way.

The concept plan is shown in Figures 6.1a-6.3c in Appendix B .

6.2.3 Conclusion

Traffic analysis using SIDRA software (which assesses intersection capacity) indicates that the Alpine Way/Scott Street intersection, which operates under give-way control, will maintain a good level of service (LOS A) with a degree of saturation (DOS) below 0.1, meaning the additional traffic from the development will have **minimal** impact on the intersection.

An Austroads assessment has determined that there is an existing safety deficiency at the intersection of Scott Street and Alpine Road. As requested by TfNSW, a concept has been prepared recommending upgrades to the intersection including widening to allow for semi-trailers up to 19 metres (m) long (to accommodate the swept

path of such a vehicle), realigning the shared path on both sides of Scott Street, and modifying driveways leading to the service station and Alpine Inn.

It is noted that the current geometry at Alpine Way/Scott Street intersection does not meet the relevant Austroads standard. Snowy Hydro should not bear the responsibility for upgrading an existing road deficiency for 30 left-turning and 70 right-turning volumes (worst case scenario) during the peak period which has been in its current state for many years.

Further:

- it is not envisaged that larger vehicles associated with construction will be turning coming from, or departing, Scott Street in an easterly direction; and
- it is anticipated that the housing modules are only 9 m long and are likely to be delivered with flatbed trucks, equivalent to a 12.5 Heavy Rigid Vehicle (HRV).

The project will be implemented in two stages, hence the traffic volumes at this intersection will increase progressively. Notwithstanding, the proponent is willing to work with SVC and TfNSW for a short and long term solution to improve road user safety at this intersection, However, they will not incur any financial responsibility for the implementation of these measures.

Overall, the proposed development is not expected to significantly affect the surrounding road network.

6.3 Aboriginal heritage

An Aboriginal Heritage Due Diligence (AHDD) has been prepared for the proposal by EMM and is provided in Appendix C. The AHDD assesses the potential for Aboriginal heritage impacts across the entirety of the study area (the entirety of the site and immediate surrounds) and investigates constraints and opportunities pertaining to existing and potential Aboriginal heritage sites and/or places within or in the immediate vicinity of the study area.

6.3.1 Existing environment

The environmental context was established through a desktop review and was used predict the spatial distribution, preservation, and likelihood of identifying Aboriginal cultural heritage.

Landscape features and their associated resources were an important factor for the choice of camping, transitory and ceremonial areas used in the past by Aboriginal people. Natural resources, including raw stone materials and local flora and fauna, would have provided food, tools, and material resources. These resources are linked to the topography, hydrology, geology, and soil types in the region. Additionally, natural and anthropogenic (human-made) site formation processes influence the potential for Aboriginal cultural heritage to be present in an area.

i Bioregion and geology

The study area is situated within the Australian Alps bioregion, the smallest bioregion in New South Wales, with alpine habitat having a very limited extent in Australia. The bioregion reflects a montane climate with no dry season and a mild summer, with small areas of true alpine climate.

The study area over-lies colluvial and alluvial sediments of the Adaminaby Group, which comprises siltstone, mudstone, sandstone, shale and metamorphosed sediments. Siltstones, mudstones, and sandstone are examples of raw stone materials utilised by Aboriginal people in the past for the development of tools and weapons.

ii Topography and soil landscapes

The study area is characterised by the foot-slopes of the sedimentary hills and mountains around Khancoban, with slopes 2–15% gradient though generally <10%, local relief 9–30 m, with elevation ranging between 300–600 m. The area has been extensively cleared for grazing, and there is widespread sheet and gully erosion due to the highly erodible soils. Sheetwash can impact cultural materials if present, as the subsequent erosion and topsoil loss can expose and displace the materials. The study area itself is relatively flat, although slopes gently to the south-west towards Swampy Plain River.

iii Hydrology

The study area is situated 535 m north-east of the Khancoban Pondage, a three-kilometre artificial lake, a result of the Snowy Mountains Hydro Scheme, which forms part of the Murray catchment within the Murray-Darling Basin. Water runoff from the mountains to the east is discharged by the M2 power station into the Pondage over the spillway of the Khancoban Dam. The Swampy Plain River, a 6th Order watercourse (Strahler Stream Order), flows northwards from the Pondage, reaching its confluence with the Murray River located ~8.5 km to the north-west. Coldwater Creek, a 3rd Order watercourse, flows 250 m to the east and south of the study area, and Khancoban Creek, a 5th Order watercourse located 580 m south of the study area, flows from east to west into the Pondage. There are numerous other 1st and 2nd Order watercourses further north and south of the study area.

iv Previous land use disturbance

The site was developed, along with the town of Cabramurra, to support the Snowy Mountains Hydro-Electric Scheme in 1949, which brought ~100,000 people to the area over a 25-year period. Prior to the development of the Khancoban township, the locality was known as Swampy Plains, with European settlement as early as 1830 for the purposes of cattle grazing. A track, now known as the Alpine Road, was constructed in the early 1930s connecting Khancoban to Jindabyne, which followed the sacred route the Aboriginal people took on their annual pilgrimage to mountains for the summer Bogong moth feast.

