Appendix 2 – Description of Works and Structural Plans

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1. DESCRIPTION OF WORKS AND PLANS – CLOVER POWER STATION

1.1. Stream Diversion for Tail Bay Works

To access the tail bay wall construction site, the contractor will be required to cross the stream bed via the existing track. An in-stream rock diversion is to be constructed and deepening of the stream bed will be required.

The construction method will include the following:

Move an appropriate amount of loose rock material from within the vicinity of the work area to create a rock wind row between the work area and natural water flow path to prevent ingress of water to the work area.

Additional channelling of the stream bed is required to assist with diversion of water. The depth of excavation will be approximately 1 metre. Preliminary geotechnical reports identified bedrock at 1m below surface during excavations, and it is assumed that this will be the limit of excavation.

The length of the rock wind row will be approximately 50m (as shown in Figure 1).

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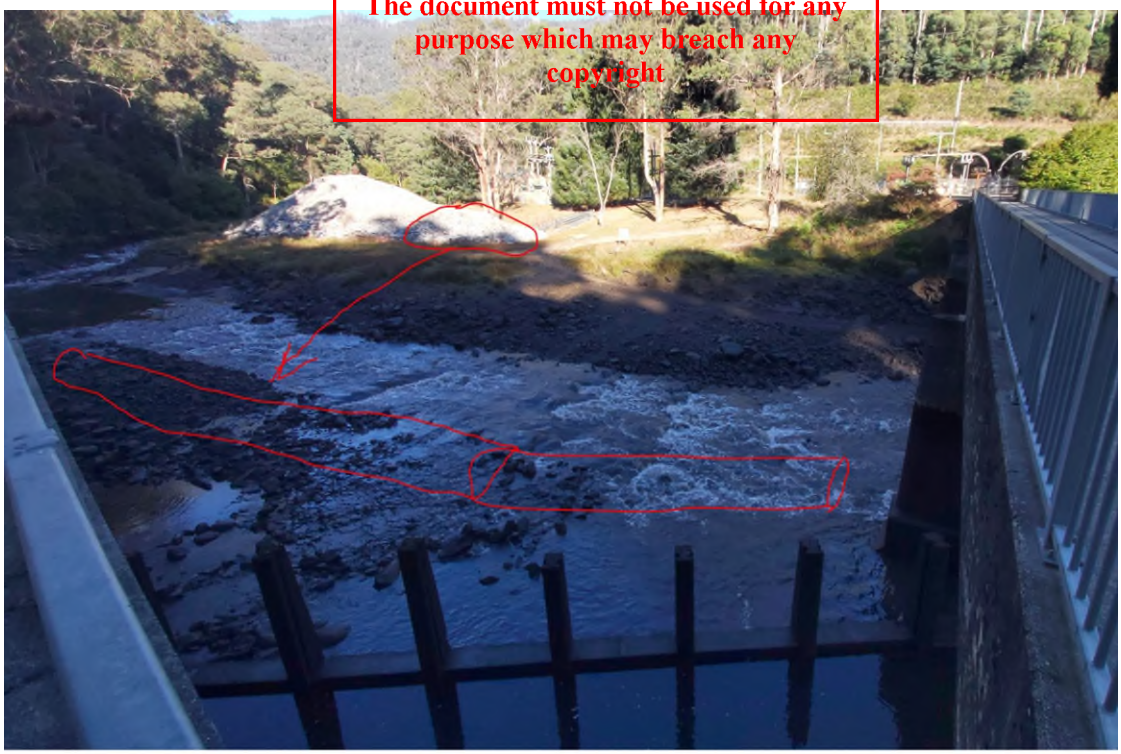
Figure 1 - Location of diversion wall to redirect stream flows away from site.



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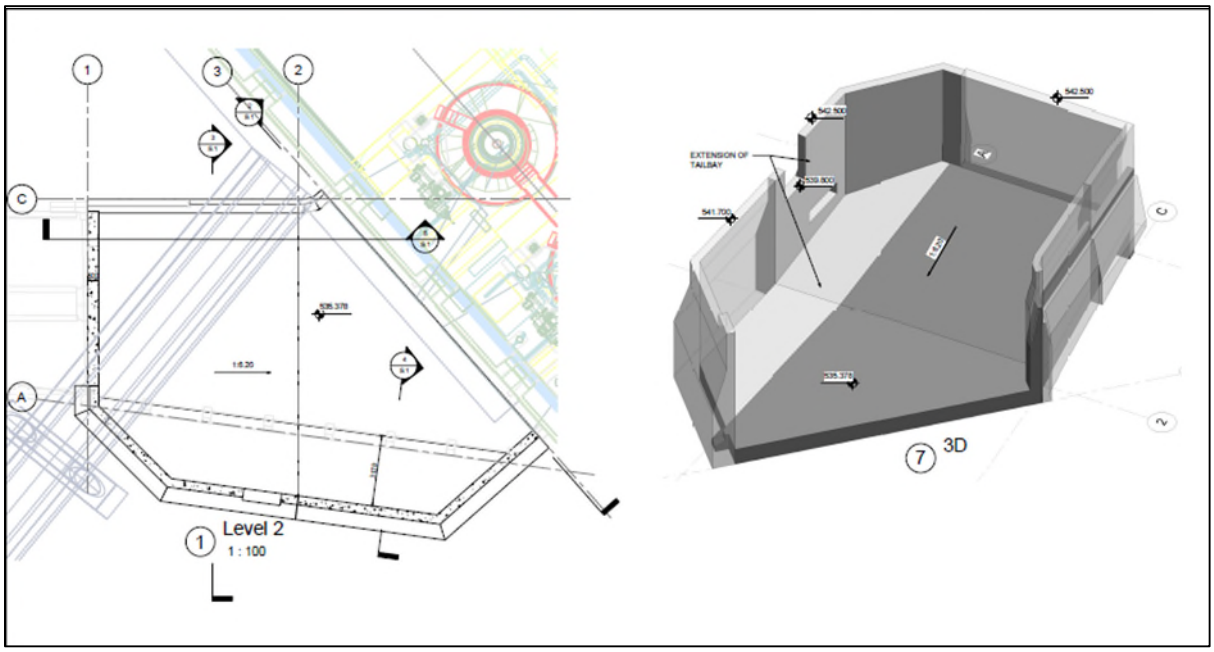
Maximum water flow limits will be required to protect contractor employees, plant and equipment whilst maintaining appropriate levels in the dams and streams above and below the site. The project requires scheduling when inflows are at their minimum.

1.2. Tail Bay Modification

The geometry of the existing tail bay requires modification to provide a consistently higher tail water level during the operation of the new upgraded turbines. This water level needs to remain constant regardless of the dam level. Therefore, the existing wall needs to be raised by 2.4m and extended by 3m.

The new tail bay design will act like a swimming pool, collecting water as it exits the turbines and maintaining a constant water level and back pressure. The design features spill way slots and a lower self-draining slot to allow the entire tail bay to self-drain during periods of planned low dam levels and for turbine maintenance inspections. Below is a basic plan and 3D view of the tail bay structure. Complete structural drawings are provided below.

Figure 2 - Plan and 3D view of tail bay design.



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STRUCTURAL DRAWINGS
TAILBAY
CLOVER POWER STATION

GENERAL

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DOCUMENTS (INCLUDING ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS) AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.

G2 ALL DIMENSIONS RELEVANT TO THE SETTING OUT AND OF SITE WORK SHALL BE VERIFIED BY THE BUILDER BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED. THE ENGINEERS DRAWINGS SHALL NOT BE SCALED.

G3 DURING CONSTRUCTION THE BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART BECOMES OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.

G4 WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT CURRENT AUSTRALIAN CODES AND STANDARDS, INCLUDING ALL AMENDMENTS AND STATUTORY REQUIREMENTS.

G5 ALL DIMENSIONS ARE IN MILLIMETRES U.N.O.

G6 LOADS ON SLABS ARE IN ACCORDANCE WITH AS4055 AS FOLLOWS (refer to PROJECT SPECIFIC INFORMATION)

G7 LOADS ON LIVE LOADINGS ARE IN ACCORDANCE WITH AS1170.1 AS FOLLOWS (refer to PROJECT SPECIFIC INFORMATION)

G8 ALL CLADDING MATERIALS AND ELEMENTS SHALL BE FIXED IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION FOR THE ABOVE LOAD CONDITIONS.

WORK HEALTH SAFETY

SA1 THE BUILDER & SUBCONTRACTORS SHALL CONSTRUCT THE WORKS USING SAFE WORKING METHODS IN COMPLIANCE WITH THE WORK HEALTH & SAFETY ACT (AMENDMENTS), AND ALL OTHER APPLICABLE ACTS, REGULATIONS & ADVISORY STANDARDS.

SA2 THE BUILDING STRUCTURE HAS BEEN DESIGNED TO SUPPORT/RESIST THE LOADS NOMINATED IN THESE GENERAL NOTES. THE OWNER/OPERATOR SHALL ENSURE THAT THESE LOADS ARE NOT EXCEEDED.

SA3 ALL DEMOLITION SHALL COMPLY WITH AS2601-2001 - DEMOLITION OF STRUCTURES.

SA4 REINFORCING BARS, HOLDDOWN BOLTS AND THE LIKE PROTRUDING FROM CONCRETE WORK SHALL NOT BE LEFT UNCAPPED AT THE END TO MINIMISE THE RISK OF INJURY.

FOUNDATIONS AND SITE PREPARATION

F1 STRIP TOPSOIL TO THE RELATIVE LEVELS SHOWN ON THE CIVIL AND ARCHITECTS DRAWINGS. THE EXPOSED AREA SHALL THEN BE PROOF ROLLED WITH A SINGLE DRIVE AXLE TRUCK WITH AN AXLE LOAD OF 8.2 TONNE TO ENSURE THAT NO LOCAL SOFT SPOTS EXIST. IF ANY SOFT SPOTS ARE REVEALED, THEY SHALL BE MADE GOOD WITH COMPACTED GRANULAR FILL COMPACTED.

F2 FILL SITE TO RELATIVE LEVELS WITH APPROVED MATERIAL, NOMINAL MAX. SIZE 75mm, PLACED IN 150mm MAX. LAYERS AND COMPACTED TO 95% STANDARD RELATIVE DRY DENSITY, U.N.O.

F3 THE CONTRACTOR SHALL CHECK ALL FOOTING EXCAVATIONS FOR ORGANIC MATERIAL AND REMOVE ANY OF THIS MATERIAL IS FOUND. IT SHALL BE REMOVED AND THE EXCAVATION BACKFILLED WITH CLEAN CRUSHED FILL.