Overall, the study area has a long history of human occupation and has been subjected to extensive levels of previous ground disturbance. The previous ground impacts vary from historic agricultural clearing and grazing to construction of the previous TWA and other structures on the site in support of the Snowy Hydro Scheme by 1949.

v Archaeological context

a AHIMS data

A search of the AHIMS register identified 19 registered Aboriginal heritage sites, objects and/or places within a ~1,300 km^2 area centred on the study area. general region. There are no previously recorded sites within the study area, the closest recorded site is located ~2 km south-west of the study area.

b Local investigations

Previous archaeological investigations relevant to the current study area were reviewed as part of the desktop assessment. The previous investigations indicate that the most common Aboriginal sites found in the area are open campsites, including artefact scatters and isolated finds, even in disturbed contexts. River valleys were fertile and provided both rich and numerous resources, as well as the essential year-round refuge from the inclement weather in the high plains. Stratified sites are rare due to the early European occupation of the region resulting in extensive levels of previous ground disturbance and in some cases the complete truncation of original landforms. Early historical development of the study area for the Snowy Hydro Scheme will result in disturbance and truncation of topsoils containing cultural materials if present.

6.3.2 Potential impacts

Based AHDD assessment, the following can be made in relation to cultural materials:

- Archaeological evidence confirms that watercourses, including the Swampy Plains River, were highly utilised by Aboriginal people, as evidence by several documented open campsites, burials, and culturally modified trees. Therefore, it is reasonable to predict that Aboriginal objects and sites have the potential to occur in the study area being in proximity to an established watercourse.

- Previous investigations conducted in the region identified Aboriginal sites predominantly on flat, elevated land in proximity to waterways, on ridge and spur crests, and occasionally hillslopes, and mostly contain low-density stone artefact sites in both surface and subsurface contexts.

- The naturally shallow and erodible soils mapped in the study area, and the extensive levels of previous ground disturbance from the development of the site for the Snowy Hydro Scheme considerably reduces the potential for surface and subsurface cultural materials to remain.

The desktop assessment indicates that the study area would have been a highly desirable landscape for both short- and long-term occupation, with the Swampy Plains River and the numerous other watercourses providing rich resources. This is further supported by relatively early European occupation for agricultural purposes, especially considering the remoteness of the locality, with Khancoban remaining as a remote township today.

The early European occupation and development of the study area as a TWA for the initial Snowy Hydro Scheme, which remained utilised for various storage and stockpiling uses to this day, significantly reduces the archaeological sensitivity. Combined with the naturally erodible and shallow topsoils of the area, it is very unlikely that cultural materials remain.

6.3.3 Mitigation Measures

The AHDD outlined the following recommendations to mitigate any potential impacts to Aboriginal heritage:

- The proposed development activities are considered to have low risk of harming Aboriginal objects, and works may proceed with caution. However, the nature of disturbance does not preclude the potential for isolated Aboriginal objects, which is a common site type across the region, even in disturbed contexts. In the event unexpected Aboriginal objects, sites or places are discovered during construction, all works in the vicinity should cease and the proponent should determine the subsequent course of action in consultation with a heritage professional and/or the relevant State government agency as appropriate.

- If suspected human skeletal material is discovered, the Coroners Act 2009 requires that all works should cease, and the NSW Police and the NSW Coroner's Office should be contacted. Traditional Aboriginal burials (older than 100 years) are protected under the NPWS Act and should not be disturbed. Interpreting the age and nature of skeletal remains is a specialist field and an appropriately skilled archaeologist or physical anthropologist should therefore be contacted to inspect the find and recommend an appropriate course of action. Should the skeletal material prove to be archaeological Aboriginal remains, notification of Heritage NSW and the Local Aboriginal Land Council will be required. Notification should also be made to the Commonwealth Minister for the Environment, under the provisions of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*.

- This documentation may be summarised within and/or appended to a Development Application (DA), and a Review of Environment Factors (REF). If any Aboriginal objects are later identified within the proposed activity area, this report cannot be used alone to support an application for an AHIP. Such an application would require more detailed investigation involving a formal process of Aboriginal community consultation and the preparation of an ACHA.

6.3.4 Conclusion

The results of the desktop assessment indicate that Aboriginal objects have a low risk of being impacted by the proposed project. Based on the environment and archaeological background of the region, the main evidence of past Aboriginal occupation would be present in the form of stone artefacts (surface and shallow subsurface disturbed deposits). The high levels of previous ground disturbance including clearing topsoils and levelling areas for hardstands and building structures, indicate that cultural materials in either a surface or subsurface context are unlikely. Additionally, the proposed activities are situated in the areas with the most visible previous ground disturbance including bitumen roads and parking areas, hardstands, and a previous gravel spoil heap.

Overall, the proposed activity is considered to have a low risk of harming Aboriginal objects and works may proceed with caution and in accordance with the recommendations outlined in Section 6.3.3.

6.4 Social

A SIA was prepared to outline potential social impacts and benefits of the proposed development to support assessment of the Development Application (DA). The SIA considers social impacts in terms of public interest and the methodology applied accords with that outlined in the NSW *SIA Guideline* 2023 (DPIE, 2023a).

The social locality (SIA study area) is informed by the nature of the project, the characteristics of affected communities and how positive and negative impacts may be reasonably perceived or experienced by different stakeholders. These stakeholders include landholders, nearby neighbours, community members, businesses, service providers and indigenous groups.

The Project considers the local area of Khancoban as where stakeholders would experience direct impacts. The nearby township of Corryong is where service providers and employment is likely to be sourced. The broader regional area is the Snowy Valleys LGA.

6.4.1 Existing environment

The local area of Khancoban SAL hosts the project and encompasses nearby residents to the project site. In 2021, the local area had a residential population of 319, which increased by 4.9% from 304 people in 2016. The local area is characterised by an older population, with a median age of 49 years. Of the residential population, 3.4% identify as Aboriginal and/or Torress Strait Islander.

Social infrastructure includes one school, Khancoban Public School, as well as a preschool. There are also a range of community spaces, including sport and recreation facilities, as well as local accommodation and food businesses. Emergency services in the area include a police station. The closest medical facilities and education providers are located in the nearby town of Corryong.

Alpine Way is the main road in and out of Khancoban, connecting to the Murry Valley Highway to Corryong. Khancoban residents are reliant on private vehicles, with limited public transport options.

6.4.2 Potential impacts

A summary of the identified social impacts and benefits is provided below in Table 6.4

Figure 6.1 Summary of identified social impacts and benefits

Impact/benefit	Category and stage	Unmitigated significance	Mitigation measures	Mitigated significance
Perceived diminished visual amenity of the site (negative)	Surroundings Construction and Operation	Medium	• Align design with existing local character • Continued updates to neighbouring landholders. • Implementation of a Construction Management Plan.	Medium
Deterioration of amenity due to generation of noise and dust, and concerns associated with contamination during construction (negative)	Health and Wellbeing Construction	Medium	• Implementation of a Construction Management Plan. • Minimise and control noise, and air pollution by applying required reduction methods. • Establish a publicly available complaints management process including a feedback mechanism to support strong community relations.	Low
Changes to traffic creating safety and access concerns (negative)	Health and Wellbeing Construction	Medium	• Signage and notifications for local road users regarding potential traffic changes. • Preparation of a Construction Traffic Management Plan. • Establish a publicly available complaints management process and a feedback mechanism.	Low
Increased economic benefits from procurement during Project construction (positive)	Livelihoods Construction	Medium	• Adoption of a workforce and procurement plan that prioritises hiring local workers where feasible and where impacts to existing demand can be avoided.	Medium
Increased competition for local skilled and unskilled workers during Project construction (negative)	Access Construction	Medium	• Adoption of a workforce and procurement plan that avoids impacts on service capacity of suppliers in the regional area.	Low
Improved housing and short term accommodation availability and affordability in the local area (positive)	Health and wellbeing Operation	Medium	• Release existing housing at affordable prices, targeted to needs of worker families.	High
Improved living conditions for workers (positive)	Health and wellbeing Operation	Medium	• Continue to align Snowy Hydro benefits programs with community needs, including recreation needs. • Support workforce use of local amenities by publishing information about classes and recreation opportunities, and coordinating with key community events.	High

The Project will deliver various positive impacts for the local community through building on existing contribution and legacy benefits, including community investment, procurement and employment outcomes, alongside lifestyle benefits for the 21 existing workers who already live part-time in the local area. The presence of the workforce will have flow-on effects in supporting demand for local business and recreation facilities. The Project

will also ensure the Murray Power Station 1 and 2 asset overhaul works do not unduly impact existing housing or accommodation capacity.