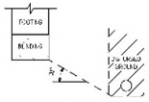
F4 UNLESS UNDERLAIN BY CONCRETE, THE EXCAVATIONS SHALL BE COMPACTED TO A RELATIVE DRY DENSITY OF 95% AS DETERMINED ACCORDING TO AS1289.

F5 THE CONTRACTOR IS TO ENSURE THAT THE SIDES OF THE EXCAVATION ARE STABLE DURING ALL PHASES OF CONSTRUCTION.

F6 SHALLOW PAD AND STRIP FOOTINGS HAVE BEEN DESIGNED TO FOUND IN A STABLE MATERIAL WITH A SAFE ALLOWABLE BEARING CAPACITY OF 100 kPa. SHOULD CONDITIONS OTHER THAN THOSE DESCRIBED ABOVE BE ENCOUNTERED, THEN THE MATTER SHALL BE REFERRED TO THE ENGINEER FOR POSSIBLE RE-DESIGN.

F7 SITE SOIL CLASSIFICATION AND SLAB DESIGN IS IN ACCORDANCE WITH AS2870-2011 FOR A CLASS 'S' SITE. (refer to PROJECT SPECIFIC INFORMATION)

F8 UNLESS NOTED OTHERWISE, WHENEVER A NEW FOOTING IS LOCATED CLOSE TO AN EXCAVATION, BATTER, EXISTING FOOTING, EXISTING SERVICE OR NEW SERVICE WHICH IS DEEPER THAN THE NEW FOOTING, THE EXCAVATION FOR THE NEW FOOTING SHALL BE DEEPENED AND BACKFILLED WITH BLINDING CONCRETE AS INDICATED BELOW.



CONCRETE

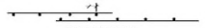
C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600. ALL FORMWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS3610. READYMIX CONCRETE SUPPLY SHALL COMPLY WITH AS 3570.

C2 MINIMUM COVER TO REINFORCEMENT TO BE AS FOLLOWS U.N.O. ON THE DRAWINGS:

ELEMENT	TOP OF HORIZONTAL & INTERNAL	BOTTOM OF HORIZONTAL & EXTERNAL	NOT HORIZONTAL CAST AGAINST GROUND
FOOTINGS	50	50	50
GROUND SLABS	50	75	50

C3 REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN THE TRUE PROJECTION.

C4 SPLICES IN THE REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN OR AS OTHERWISE APPROVED BY THE ENGINEER. FABRIC TO BE LAPPED A MINIMUM OF 2 CROSS WIRES + 25mm AND SHEETS STAGGERED TO AVOID EXCESSIVE THICKNESS AT LAPS.



MINIMUM FABRIC LAP

C5 ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION SO AS NOT TO BE DISPLACED DURING CONCRETING OR ON APPROVED BAR CHAIRS AT MAXIMUM VALUES SHOWN ON PLANS. WHERE REQUIRED, PROVIDE SUITABLE BARS AT 1000mm MAX. CTRS.

C6 REINFORCING SHALL COMPLY WITH AS4671 AND IS DESIGNATED WITH THE FOLLOWING SYMBOLS:

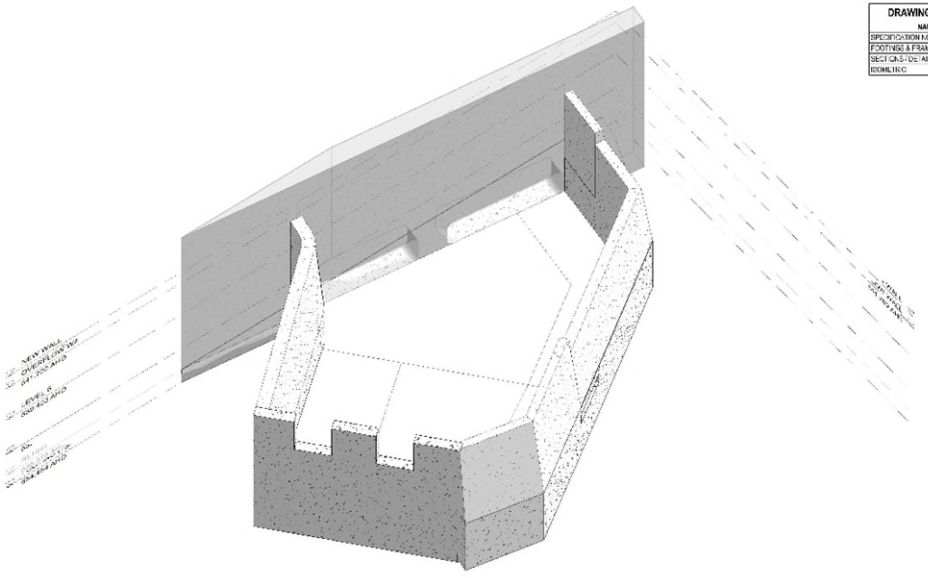
RL, SL RECTANGULAR OR SQUARE FABRIC
D DEFORMED WIRE, CLASS L, GRADE 500
N HOT ROLLED DEFORMED BAR, GRADE 500
H FLAT WELDING BAR, GRADE 250
W PLAIN WIRE REINFORCING, GRADE 500

C7 CONCRETE COMPONENTS AND QUALITY SHALL BE AS FOLLOWS (U.N.O.):

ELEMENT	STRENGTH GRADE	MAX. SIZE AGGREGATE	SLUMP
FOOTINGS	40 MPa	20mm	80mm
INTERNAL GROUND SLABS	40 MPa	20mm	80mm
EXTERNAL GROUND SLABS	40 MPa	20mm	80mm

C8 BAR LAPS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE.

BARS SCHEDULE 'N' LAP SPLICES				
MIN. f'c	V N COVER	BAR Size	SPLICE LENGTH (mm)	
			LOWER CONCRETE BELOW HORIZONTAL BARS	OTHER CONCRETE BELOW HORIZONTAL BARS
25	20	N12	600	660
25	20	N16	700	900
25	20	N20	900	1200
32	20	N24	1000	1300
32	25	N28	1200	1600
40	25	N32	1400	1800
40	25	N36	1870	2400



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NAME	No.
SPECIFICATION NOTES	S001
FOOTINGS & FRAMING PLAN	S100
SECTIONS - DETAILS - FOOTINGS	S200
DOWELLING	S300

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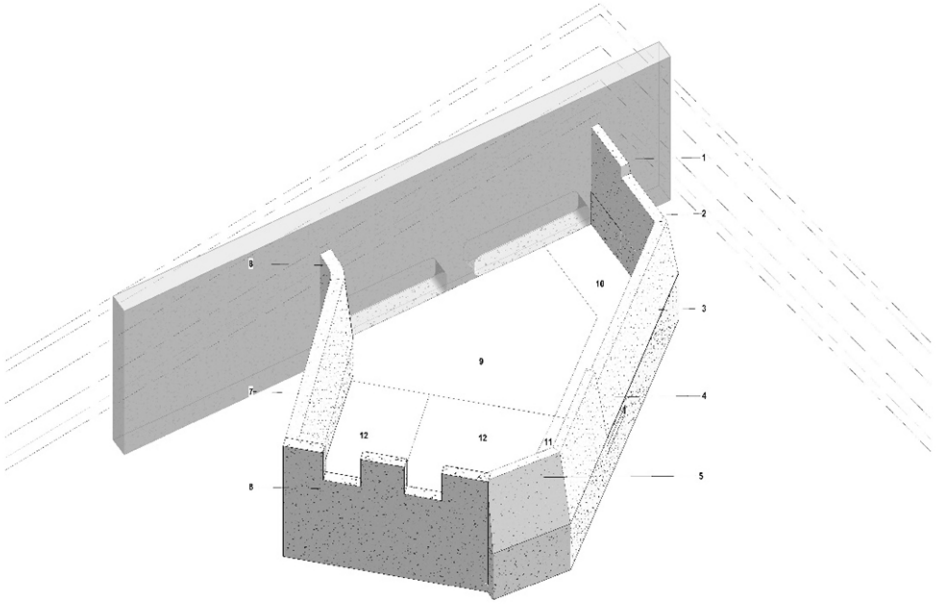

STRUCTURAL ELEMENTS

Mark	Element	External Reinforcement - X	External Reinforcement - Y	Internal Reinforcement - X	Internal Reinforcement - Y	f'c (MPa)	Cover
1	PANEL 1	N20-150	N20-150	Y20-175	N20-175	40	75
1	PANEL 1 TAPER	N24-175	N24-175	Y24-175	N24-175	40	75
2	PANEL 2	N20-150	N20-150	Y20-175	N20-175	40	75
2	PANEL 2 TAPER	N24-175	N24-175	Y24-175	N24-175	40	75
3	PANEL 3	N20-150	N20-150	Y20-175	N20-175	40	75
3	PANEL 3 TAPER	N24-175	N24-175	Y24-175	N24-175	40	75
4	PANEL 4	N20-150	N20-150	Y20-175	N20-175	40	75
4	PANEL 4 TAPER	N24-175	N24-175	Y24-175	N24-175	40	75
5	PANEL 5	N20-150	N20-150	Y20-175	N20-175	40	75
5	PANEL 5 TAPER	N24-175	N24-175	Y24-175	N24-175	40	75
6	WALL 6	N24-175	N24-175	Y24-175	N24-175	40	75
7	PANEL 7	EXISTING	EXISTING	Y24-175	N28-175	40	75
7	PANEL 7 TAPER	N24-175	N24-175	Y24-175	N24-175	40	75
8	PANEL 8 TAPER	EXISTING	EXISTING	EXISTING	EXISTING		
9	914mm CONCRETE SLAB (EXISTING)	EXISTING	EXISTING	EXISTING	EXISTING		
10	1000mm CONCRETE SLAB (NEW)	N28-175	N28-175	Y28-175	N28-175	40	75 TOP 65 3RD
11	1000mm CONCRETE SLAB (NEW)	N28-175	N28-175	Y28-175	N28-175	40	75 TOP 65 3RD
12	914mm CONCRETE SLAB (EXISTING)	EXISTING	EXISTING	EXISTING	EXISTING		