Snowy Hydro will need to attract a minimum of 63 new workers to the locality to support the Murray 1 overhaul (84 minus the 21 workers currently residing in the area). Stage 1 of the Project will release five existing houses in Khancoban for new families accompanying workers following Stage 1. This will increase the chance of attracting new worker families to the local area.

There is also an opportunity to continue and enhance existing community benefits associated with the legacy of Snowy Hydro in the region, increased participation in local community events and activities and the cumulative effect of Snowy Hydro's continued legacy of community benefits and cohesion.

A key consideration for near neighbours and the applicable local government plans and strategies is ensuring that amenity and character of the area maintained, with minimal impact on the environment, while values-aligned development is supported. Without mitigation and management, amenity impacts, including noise and air quality impacts could affect the health and wellbeing of nearby residents due to increased levels of distress and anxiety from changes to the surrounding environment. The Project is expected to be able to manage these issues within the parameters set by the applicable local controls and State construction controls, and through ongoing opportunities for the community to engage with the Project. Application of precautionary measures, such as a complaints management process to mitigate the perceived risk of these occurrences will assist in addressing community concerns.

6.5 Contamination

A stage 1 Preliminary Site Investigation (PSI) was prepared by EMM . The objectives of the Stage 1 PSI were to:

- identify potential contamination risks associated with the former uses which may require management during development of the Site and help inform the design process
- provide recommendations for any further contamination assessment or management that may be required to manage contamination risks during construction.

To achieve the objectives, EMM undertook a Site inspection and desktop review of available information for the Site, to assess current and historical potential contamination sources. The Site inspection was be completed by an EMM environmental scientist on Tuesday 20 August 2024 and included a walkover of the Site and surroundings to observe and take notes of any visible signs of contamination sources, including asbestos, potential hydrocarbon sources and illegally dumped waste.

6.5.1 Existing environment

The Site currently comprises open, undeveloped grassland with evidence of historical buildings and structures.

Based on the data review and Site inspection, EMM have identified some potential areas of environmental concern along with associated contaminants of potential concern (CoPC). Overall, the potential for widespread contamination is considered to be low and potential contamination expected to be limited to discrete areas. Sources of potential contamination include:

- historical building structures which represent a potential for surface debris including lead (residue from old paint), heavy metals or asbestos containing material (ACM) in/near former structures as well as potential historical spills and leaks from previously existing building use
- stockpiles containing gravel, wood, plastic and metal
- potential fill material of unknown origin under pavements and cement slab

- potential pesticide and herbicide use from former agricultural/grazing land use
- potential contamination transported from the off-Site petrol station adjacent to the south-east corner of the Site.

6.5.2 Conclusion and recommendations

Based on the available data, the following conclusions and recommendations are made:

- The Site currently comprises open, undeveloped grassland with evidence of historical buildings and structures.
- Areas of potential contamination were identified to include former buildings/structures, waste stockpiles and potential imported fill material, historic use of herbicides and pesticides and the service station adjacent to the south-east corner of the Site.
- The conceptual site model (CSM) identified three potentially complete source, pathway and receptor (S-P-R) linkages, with medium contamination risk. Other S-P-R linkages were considered low risk.
- Soil contamination, if present, is expected to be limited and located within discrete areas. There is a low potential for contaminated groundwater associated with the service station operations to be present onsite via groundwater migration.
- An unexpected finds protocol (UFP) for managing potential and/or identified contamination should be prepared by an appropriately qualified contamination consultant and form part of the overall construction phase environmental management plan (CEMP).

6.6 Ecology

The proposal will not impact threatened ecological communities or threatened flora or fauna because all native vegetation on the site was cleared and converted to pasture grasses before the 1960s. The study area does not appear to provide any important resources for threatened fauna species. Exotic trees may provide habitat for a range of bird species, including marginal foraging habitat for threatened species such as the Gang-gang Cockatoo and Dusky Woodswallow. Most trees will be retained. Far superior native vegetation habitats are widespread in nearby protected areas in the district, and will continue to be available to these species.

The modified grassland provides foraging resources for the Eastern Grey Kangaroo and a range of common bird species, and may provide a marginal foraging resource for the threatened Diamond Firetail, Flame Robin and Scarlet Robin. While some of the modified grassland will be removed, this resource is widespread in surrounding areas and not expected to be important to any fauna species. Direct impacts associated with the proposal include:

- removal of, or further modification to, approximately 2 ha of exotic grassland
- removal of some exotic planted trees.