Y = VERTICAL REINFORCEMENT
X = HORIZONTAL REINFORCEMENT

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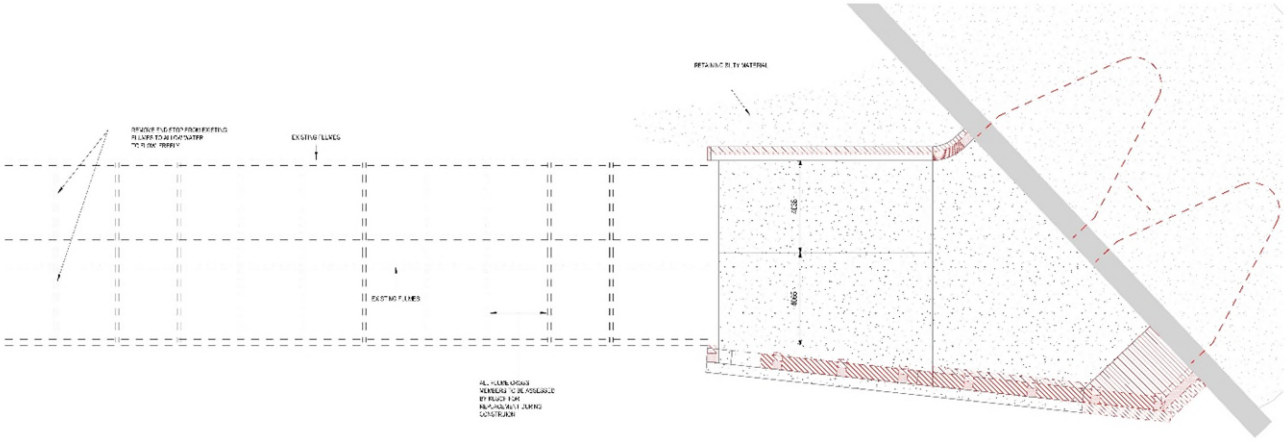

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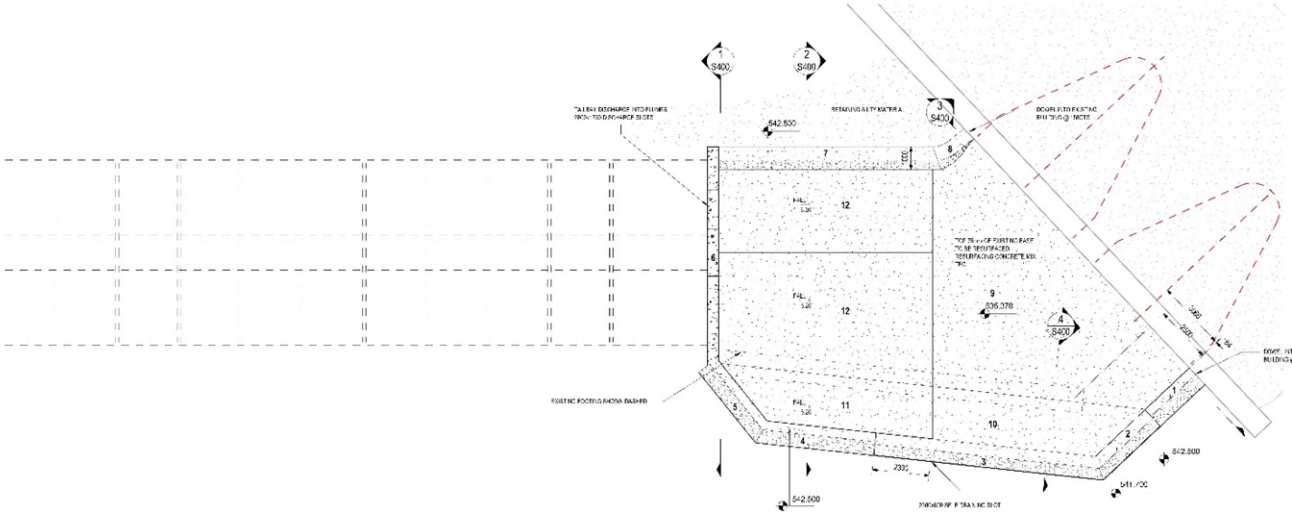

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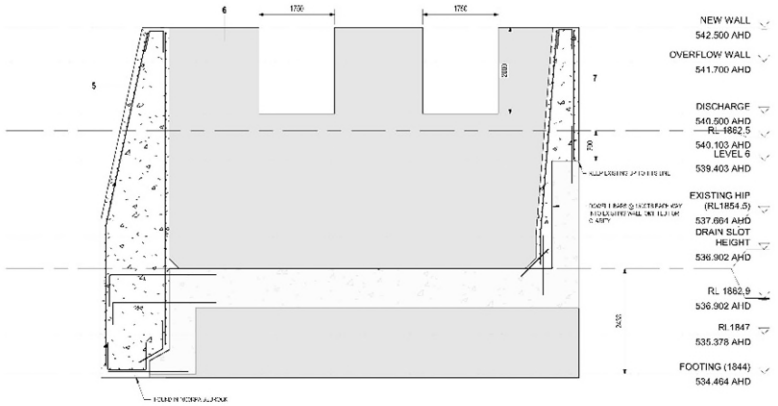

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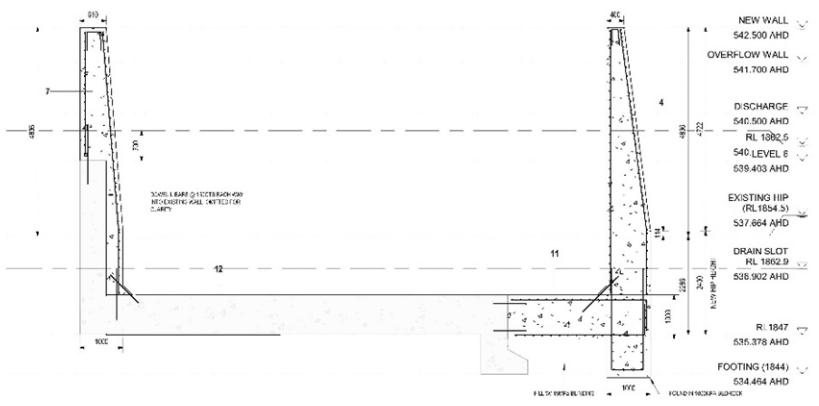

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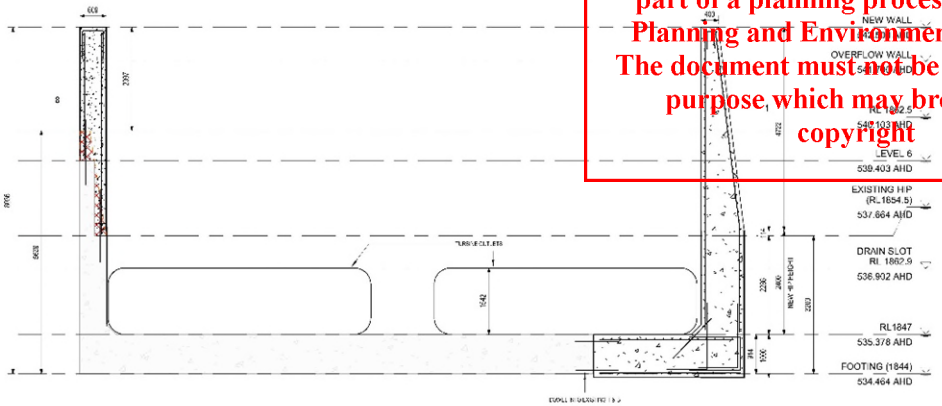

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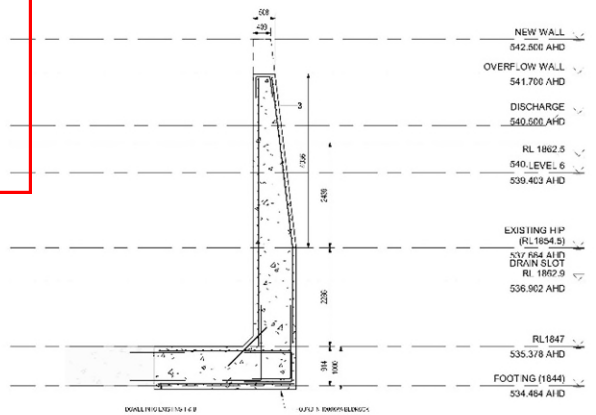

SECTION 4
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1.3. Hardstand Laydown Area Construction

A hardstand laydown and storage area will be created on an existing bench located above the main switchyard and adjacent to the Bogong High Plains Road. The location of the hardstand laydown can be found on the Construction Site Layout Drawing. This site has historically been used as a dam de-silting dump transfer site.

Hardstand material will be sourced and laid on site over the existing surface. The material will then be compacted. Appropriate above ground drainage and sediment control will be installed.

In addition, there will be a pedestrian gravel accessway approximately 1200 mm wide between the main car park and the hardstand area. This walkway is located on the site Construction Site Layout Drawing. The walkway will be created by topping the existing surface with the same locally sourced hard stand material over the existing surface and compacted.

There will be no additional battering, benching or modification of the existing landform as part of the hard stand and laydown area construction.

Figure 3 – Location of proposed hardstand area

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Figure 4 – Location of proposed hardstand and storage area

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1.4. Existing Toilet Block Replacement

The existing ablutions/toilet block at AGL that services the power station is well past its useable lifespan. The existing internal layout does not cater for male and female use as staff must pass the urinals to reach the toilet cubicles. The block requires replacement immediately.

The new block is a like for like replacement of the existing building and will be connected to the same existing septic system, water and electrical supply that is present on site. The building is currently being fabricated and will then be delivered to site.

There is no increase in capacity, or servicing requirements. The new block seeks to reconfigure the internal layout comply with a unisex arrangement for both male and female users. Figure 7 shows the details of the toilet block to be replaced and structural plans are provided below.

Figure 5 – Existing facilities

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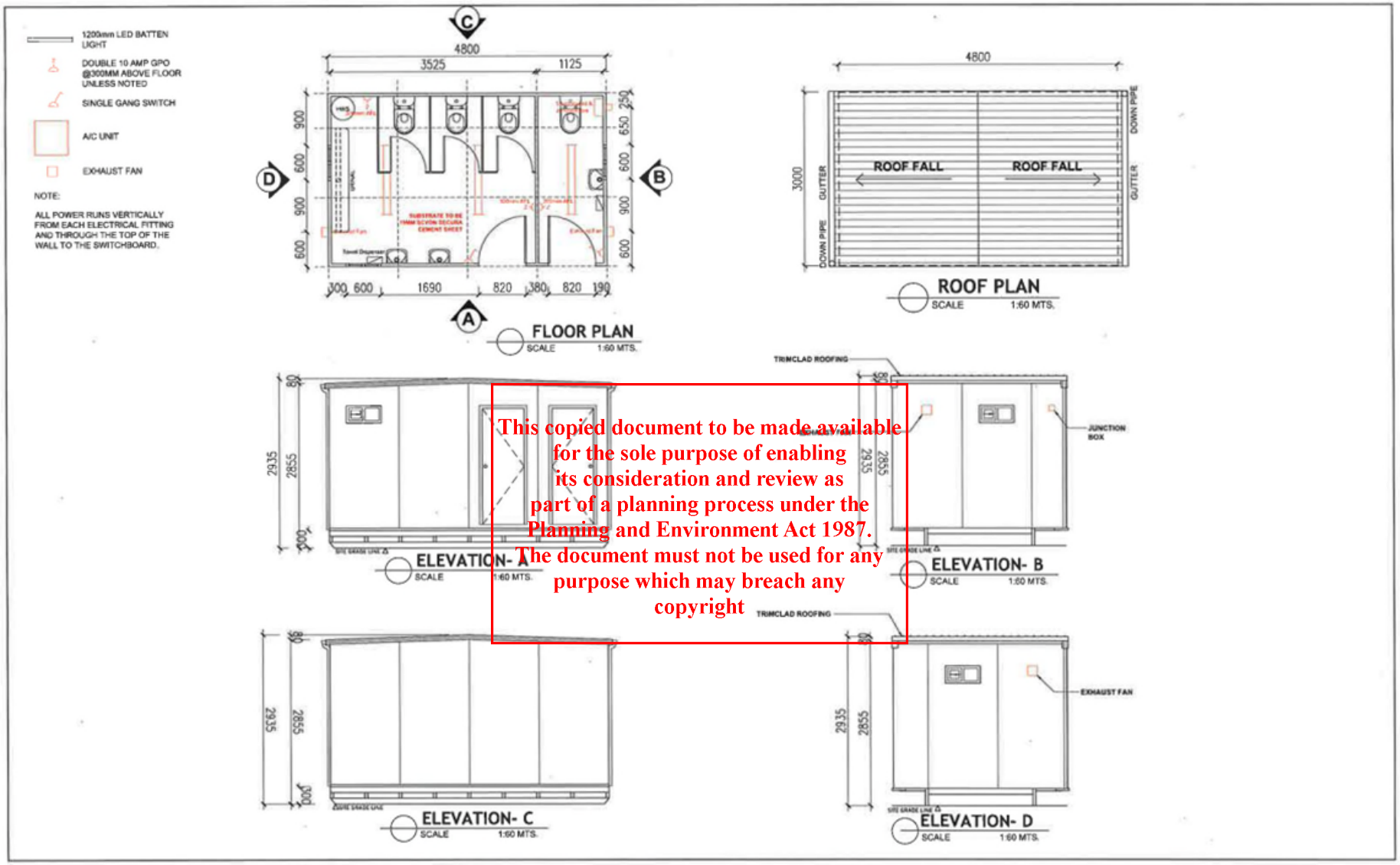

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BY SIGNING YOU APPROVE OF THE ABOVE SPECIFICATIONS

SIGNED K. McVEIGH

DATE 29-4-24

ATOM MODULAR PTY LTD
78 Barry Rd, New Gisborne VIC 3438

CLIENT agl

PROJECT: AGL 4.8x3 Toilet

ATOM INVOICE NO: 00078

REV:

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1.5. Temporary Construction Facilities

As stated above, construction work is predominantly located inside the power station, however the existing carpark will need to house temporary site amenities. These are as follows:

- Temporary storage containers x 3
- Temporary mess building x 1
- Temporary rubbish and waste storage facilities
- Temporary parts and equipment storage on hardstand storage areas.

These temporary storage facilities are for the period of construction only and are indicated on the site construction and layout drawing attached. All temporary storage facilities and ancillary buildings will be removed on completion of the project with the site returning to its existing state.

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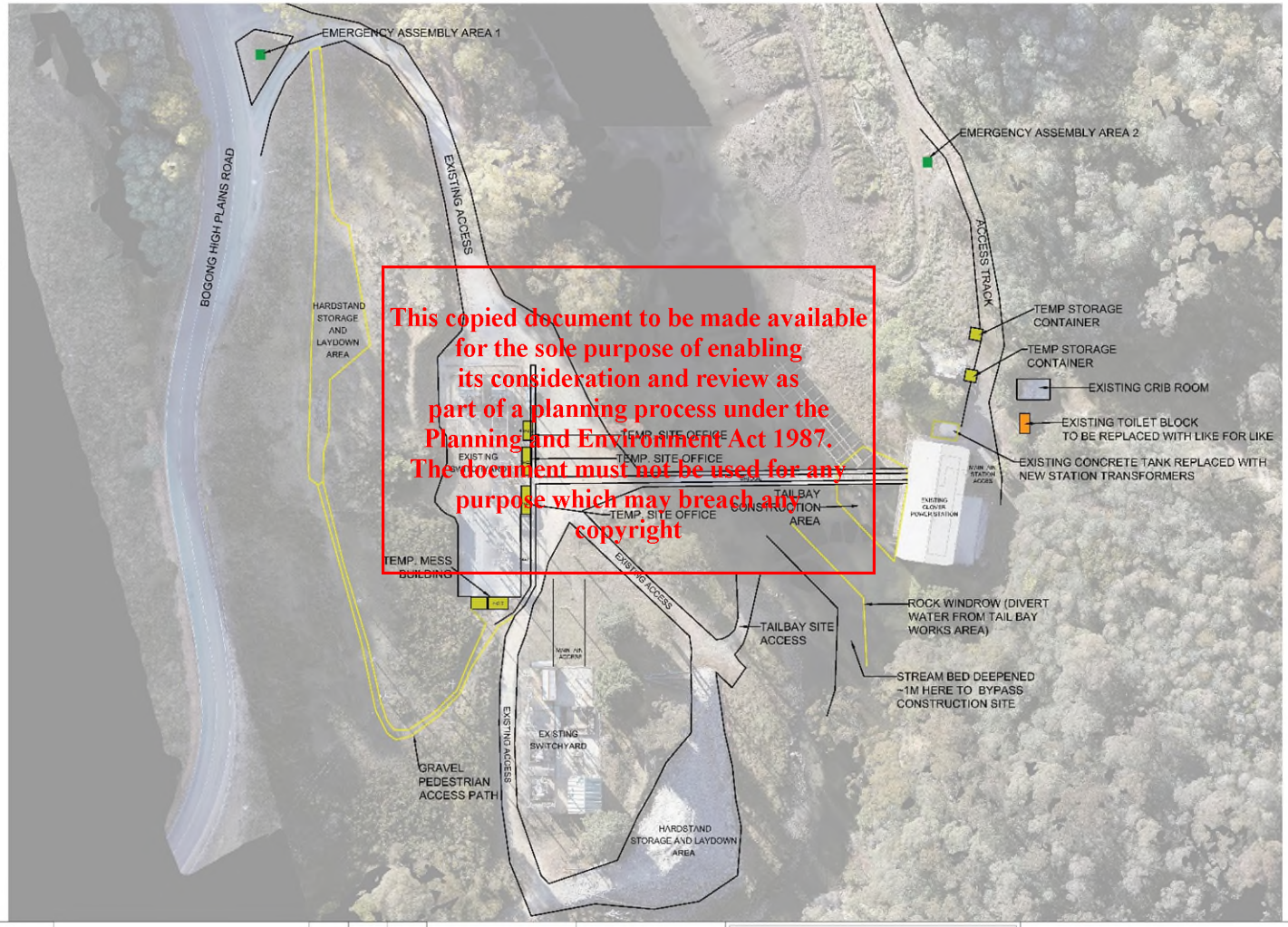
SITE AND LAYDOWN AND TAIL BAY WORKS AREA PLAN
FROM AUGUST 2024

0 10 20 50 100
SCALE BAR 1:500



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REV	DATE	DESCRIPTION	DRN	CHK'D	APP'D

CLPS MODERNISATION PROJECT

PROJECT: OUTAGE WORKS

SIZE: A3 | SCALE: 1:50

CAD - DO NOT AMEND MANUALLY

SITE LAYOUT

DRAWING No. A101 | REV C

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2. Description of Works - 66kV Distribution Power Line Works

The 66kV distribution line running between the Clover switchyard and terminating at the Mount Beauty switchyard consists of hard wood timber poles and power line cables. Approval is sought for the following works to increase the clearance to the conductors by 1m:

- Replacing two timber poles with two new timber poles of increased height.
- Raising the height of the cross arm of one timber pole.
- Repair and maintenance work to access tracks to access pole locations.

Figure 1 shows the location of the 66kV line from Clover Power Station to Mount Beauty Terminal Station.

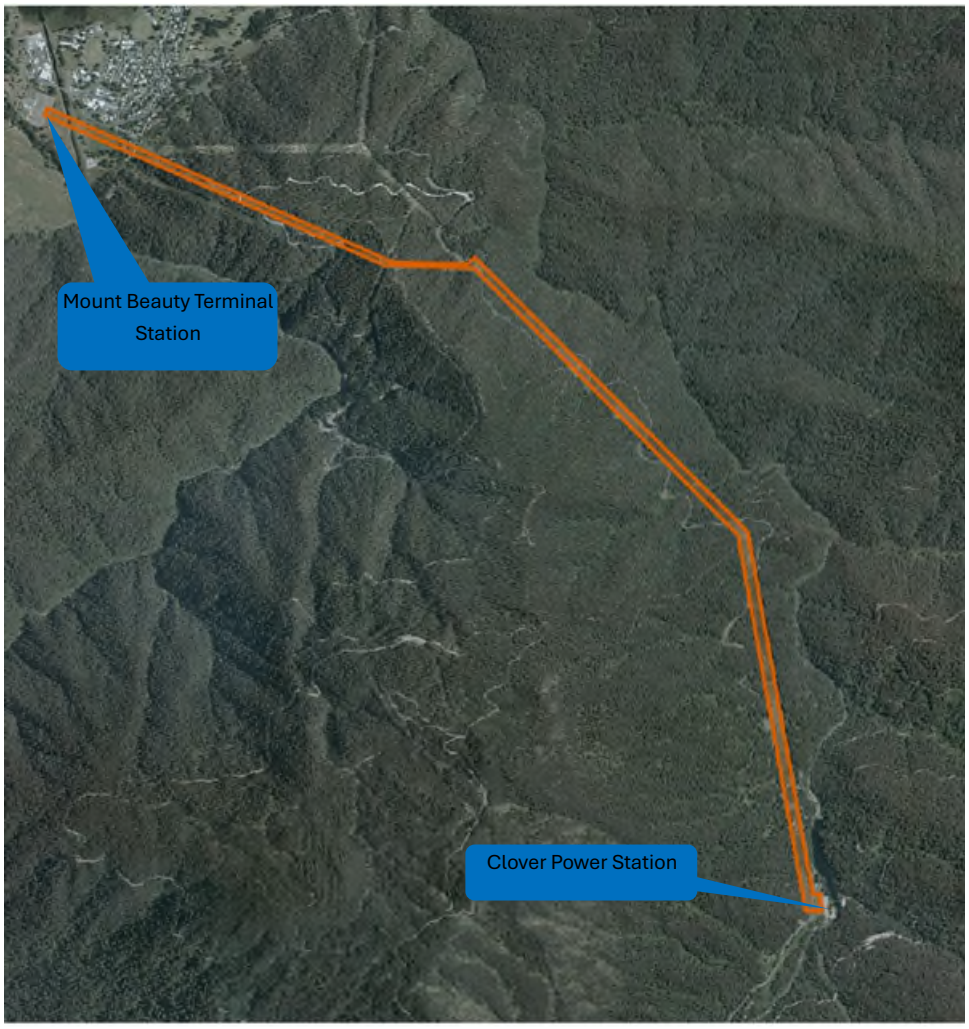

Figure 1 - 66kV Line from CLPS to Mount Beauty Terminal Station

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Figure 2 shows the pole replacement locations. A basic construction methodology has also been provided for each site location.