Indirect impacts associated with the proposal include:

- potential for soil erosion during construction stage
- potential for introduction of invasive weed species
- increased disturbances to highly modified habitats.

Indirect impacts are expected to be minor as:

- the footprint of the proposed direct impacts is relatively small
- the areas affected had been transformed to non-native vegetation well-before the early 1960s
- the DA proposal will be implemented using low impact methods and with appropriate safeguards.

Whilst the proposal will result in increased noise and human activity, these increases will occur in areas that are already subject to these impacts in association with existing adjacent residential development and other infrastructure such as Alpine Way. The proposal is not expected to have any substantial adverse impacts on habitat connectivity as the subject land is set within the existing rural-urban interface.

6.7 Services and infrastructure

Utility services for the proposal can be provided from Snowy Valleys Council infrastructure and electricity telecommunications infrastructure.

6.7.1 Water Supply

SVC has provided details of existing water supply infrastructure assets in the vicinity of the site and show that there are no water supply assets of SVC located within the proposal site. The site inspection and survey indicated there are remnants of earlier water supply infrastructure, however through investigations of asset records and discussions with SVC it has been concluded that this infrastructure is either redundant or was part of private infrastructure and is no longer in operation.

The local water supply authority is Snowy Valleys Council. SVC records show there is an existing reticulated potable water supply servicing the Khancoban Village.

6.7.2 Sewerage

SVC has advised the town has reticulated sewerage collection servicing the Khancoban township. Council has provided details of sewerage infrastructure assets in the vicinity of the site. This mapping information shows there are sewerage assets of Council located within the site. This was verified during site inspection and detailed site survey where sewer manholes were found at the ground surface.

It was concluded from the Council records there are potentially elements of previous infrastructure that is now either redundant or was part of the private infrastructure servicing the previous development on the site. Given the age and uncertainty regarding precise location and condition of this pipework it has been deemed uneconomical for use as part of the proposed site services. Further the proposed gravity mains to be constructed are proposed to be handed over to Council as part of its reticulation network.

The preliminary design for connection to the sewerage network is shown comprises the following:

- Proposed 4 branch lines each of 150mm diameter (minimum WSAA code size) gravity sewer mains.
- Two of the branch mains are proposed to be connected via existing sewer manholes and two are proposed to connect via two new manholes to be constructed on the trunk sewer main.
- The sewer mains will be provided with sewer maintenance chambers in accordance with Council requirements and is proposed to become part of the SVC sewerage asset base
- Service connections will be provided to each of the buildings as per standard household connection points.

6.7.3 Stormwater drainage

SVC has advised the town has a stormwater drainage network servicing the Khancoban township. This is comprised of pits, pipes and open drainage channels. Council has provided details of stormwater drainage infrastructure assets in the vicinity, this mapping information shows there are stormwater drainage assets of Council located within and adjoining the site. This was verified during site inspection and detailed survey where stormwater infrastructure assets were found at the ground surface.

i Pre-development catchment

The proposed development site is situated on the western side of the Khancoban Village and sits within a larger drainage catchment of around 10 ha. The catchment drains in a south- westerly direction, ultimately discharging through a pipe under Alpine Way around 120 m to the north-west of Spillway Road. The existing pipe under Alpine Way is a single cell 750 mm diameter reinforced concrete pipe with an outlet headwall. The pit and pipe have recently been upgraded including the rock lining of adjacent table drains to eliminate scouring and erosion.

The current catchment is predominantly grassland with scattered large exotic vegetation and some hardstand areas including roads, buildings and parking areas. Hardstand areas make up approximately 20% of the catchment area. Towards the bottom end of the catchment, some of the catchment is controlled by an open drain. Discharge for the catchment pre-development is 1.12 m^3/s - 10% AEP and 2.23 m^3/s - 1% AEP.

ii Proposed Development and stormwater conveyance

All proposed buildings, carparking and the internal road network will be serviced by an underground pit and pipe network that will ultimately discharge through a single outlet to an existing open drain on the neighbouring property.

iii Post-development catchment

Once the site is fully developed, hardstand for the catchment will increase to around 60%, consequently increasing the discharge of the catchment to around 1.34m3/s - 10% AEP and 2.65m3/s - 1% AEP.

iv Existing open drain on neighbouring property

The water collected through the pit and pipe network for the proposed development will discharge into an opening drain that exists on the neighbouring property. This open drain is trapezoidal in shape, well formed and grass lined. Its dimensions are as follows:

Depth = 700 mm

Base width = 1000 mm

Top width = 4500 mm Side slopes = 1 in 2.5

The longitudinal slope of the drain averages 3.25% thus giving the drain a capacity of 5.4 m^3/s with a velocity of 2.8m/s flowing full. On this basis the open drain has the capacity to drain the entire catchment even though the majority is sheet flow and drains towards the table drain along Alpine Way. Whilst undertaking a site inspection it was noted that little water currently flows into this drain.

v Existing culvert under Alpine Way

A pipe culvert under Alpine Way exists to drain the upstream catchment. It is 750 mm in diameter and uses a grated letterbox pit at the point of receiving headwaters. Stormwater then discharges through the culvert, exiting to a grass lined open channel through a precast concrete headwall.

The pipe has a grade of 3.1% which has the capacity to convey around 2.1m3/s. For the 10% AEP, this exceeds the calculated discharge post development discharge of 1.34 m^3/s.

It is noted that the upstream inlet is a grated letterbox inlet pit, and the open drain has been shaped to maximise the amount of stormwater that can enter the pit/culvert. Should this pit not have the required inlet capacity for a large rainfall event, or become blocked, there is a table drain that flows downstream parallel to the road. Water that does not enter the pit will flow down this table drain to a secondary culvert some 100 mto the north-west, consequently preventing any over topping of the road should there be insufficient capacity.

Given the capacity of the existing pipe, its large capacity inlet structure and the presence of a secondary discharge point down an existing table drain, the pipe under Alpine Way has sufficient capacity and no further upgrading works will be required.

vi Proposed stormwater drainage works

The proposed development site will be drained by a new pit and pipe network discharging to the existing neighbouring property. Detailed design including sizing of pipes, defining overland flow paths and discharge treatments will be undertaken following approval of the development proposal.

6.7.4 Utilities

A Before You Dig Australia (BYDA) enquiry was submitted for the site and surrounds part of the investigation of the existing infrastructure servicing within the site. The enquiry identified the following Asset Owners within the vicinity of the site:

- Essential Energy – Local Service and HV distribution
- Telstra NSW South – Telecommunications

The BYDA search together with a search of the Essential Energy Network Information Portal shows that there are a number of High Voltage Powerlines impacting the site. There is an 11 kV High Voltage (HV) underground (UG) powerline together with switching kiosks along the northwestern boundary of the site. Underground 11 kV services are required to have a minimum 2 m wide easement in accordance with Essential Energy policy.

Further there is a low voltage (LV) overhead power supply line that traverses the north west corner of the site. EE overhead LV services are required to have a minimum 10-15 m wide easement (depending on span width) in accordance with Essential Energy policy

The BYDA search together with site observations indicate there is telecommunications infrastructure impacting the site. The location of the Telstra infrastructure, as sourced from BYDA, is indictive only and must be reconfirmed by Telstra. The service diagram shows there are underground services along Scott Street and the un-named roadway in the vicinity of the site (eastern side of site). In addition, there are underground services shown in the vicinity of the southeastern quadrant of the site.

Final investigations and detailed design will need to be undertaken by an accredited Level 3 ASP (accredited service provider). It is apparent that power and telecommunications infrastructure and associated easements will have a perceived minor impact on site usage and design. There will be an impact however this will need detailed survey to ascertain the quantum of the impact on available land for development.

It is considered that the rectification of discrepancies in easement locations should be addressed as part of the detailed survey process necessary for site planning and design. The survey will need to be undertaken by a registered surveyor in conjunction with a services investigation by a licensed service locator.

6.7.5 Easements

A title search was undertaken by Spectrum Property and Projects as part of the due diligence process.

During the course of investigations into the existing infrastructure present on site it was clear there are some inconsistencies with regard to easements that are registered on the property title and appear in the title schedules compared to what is on site and reported by the asset owners.

It would be of benefit in the long term to rationalise those easements to ensure that the legal easements created on title align with the services that are physically in or on ground and proposed for construction. The BYDA and Asset and Infrastructure searches with asset owners are issued with disclaimers as to accuracy.

Some easements should be extinguished where they no longer are required (eg water supply) and others need to be created (eg electricity, sewerage and drainage)

The survey will need to be undertaken by a registered surveyor in conjunction with a services investigation by a licensed service locator.

6.8 Other

6.8.1 Visual

The proposal would sit within the Khancoban township, which is visually defined by low-rise residential development, with exotic avenue and street plantings. The township is located within undulating hills and surrounded by land cleared for farming of native vegetation. Views into the site are glimpsed when driving along Alpine Way, particularly from west to east. The large stand of mature vegetation in the northeast corner provides a significant visual screen, with views to the proposed development from the north east corner (corner of Scott Street and Mitchell Avenue) limited to the Stage 1 accommodation units (refer Figure 6.2 and Figure 6.3).