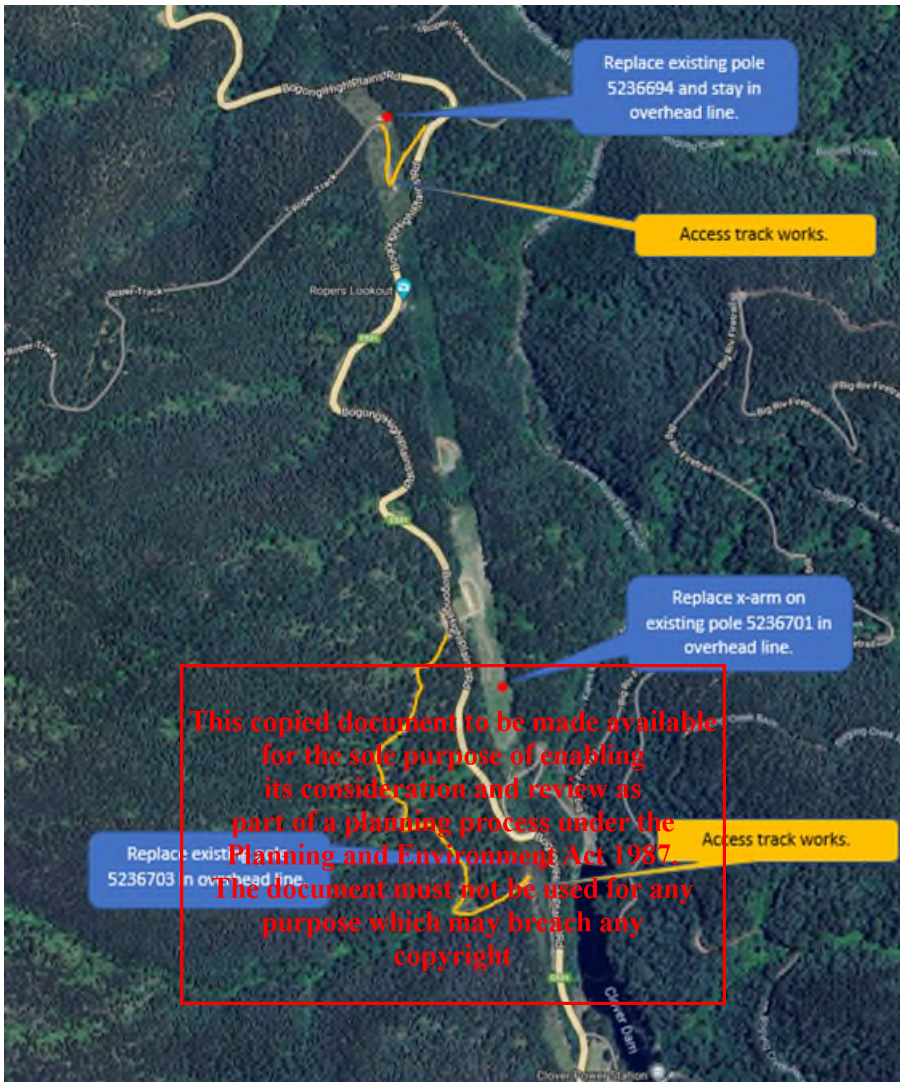

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Figure 2 - 66kV Line and work locations.

Construction Methodology

Total duration of the pole replacement works is maximum 2 days. Multiple crews will be deployed to each pole site to achieve the work over the two days.

A minimal amount of track clearing, and maintenance will be required prior to the 2-day pole replacement component, to ensure vehicles can access the poles on the Ropers Track and the unnamed track leading to pole 5236703.

Details on the construction methodology for pole replacement and access works is provided for each site below.

MBTS-CLPS Pole and Stayline Replacement 544 (BID 5236694) – northern pole

Construction will consists of cleaning and repairing the existing track to the minimum extent to allow access for 4wd vehicles and an excavator. The excavator will haul a wooden pole up the existing track. There will be no widening, realignment, re-surfacing or new sections of track created.

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Figure 3 - MBTS-CLPS Pole 544 (BID 5236694)

The excavator will create a new 4m x 5m construction pad. From this platform the excavator will dig a new 3m x 3m hole for the stay line and a 1m diameter hole for the new pole approximately 1m north of the existing hole. The new pole and stay line will then be installed and back filled with rapidmix concrete, local gravel and the remaining soil. The soil will be tamped and compacted as appropriate

MBTS-CLPS Cross Arm Replacement 551 (BID 5236701)

There is no civil work proposed at this pole site. Works proposed are confined to the raising of the existing cross arm on the existing wooden pole. Machinery access is proposed in a way that minimises impact to the area as much as possible. Figure 4 shows the existing track and pole location.

No vegetation removal is proposed. A tracked excavator will remove any fallen trees and rocks that inhibit 4wd access and these will be placed as close to their existing location as possible. A rubber tracked Elevated Work Platform will then be walked from the existing track down to the power pole. The cross arm will be raised and then the machinery will be walked back out to the road.

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Figure 4 - MBTS-CLPS Cross Arm Replacement 551 (BID 5236701)

MBTS-CLPS Pole Replacement 553 (BID 5236703)

Track works are required for access to this pole. Track repair work is required to repair a minor slip located on the adjacent embankment to the track. This will involve cleaning of the existing culvert and removal of slipped soil to re-instate the track. Local granite boulders may be placed to assist in re-stabilising the embankment.

Some tree branches will require pruning and 1 x large tree, located within the passageway of the track, will need to be removed to allow throughfare. Minor removal of dead wood off the track may be required to allow the machinery to pass through.

A small existing waterway crossing, dependent upon season flows, may require additional rock to be placed in situ to stabilise the access. Figures 5 and 6 provide an overview of the track works to be completed and the location of the pole.

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Construction access work is required as the site steepens considerably toward the pole location. Works include widening the track, to allow machinery to be manoeuvred into place. The track will require surface repair using in situ materials. An excavator will create a 7 x 12m pad for the crane. From this bench the excavator will walk down the existing overgrown track undertaking repairs and maintenance to allow access. The minimum amount of excavation and repairs will be undertaken to reach the pole location in a safe manner. The excavator will then create a working bench of 5 x 10 m for an EWP. The existing pole will be removed, and a new pole will be installed in a 2m x 2m hole dug approximately 1m north.

The crane will be utilised to assist in stabilising and raising the existing transmission line and to assist in installing the new pole.

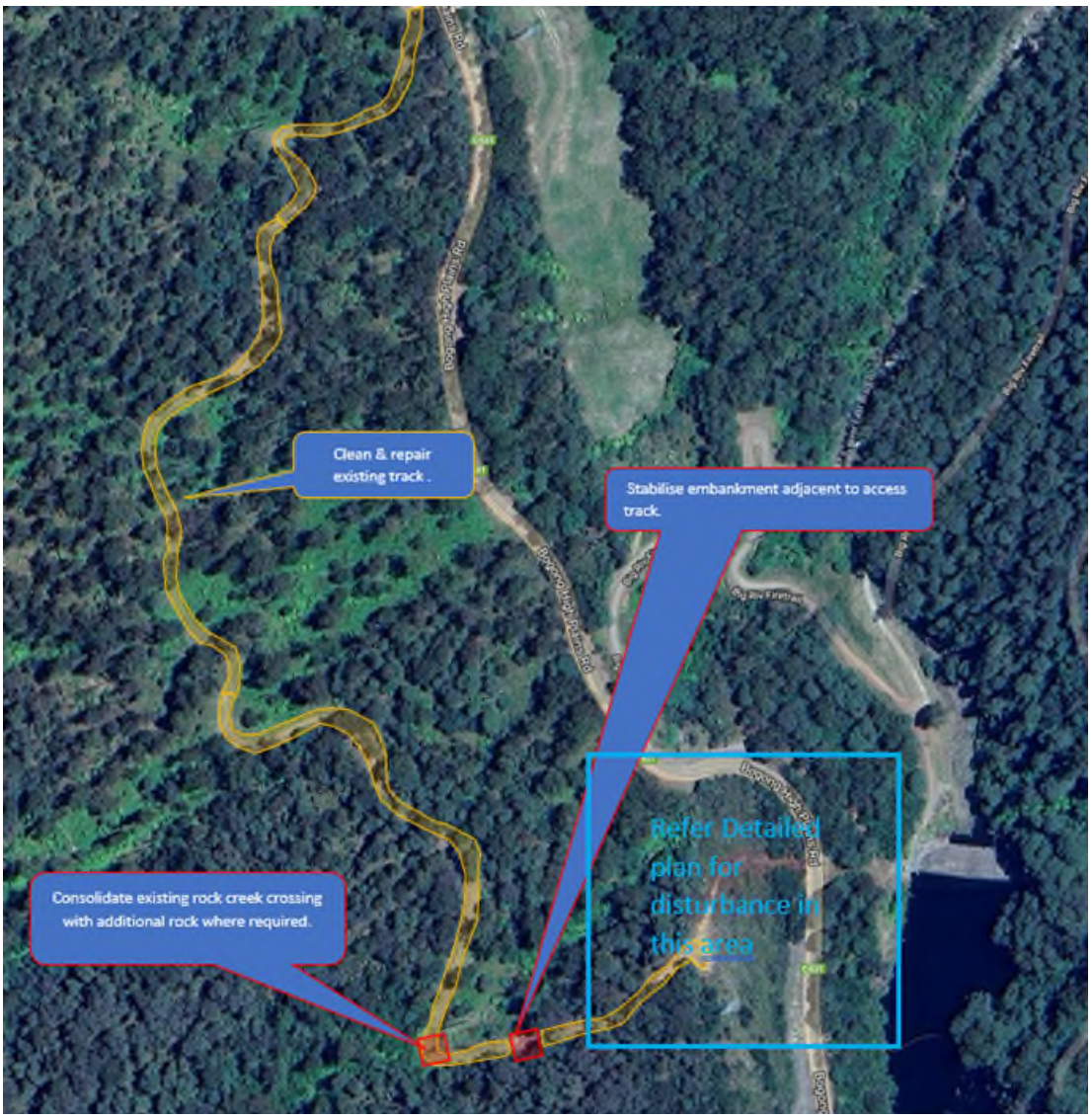

Figure 5 - MBTS-CLPS Pole Replacement 553 (BID 5236703) Overview

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Figure 6 - MBTS-CLPS Pole Replacement 553 (BID 5236703) Detail