The design of the proposal will ensure the visual appearance of the infrastructure blends into the surrounding landscape as much as possible, including:

- using appropriate colours and non-reflective paints on buildings to reduce glare and visual intrusion
- using single storey, modular accommodation units that reflect the existing built environment within Khancoban
- siting accommodation to maximise screening provided by existing vegetation and slope.

The proposed landscaping has been designed to help visually soften the development when viewed from Scott Street and enhance the internal streetscape and amenity around the proposed accommodation units and facilities. A montage of the proposed development viewed from Scott Street is provided in Figure 6.7. The existing vegetation provides an effective screen however, it is noted that the existing trees along the Scott Street frontage are predominantly deciduous. For this reason, additional planting will be undertaken within the site, along Scott Street, that uses native evergreen species.

Additional landscape design features include:

- Plant selection of hardy native small shrubs, grasses and groundcover species suitable to the local environment have been selected to provide an attractive low maintenance landscape around accommodation units and facilities
- Trees have been selected from Snowy Valleys Council's Development Control Plans Preferred tree species list. This includes native trees and exotic deciduous trees that will provide shade during the warmer months and solar access during the cooler months
- A mixture of native and exotic tall screening shrubs (evergreen) to further screen the proposed development from Scott Street and provide partial screening and privacy between the accommodation units
- Existing turf will remain where possible and new turf will be laid to repair areas damaged by construction.

Figure 6.2 View west to site from corner of Scott Street and Mitchell Avenue

Figure 6.3 View east within the site, to mature vegetation between Stages 1 and 2

Figure 6.4 Photo montage depicting development from Scott Street

6.8.2 Historic heritage

The Statement of Heritage Impacts (SoHI) (Appendix G) has determined that the site exhibits low archaeological potential due to the existing disturbed foundations of the former workshop and foundations of the former Temporary Workers Accommodation (TWA), which themselves are not of archaeological significance. No significant visual impacts are anticipated from the proposed accommodation units and supporting infrastructure,

as the new structures will blend with the existing development pattern, which includes similar infrastructure such as camps, buildings, and roads associated with the Snowy Mountains Scheme.

The subject site retains minimal historical fabric, limited to remnant concrete foundation and septic drain from the former TWA. As such, the proposed development will not affect significant heritage fabric, given the absence of elements with substantial heritage value within the subject site.

Although the subject site is located within the NHL-listed Snowy Mountains Scheme, the proposed development is not likely to significantly impact the heritage values of the listing. The proposed works are consistent with existing development patterns and do not involve actions that could damage, modify, or alter the historical, ecological, or aesthetic values associated with the Snowy Mountains Scheme. The development will largely be confined to a previously disturbed area and will involve modular accommodation units that are not expected to impact geological formations, biological diversity, cultural heritage sites, or significant landscape features, in line with the criteria set out in the *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (Department of the Environment 2013).

Despite the subject site being within the curtilage of the Snowy Mountains Scheme, the site itself does not possess attributes that contribute to heritage values at the National, State, or local levels. The remaining elements associated with the former workshop and former Temporary Workers' Accommodation (TWA), lack social significance, research potential, historical association, rarity, representativeness and aesthetic or technical merit. While these elements may provide some context within the broader narrative of the Scheme, they do not offer new or substantial information that would enhance understanding of its history. Additionally, the site has been assessed as having low archaeological potential as the structures are associated with a later period when centralised waste disposal practices were implemented. These practices have likely reduced the potential for intact archaeological resources. Consequently, it is unlikely that any subsurface archaeological resources, if present, would include significant artefact deposits or structural remains capable of yielding new or meaningful information.

To ensure that any unforeseen heritage items are managed appropriately during the construction phase, the following management measures are recommended:

Unexpected Finds Procedure: Given the low archaeological potential of the site, an Unexpected Finds Protocol should be developed and included in the project's Construction Environmental Management Plan (CEMP) to manage any unexpected heritage items discovered during construction.

6.8.3 Bushfire

The site is not located within a designated Bushfire zone. Appropriate training and signage will be implemented to ensure staff and workers are made aware of evacuation procedures, should they be required.

6.8.4 Noise

Construction is proposed over an approximate 18-month period. Construction will be undertaken, generally

- Monday to Friday: 7 am to 6 pm
- Saturday: 8 am to 1 pm
- no work on Sundays and public holidays.