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Appendix 3 – Land Manager's Consent

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Department of Energy, Environment and Climate Action

Our Ref: 00005422 and 00005337

Nigel Smith
Manager Clover Modernisation Project
Renewables Engineering
Hydro AGL
AGL Pty Ltd

Via email: nsmith5@agl.com.au
Cc: catherine.richardson@parks.vic.gov.au

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Dear Nigel Smith

PROPOSAL: **CLOVER MODERNISATION PROJECT**
ADDRESS: **CLOVER POWER STATION**
BOGONG HIGH PLAINS ROAD, BOGONG
ALLOT. 11A PARISH OF CARRUNO
Allot 11A\PP2361
Allot 11B\PP2361
Allot. 11 PARISH OF CARRUNO
Allot. 2008 PARISH OF CARRUNO
Allot. 2009 PARISH OF CARRUNO
Allot. 2001 PARISH OF CARRUNO
Allot. 2011 PARISH OF CARRUNO
AND SPECIFIED LAND IN THE ALPINE NATIONAL PARK

Thank you for your correspondence of 1 July 2024 and 8 July 2024, seeking various consents for the above-described proposal.

This letter provides Landlord Consent as required by the terms of your lease, for the minor upgrade works at the Clover Power Station. This letter also provides Public Land Manager Consent to enable a planning permit application to be made to Department of Transport and Planning under the *Planning and Environment Act 1987* for the specified minor upgrade works at the Clover Power Station and the specified works on the existing transmission line in the Alpine National Park.

Please note this letter does not provide Land Owner consent (details below).

The Department of Energy, Environment and Climate Action (DEECA) acts on behalf of the Minister for Environment as Land Owner for Crown land in Victoria. The Clover Power station site is on unreserved Crown land. It is leased to AGL Pty Ltd for the purposes of 'enabling the generation of electricity' (Tenure No. 3000230).

DEECA's assessment has been based on the following documents:

- Request for landowners consent correspondence prepared by AGL dated 8 July 2024
- Attachment 1 – title documents for the following land parcels:
  - Allot. 11A Parish of Carruno
  - Allot 11A\PP2361 Parish of Carruno
  - Allot 11B\PP2361 Parish of Carruno
  - Allot. 11 Parish of Carruno
  - Allot. 2008 Parish of Wermatong

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  - Allot. 2009 Parish of Wermatong
  - Allot. 2001 Parish of Carruno
  - Allot. 2011 Parish of Carruno
- Attachment 2 – Tailbay works prepared by Kusch Consulting Engineers dated 31 January 2024
- Attachment 3s – Site Layout Plans and site photos

The proposal is described as involving minor upgrade works to the existing Clover Hydroelectric Power Station and on Alpine National Park land where the existing transmission line traverses which is all part of the greater Kiewa Scheme operated by AGL Pty Ltd. These works are itemised in the documentation supplied by AGL and include:

- Internal works to the Clover Power Station including replacement of turbines, generators and inlet valves.
- Extension and raising of the existing tail bay (raised by 2.4m and extended by 3m). A temporary rock windrow will be located adjacent to the tail bay area to enable segregation of the work area from river flow for access and construction.
- Replacement and a minor relocation of the station services transformers.
- Creation of a hardstand laydown area to facilitate the segregation of pedestrian and machinery movements for safety.
- Installation of temporary site buildings for the construction period.
- Upgrade of the existing staff ablutions block with a like for like replacement within the same footprint.
- Minor vegetation clearing to facilitate the hardstand laydown area (scattered individuals only)
- Replacing four (4) poles along an existing 66kV transmission line and installing one (1) new pole to increase the height of the conductors by approximately 1m. Minor repairs and maintenance to existing power line access tracks. Part of this work is within Crown Land managed by Parks Victoria.

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MINOR UPGRADE WORKS ON THE CLOVER POWER STATION

Public Land Manager Consent

The Minister for Environment is the public land manager for the site in accordance with Clauses 36.03-3 and 73.01 of the Alpine Planning Scheme.

For the purposes of a planning permit application, this letter confirms that:

- The land owner has been notified of the proposed application as required by under Section 48 of the *Planning and Environment Act 1987*.
- As required by Clause 36.03-3 of the Alpine Planning Scheme, the public land manager consents to a planning permit application being made.

Landlord Consent:

DEECA's Direct Leasing Unit has confirmed the following in accordance with the requirements of your lease (Tenure No. 3000230):

> Landlord Consent is provided for the proposed upgrade works to the power station under section 5.1 of the Lease. This consent is conditional on AGL Pty Ltd complying with all laws, including relevant statutory, planning and building regulations.

Information related to seeking Land Owner Consent from DEECA

To facilitate the processing of your request for Land Owner Consent for the proposed use and development, we are providing additional required details. Enclosed is a Land Owner Consent request form to be completed.

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Further information is enclosed as follows:

- Ecological assessment
- Detailed plans that include specific details on the extent of earthworks and native vegetation removal, with dimensioned lengths and widths of works.

Please ensure that this information and completed form, is submitted to the general email address landadmin.hume@deeca.vic.gov.au for further review. Please make attention to Land and Built Environment so it can be allocated to the correct area for consideration.

DEECA understands that the proposed works involve removal of Native Vegetation and may result in changed water regimes within a stream (which could impact on Native Vegetation and / or items listed under the *Flora and Fauna Guarantee Act*. If so, these impacts will need to be described and assessed before DEECA can consider issuing a Land Owner Consent or a *Flora and Fauna Guarantee* Act permit for taking of listed items on public land.

WORKS TO EXISTING TRANSMISSION LINE (PARKS VIC MANAGED LAND)

Parks Victoria have confirmed with DEECA that they provide Public Land Manager Consent for a planning permit application to be lodged for the proposed works to the wires and power poles on land managed by Parks Victoria.

For the purposes of a planning permit application, this letter confirms that:

- The land owner has been notified of the proposed application as required by under Section 48 of the *Planning and Environment Act 1987*.
- As required by Clause 36.03-3 of the Alpine Planning Scheme, the public land manager consents to a planning permit application being made.

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The proposed upgrade works to the power lines and poles are on Parks Victoria managed land. Therefore, consent is required from Parks Victoria for these works. The primary approval required for the works within the National Park is a consent pursuant to Section 27 of the *National Parks Act*. DEECA notes that the AGL documents refer to this consent also being sought from Parks Victoria.

Before Parks Victoria can grant Section 27 consent, the Minister must agree that the works will not substantially affect the national park. As the powerlines are owned and operated by Ausnet, the consent will need to be entered into between Parks Victoria and Ausnet..

Parks Victoria has advised that they will require the following information to assess a Section 27 consent request:

- *Scope of works or plan for the reinstatement of the access tracks and establishment of pads*
- *Environmental due diligence – including impacts to native vegetation and threatened species and how these risks may be minimised*
- *Cultural heritage due diligence – including an assessment of possible impacts on Aboriginal cultural heritage and how these values will be protected and any requirements under the Aboriginal Heritage Act*
- *Maps showing the powerlines and access tracks within the ANP (proposed consent area)*
- *Confirmation of other statutory approvals in progress which may include FFG Act protected flora permit and/or Works on Waterways permit*

DEECA recommends you check these requirements with Parks Victoria before sending the application for the consent request. The Parks Victoria contact is Catherine Richardson – catherine.richardson@parks.vic.gov.au. The Parks Victoria email to lodge the consent application is info@parks.vic.gov.au.

If you have any queries regarding this matter, please contact Jordan Weddle or at jordan.weddle@deeca.vic.gov.au.

Yours sincerely.

Jordan Weddle
Senior Planning Officer - Energy
6/8/2024

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Department of Energy, Environment and Climate Action

Ref: 00005911

Nigel Smith
Manager Clover Modernisation Project
Hydro AGL
26 Bogong High Plains Road
Mount Beauty VIC 3699

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Via email: nsmith5@agl.com.au

Dear Nigel

CLOVER MODERNISATION PROJECT
PUBLIC LAND MANAGER CONSENT, ALLOTMENT 2002 PP2361

Thank you for your correspondence of 14 August 2024 seeking consent to make a planning permit application.

The application is to facilitate an upgrade of the Clover Power Station. The proposal is described as involving repairs and upgrades to an existing powerline access track to facilitate construction access to the 66kV distribution line to the existing Clover Power Station operated by Hydro AGL. These works are itemised in the documentation supplied by Hydro AGL and include:

- Clean & repair existing track
- Stabilise embankment adjacent to access track
- Consolidate existing rock creek crossing with additional rock where required

This letter provides Public Land Manager Consent (PLMC) to enable a planning permit application to be made to Department of Transport and Planning under the *Planning and Environment Act* 1987 for the specified minor upgrade works at Allotment 2002 PP2361.

Please note this letter is in addition to correspondence from DEECA on 6 August 2024, where PLMC and Landlord Consent were provided for other land parcels in the vicinity.

The Department of Energy, Environment and Climate Action (DEECA) acts on behalf of the Minister for Environment as Land Owner for Crown land in Victoria. The 2002 PP2361 site is part of the Alpine National Park and managed by Parks Victoria.

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Public Land Manager Consent

The Minister for Environment is the public land manager for the site in accordance with Clauses 36.03-3 and 73.01 of the Alpine Planning Scheme.

For the purposes of a planning permit application, this letter confirms that:

- The Land Owner has been notified of the proposed application as required by under Section 48 of the *Planning and Environment Act* 1987.
- As required by Clause 36.03-3 of the Alpine Planning Scheme, the Public Land Manager consents to a planning permit application being made.

If you have any queries regarding this matter, please contact Jordan Weddle at Jordan.weddle@deeca.vic.gov.au.

Yours sincerely.

Jordan Weddle
Senior Planning Officer - Energy
11 September 2024

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Your Reference:
Our Reference: NECMA-W-2024-00278

13 September 2024

NORTH EAST CATCHMENT MANAGEMENT AUTHORITY
P.O Box 616
Wodonga VIC 3689
Ph: 1300 216 513
Fax: 02 6043 7601
Website: www.necma.vic.gov.au
Email: necma@necma.vic.gov.au
ABN 53 229 361 440

Amy Daeche
AGL Hydro
26 Bogong High Plains Road
Mount Beauty Vic 3699
Via email: adaeche@agl.com.au

Dear Amy,

Re: Works on Waterways Application Reference No: NECMA-W-2024-00278

Thank you for your works on waterway permit application received on the 19 August 2024.

A permit under By-law No 2024/01 Waterways Protection is issued to Amy Daeche, AGL Hydro for the Tail Bay modification and associated works on the Kiewa River East Branch, on/adjacent to Allotment 11B, Parish of Carruno, subject to:

- The attached permit with conditions;
- Not eroding or damaging the surrounds of or polluting the designated waterway.

Permit holders are reminded that they must carry out the works in accordance with all applicable laws, including obtaining all necessary approvals and complying with the conditions of those approvals.

If you require further information, please contact Phil Elson on 1300 216 513 or via planning@necma.vic.gov.au.

Yours sincerely,

Tim Loffler
Manager Waterways and Floodplain Planning

CC: JORDAN WeddleDEECA jordan.weddle@deeca.vic.gov.au

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North East Catchment Management Authority
Level 1, 104 Hovell Street
WODONGA VIC 3690
Telephone: 1300 216 513
Facsimile: (02) 6043 7601
Email: necma@necma.vic.gov.au
Website: www.necma.vic.gov.au

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NORTH EAST CATCHMENT MANAGEMENT AUTHORITY

WATER ACT – 1989
(Section 160, 219 and 287ZC)
Permit Number: **NECMA-W-2024-00278**
Issued under By-law No. 2024/01 Waterways Protection

PERMIT TO CONSTRUCT AND OPERATE WORKS ON A WATERWAY

Subject to the conditions listed overleaf, the **North East Catchment Management Authority** authorises:

Name:	**Amy Daeche** **AGL Hydro**
Address:	**26 Bogong High Plains Road** **Mount Beauty Vic 3699**

to construct and operate the following works:

Tail Bay modifications and associated works

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on the following waterway (refer Figure 1):

Waterway:	**Kiewa River East Branch**	State Waterway No.:	**2/1**

at a site in, or adjacent to, the land described below:

Allotment 11B, Parish of Carruno

NOTE

1. The works identified above must be completed within 12 months of the date of issue of this permit. If these works are not completed within that period, this permit shall expire 12 months from the date of issue of this permit. Any renewed permit, if granted, may be subject to renewed conditions.
2. The Authority accepts no responsibility for any claims, suits or actions, arising from injury, loss, damage or death to any person or property, which may arise from the construction, maintenance, existence or use of the works.
3. The extent of the review by the Authority of the works identified above has been confined to a limited evaluation of the effect of the works on erosion in the waterway and flooding of adjacent lands and in particular has not included an evaluation of the structural soundness of the works.

Authorising Officer: Date of issue : **13 September 2024**

Tim Loffler, Manager Waterways and Floodplain Planning

OFFICIAL

Figure 1 - Site Location

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PERMIT CONDITIONS

General:

1. The works shall be undertaken or constructed in accordance with the details of the application and these conditions.
2. The North East CMA is to be notified[1] of the date of commencement of works at least seven days before commencing the works or activities.
3. The North East CMA is to be notified[1] upon completion of the works or activities.
4. The person or contractor undertaking these works shall be provided with a copy of these conditions and must not erode or damage the surrounds of or pollute the waterway.
5. The alignment of access tracks in the riparian zone should be selected such that the impact on vegetation is minimised.
6. Where access to the waterway is through public land or private property not in the ownership of the applicant, the person issued with this permit must obtain the written permission from the landholder(s) prior to commencing operations.
7. All machinery works shall, to the maximum extent possible, be undertaken from outside of the bed and banks of the waterway.
8. Disturbance of the bed and banks of the waterway and the use of construction plant and equipment within the waterways is to be kept to a minimum during construction.
9. The works must be undertaken with machinery that is suited to undertaking the works with minimal environmental damage.
10. Any movement across the waterway to access the opposite bank shall be at right angles to the flow where possible.
11. All vehicles and machinery on site must be properly cleaned or disinfected in accordance with the property biosecurity plan, if applicable, before arrival at and upon leaving the site.

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[1] Notification can be by phone 1300 216 513 or email: planning@necma.vic.gov.au

12. All operations must be undertaken in a manner that reduces the risk of activities potentially harming the environment or human health through pollution or waste and to meet the general environmental duty (GED) – refer to Erosion and sediment advice for businesses | Environment Protection Authority Victoria (epa.vic.gov.au) and Working within or adjacent to waterways for guidance.
13. No material of any sort shall be pushed into the waterway or left in a manner where it can slip or be moved by floodwaters, into the waterway.
14. All disturbed bank areas shall be graded to remove humps and hollows and top soiled and planted with locally occurring native species of grasses, shrubs and trees from the relevant Ecological Vegetation Class.
15. The waterway shall not be deviated in any manner for construction purposes except with the specific approval of the Authority. If necessary, the flow shall be pumped around the construction site or construction undertaken in stages with flow confined to one portion of the waterway.
16. Any works in the bed of the waterway should be designed and constructed so as not to impede low flows or fish passage.
17. Earthworks are to be scheduled to avoid periods of high flows.
18. Works are to be undertaken during dry weather conditions.
19. All Aboriginal cultural heritage (places, human remains and objects) are protected under the *Aboriginal Heritage Act 2006*. It is an offence to do an act that harms or is likely to harm Aboriginal cultural heritage. If you discover or uncover Aboriginal cultural heritage before or during your activity, work must cease immediately in that area and the discovery reported to Aboriginal Victoria 1800 762 003 who will provide further advice. If suspected human remains are discovered, all activity in the vicinity must stop immediately and the area avoided to ensure damage is minimised. The human remains must be left in place and protected from harm or damage. The Victoria Police and the Coroner's Office must be notified immediately.
20. The works shall be maintained in good order by the applicant or landowner.

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Excavation/Rock Wind Row:

21. The excavation and rock wind row works must be undertaken in a manner consistent with section 1.1 of the Description of Works and Plans – Clover Power Station submitted with the permit application.
22. The depth of the excavation must be no more than 1 metre or down to bed rock whichever is the lesser.
23. The excavation must not extend outside of the current waterway footprint.
24. The side slopes of the banks of the excavated section of the waterway shall be no steeper than 2 horizontal to 1 vertical.
25. Extraction must be undertaken in a manner which minimises disturbance to any mud, clay, or fine silt which could result in the discolouration of the water downstream. Suitable conservation measures are to be implemented to prevent vegetation, silt, chemicals and spillage from the operations either entering the waterway or moving downstream.
26. Excavation works must start at the most downstream end of the works site, and progress works upstream.
27. There must be no interference with, nor damage to, the banks of the waterway or the streamside vegetation, except at locations and in the manner approved by the Authority.
28. Only rock excavated from the waterway or from the currently stockpiled rock on the western bank adjacent to the worksite may be used in forming the rock wind row.
29. The rock wind row must be removed at the end of the construction period.

Tail Bay Modification:

30. The tail bay modification works must be undertaken in a manner consistent with section 1.2 of the Description of Works and Plans – Clover Power Station submitted with the permit application.
31. Modification works must be undertaken in a manner which minimises disturbance to any mud, clay, or fine silt which could result in the discolouration of the water downstream. Suitable conservation measures are to be implemented to prevent vegetation, silt, chemicals and spillage from the operations either entering the waterway or moving downstream.

32. All left over construction materials and debris must be removed from the waterway at the end of the works and appropriately disposed of.
33. On completion of the modifications the rock removed from the rock wind row may be placed against the tail bay retaining wall for stability and erosion protection in high flow events.

– END –

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Appendix 4 – Kiewa agreement & AusNet's Advice.

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Michele Nettlefold

From: Amanda Clarke
Sent: Monday, 22 July 2024 1:18 PM
To: SueAnn Lowther
Cc: Craig Davis; Nigel Smith; Michele Nettlefold
Subject: RE: [EXTERNAL] Clover Upgrade Works

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Many thanks Sue and Craig. I shall forward this on.

Much appreciated.

Amanda

From: SueAnn Lowther <SueAnn.Lowther@ausnetservices.com.au>
Sent: Monday, July 22, 2024 12:15 PM
To: Amanda Clarke <AClarke@agl.com.au>
Cc: Craig Davis <Craig.Davis@ausnetservices.com.au>
Subject: [EXTERNAL] Clover Upgrade Works

This Message Is From an External Sender
This message came from outside your organization.
Report Suspicious

Hi Amanda

Further to our discussions this morning, I am writing to confirm as follows:

AusNet has an existing 66kV powerline that falls within the definition of a “minor utility” under the Victorian Planning Provisions;
This line was constructed in the 1940s;
The 66kV powerline is connected to the Clover Flat substation;
The 66kV line services 701 existing customers;
There are existing use rights attached to this power line.

Best regards,

Sue-Ann Lowther (she/her)
Senior Property Officer
AusNet
Wurundjeri Country
Level 31, 2 Southbank Boulevard
Southbank Vic 3006 Australia
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AGREEMENT

THE MINISTER FOR CONSERVATION AND LAND MANAGEMENT

INFRATIL AUSTRALIA HYDRO PTY LTD

KANINA WILLOWS PTY LTD

CONTACT HYDRO AUSTRALIA PTY LTD

ADVERTISED
PLAN

MINTER ELLISON
LAWYERS
Rialto Towers, 525 Collins Street
MELBOURNE VIC 3000
DX 204 MELBOURNE

Telephone (03) 9229 2000
Facsimile (03) 9229 2565

Reference LTH PXM 1037005

KIEWA

THIS AGREEMENT is made the 18th day of December 1997.