Construction noise from the proposed development is predicted to satisfy noise management levels (NMLs) s during standard construction hours.

Any noise impacts generated through the operation of the proposed will be related primarily to road traffic associated with the TWA and noise created by residents. These impacts are not expected to be significant and can be mitigated through appropriate mitigation measures.

6.8.5 Air quality and odour

i Overview

There is potential for air quality impacts to the receiving environment during the construction of the TWA. This section describes those impacts.

ii Construction

There is potential for minor temporary impacts to local air quality during the construction phase of the proposed development. Dust will be generated through earthmoving, material handling, vehicle movements, and windblown from exposed areas and material stockpiles. This impact will be short term and intermittent. Dust mitigation measures will be implemented and include, but not be limited to:

- the erection of a construction wrap (e.g. shade cloth) perimeter fence
- dust suppression of material stockpiles, exposed surfaces and pavements and roads through use of water sprays as required
- routine monitoring weather for adverse conditions (e.g. dry, windy conditions) and limiting activities on windy day
- covering materials transported in trucks prior to dispatch and arrival to the site
- avoid dropping materials from height.

iii Operation

There are no predicted operational air quality impacts

6.8.6 Accessibility

The nature of the work to be performed for the Murray upgrades requires fully physical mobile staff, with a high level of fitness and mobility to meet workplace health and safety requirements. Given this, it is proposed to exclude accessible sole occupancy units.

Staff engaged in other roles in SHL such as administration which are office based will not be accommodated in this development. SHL has other accommodation provided in Khancoban for long stay staff. These can be adapted if required to meet the accommodation needs of a staff member with a mobility impairment.

In some cases, such as the proposed development, where the ownership, management, and use of the building, as well as the physical ability of the occupants, is known and controlled, there is justification to question whether the provision of the full (or any) amenity of an Accessible Unit is required. The design does not incorporate rooms compliant with AS4299 or AS1428.1 – 2009.

The core issue of this assessment is that, wherever possible, a building should provide suitable accessible facilities ‘to the degree necessary’ and appropriate to the function and use of the building and the particular needs of the known occupants. By doing so, the building owner ensures flexibility in the use of the building to accommodate changing needs, whether long or short term, of its occupants. Additionally, compliance removes the risk of a complaint under the Disability Discrimination Act 1992 (DDA) relating to the building fabric.

In the case of the Khancoban Workers Accommodation, the building serves a unique purpose by accommodating a workforce that must meet high physical fitness and mobility standards due to the physical and at times risky nature of their roles.

The absence of Accessible dwellings is further supported by the building's operational context, including a robust medical response protocol. This ensures that injured personnel are promptly transported or flown to the nearest medical facility, reducing the necessity for short term accessible accommodation provision or features. This approach aligns with the "to the degree necessary" clause in Performance Requirement DP1, demonstrating compliance with the intent of the requirements while addressing the specific nature of the development and its controlled occupancy.

The report identifies that the proposed design satisfies the relevant Performance Requirements (D1P1) of NCC 2022, Volume 1, Amendment 1.

7 Conclusion

Snowy Hydro is seeking approval to construct and operate a TWA on land at Scott Street in Khancoban. The development involves the installation of up to 84 modular dwelling units for the anticipated skilled workforce required by SHL.

Detailed modelling and assessment for this SEE focussed on investigating any potential environmental impacts from the proposed development. This included traffic, heritage (Aboriginal and cultural), social impacts, contamination and ecology. Subject to the implementation of the proposed mitigation measures and controls applied to this site, the proposed activity will not result in significant adverse environmental impacts.

The proposed TWA is critical to address social impacts relating to the proposed Murray Power Station upgrades, and any additional Snowy projects in the Murray region. It will provide temporary housing for workers outside of Khancoban and surrounding localities.

Additionally, the proposed TWA will provide indirect economic benefits to the local area during both the construction and operational phases.

Through the implementation of proposed mitigation measures and controls, this SEE demonstrates that the proposed TWA could be constructed and operated without any significant impacts on the local built and natural environments. As such, the proposed TWA is considered to be in the public interest and worth of the grant of development consent by SVC.

Appendix A
Plans and elevations

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Appendix B
Traffic Impact Assessment

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Appendix C
Aboriginal Heritage Due Diligence

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Appendix D
Statement of Heritage Impact

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Appendix E
Primary Site Investigation

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Appendix F
Flora and Fauna Assessment

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Appendix G
Social Impact Assessment

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Appendix H

Disability Discrimination Act statement

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Appendix I
Stormwater Management Report

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