BETWEEN:

THE MINISTER FOR CONSERVATION AND LAND MANAGEMENT of 240 Victoria Parade, East Melbourne

(the 'Minister')

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AND

INFRATIL AUSTRALIA HYDRO PTY LTD ACN 080 429 901 of Level 25, 1 Eagle Street, Waterfront Place, Brisbane, QLD, 4000 and

KANINA WILLOWS PTY LTD ACN 080 735 815 of Level 28, 367 Collins Street, Melbourne, Victoria, 3000 and

CONTACT HYDRO AUSTRALIA PTY LTD ACN 080 810 546 of Level 25, 1 Eagle Street, Waterfront Place, Brisbane, QLD, 4000

(together the 'Southern Hydro Partnership')

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RECITALS

A. The Hydro Electric Undertaking at Kiewa involves the hydro electric generation of electricity from water collected and stored in the Catchment Area by use of creeks, rivers, aqueducts, dams, tunnels and power stations, some of which are in part the property of or are leased or licensed by Southern Hydro Partnership ('the Scheme').

B. As a part of the electricity industry restructure in Victoria, land in the former Kiewa Crown Grant has been transferred to the Crown substantially for inclusion in the Alpine National Park.

C. Southern Hydro Partnership will have the benefit of various leases and licences entitling it to use parts of the former Kiewa Crown Grant and assets forming part of the Scheme.

D. Southern Hydro Partnership has certain rights and entitlements to harvest water pursuant to the *Water Act* 1989, such rights being separate to this Management Agreement.

E. This Management Agreement is intended to regulate the rights and obligations of the parties in relation to the activities carried out and their respective management obligations in the Catchment Area in recognition of the fact that some of the land within the Catchment Area is National Park pursuant to the *National Parks Act 1975*, unalienated Crown Land under the *Land Act 1958*, land reserved under the *Crown Land (Reserves) Act 1978* or reserved forest under the *Forests Act 1958*. Certain powers are also granted to the Minister by virtue of the *Conservation, Forests and Lands Act 1987* and to the Director of National Parks under the *National Parks Act 1975*.

F. The parties enter into this Agreement relying on all of those powers which they have to do so including (but not limited to) those contained within the *Conservation, Forests and Lands Act 1987*, the *Forests Act 1958*, the *Land Act 1958*, the *National Parks Act 1975*, the *Crown Land (Reserves) Act 1978* and any other enabling enactment.

G. The parties recognise the importance of Southern Hydro Partnership's ability to generate electricity from the Scheme and the importance of that supply of electricity in Victoria. Further, the parties recognise the importance of the Catchment Area for its intrinsic values including its Flora and Fauna Values, Reserved Forest Values, National Park Values, Reserved Land Values and natural Environment values.

H. The Minister enters into this Agreement in accordance with the power of the Minister to do so in relation to the category of land use identified in *Schedule 13* which land is classified and denoted in that Schedule as National Park, unreserved Crown land, temporarily and permanently reserved Crown land or Reserved Forest (collectively '**Land**').

I. Southern Hydro Partnership acknowledges that it is aware that the status of any or all land affected by this Agreement may alter by, without limitation, becoming subject to a change in management or tenure.

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PART ONE – INTERPRETATION

1. Application and Definitions

1.1 This Agreement applies to the Land irrespective of its designated land use category within the Catchment Area and whether it is reserved forest under the *Forests Act*, unreserved Crown land under the *Land Act*, national park under the *National Parks Act*, reserved land under the *Crown Land (Reserves) Act* or some other category of land use and shall commence on the date set out in item 1 of *Schedule 1* and will continue for the term set out in item 2 of *Schedule 1*. This Agreement shall continue (as amended from time to time) to bind the parties for the whole of the term and shall survive a change of land use category for any part of the Land.

1.1A (a) Without limiting the generality of Recital I, Southern Hydro Partnership acknowledges that areas of the Land may in the future be reserved for the purposes of an alpine resort ('**Alpine Land**') under an Act.

(b) This Agreement will be read down so as not to apply to any Alpine Land.

(c) Southern Hydro Partnership acknowledges that it may be obliged to enter into a separate agreement with the Minister to regulate the rights and obligations of the parties in relation to activities carried out and their respective management obligations in any Alpine Land and releases the Minister from any cost, loss, damage or expense suffered or incurred as a result of any part or parts of the Land becoming Alpine Land.

(d) The creation of Alpine Land contemplated by this clause does not constitute a material change in condition.

IN WITNESS WHEREOF the parties have executed this Agreement

SIGNED SEALED AND DELIVERED by)
SOUTHERN HYDRO PARTNERSHIP)
by its Attorney pursuant to a Deed of)
Attorney dated)
in the presence of:)

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PLAN

SIGNED by **THE MINISTER FOR**)
CONSERVATION AND LAND)
MANAGEMENT OF THE STATE OF)
VICTORIA FOR AND ON BEHALF OF)
THE CROWN IN RIGHT OF THE)
STATE OF VICTORIA in the presence of)

E. Brawley
Signature of witness

Elizabeth Brawley
Name of witness (print)

The Minister for Conservation and Land Management

SIGNED SEALED AND DELIVERED)
by **CONTACT HYDRO AUSTRALIA**)
PTY LIMITED by its Attorney pursuant)
to a Deed of Attorney dated 24 November 1997)
in the presence of)

Witness S. SCHLEICHER

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is affixed in accordance with its Articles of)
Association in the presence of:)

INFRATIL AUSTRALIA HYDRO PTY LIMITED ACN 080 429 901 THE COMMON SEAL OF

.....

Director

.....

Secretary

G. BAYNTON

Name of Director (printed)

S. SCHLEICHER

Name of Secretary (printed)

THE COMMON SEAL of KANINA WILLOWS PTY LTD)
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Association in the presence of:)

KANINA WILLOWS PTY. LTD. A.C.N. 080 735 815 THE COMMON SEAL OF

.....

Director

.....

Secretary

Name of Director (printed)

D. GRILLO

Name of Secretary (printed)

THE COMMON SEAL of CONTACT HYDRO AUSTRALIA PTY LTD)
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.....

Director

.....

Secretary

.....

Name of Director (printed)

.....

Name of Secretary (printed)

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SCHEDULE 1

(CLAUSE 1.1)

Item 1:	Commencement Date:	18 December 1997 SB
Item 2:	Term:	99 years on and from the Commencement Date provided that:

1. after expiration of the first 50 years of the Term the Minister may (without prejudice to its rights under the Agreement) terminate this Agreement by providing notice in writing to Southern Hydro Partnership of the Minister's intention to do so, in which case this Agreement will terminate 10 years after Southern Hydro Partnership receives the notice; and

2. after expiration of the first 30 years of the Term Southern Hydro Partnership may (without prejudice to its rights under the Agreement) terminate this Agreement by providing notice in writing to the Minister of its intention to do so, in which case this Agreement will terminate 10 years after the Minister receives the notice.

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Appendix 5 – Ecological due diligence

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Clover Power Station Modernisation Project: Ecological Due Diligence assessment

Prepared for AGL Hydro Partnership Pty Ltd

16 July 2024

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Document information

Report to:	AGL Hydro Partnership Pty Ltd
Prepared by:	Georgina Zacks
Biosis project no.:	40073
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Document control

Version	Internal reviewer	Date issued
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- Amanda Clarke, Nigel Smith, Michele Nettlefold (AGL Hydro Partnership)

Biosis staff involved in this project were:

- Nina Matheis (Mapping)
- Sally Mitchell (Quality Assurance – Mapping)
- Matt Gibson (Quality Assurance - Ecology)

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Biosis acknowledges the Aboriginal and Torres Strait Islander peoples as Traditional Custodians of the land on which we live and work.

We pay our respects to the Traditional Custodians and Elders past and present and honour their connection to Country and ongoing contribution to society.

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1 Introduction

1.1 Background

Biosis Pty Ltd has been engaged by AGL Hydro Partnership Pty Ltd (AGL) to complete a desktop ecological (flora and fauna), cultural heritage (aboriginal and historical) and environmental planning due diligence assessment of land at Bogong High Plains Road, Bogong within the Alpine Shire (study areas) (Map 1).

AGL is seeking to undertake the following works within the study areas (the 'proposed works'):

- Modification of the concrete tail bay within Clover Dam.
- Creation of a hardstand area as part of access requirements for the tail bay works.

This report outlines ecological constraints across the study areas and the implications under relevant Commonwealth and State legislation and policy.

1.2 Scope of the ecological assessment

This assessment includes the following scope of works:

- Undertake background reviews for each study area. Database searches and spatial data relevant to each locality, encompassing an area within 10 kilometres of the study areas, will be obtained:
  - DEECA's Victorian Biodiversity Atlas.
  - DEECA's NatureKit mapping tool.
  - DEECA's Native Vegetation Regulation Map (NVR Map).
  - DCCEEW's Protected Matters Search Tool.
  - Ecological vegetation class (EVC) modelling.
- Review previous reports and planning documents relevant to the projects.
- Provide background information relevant to the projects, including:
  - results of database searches.
- Provide a description of the method for undertaking the desktop assessment and any limitations of the work.
- Undertake a preliminary site inspection of the proposed study areas.
- Detail the findings of the desktop and preliminary site assessment, including:
  - A description of the extent and type of native vegetation in the study areas.
  - The modelled condition of native vegetation within the study areas.
  - Whether the study areas support threatened flora and fauna species or listed threatened communities.
  - The extent of noxious weed or other environmental threats that need to be considered during project planning.

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- Assess the implications of relevant biodiversity protection legislation to the projects including identification of any permits or approvals that may be required.
- Assess the potential impacts of the proposed works. Identify any opportunities to avoid or mitigate these potential impacts through design or management and provide an assessment of the likely resultant level of impacts if mitigation measures are adopted.
- Make recommendations for any further assessments that may be required (such as targeted searches for threatened species). An indication of the proposed scope, time involved and appropriate timing (e.g. season, time prior to construction) of such work will also be provided.

1.3 Assumptions and limitations

The intent of this investigation is to characterise habitats and ecological values. Database searches, and associated conclusions on the likelihood of species to occur within the study areas, are reliant on external data sources and information managed by third parties. A preliminary site investigation was undertaken however detailed ecological assessments have not been undertaken.

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2 Project description

2.1 Project location

The study areas are located adjacent to Clover Dam on the Bogong High Plains Road, within the Alpine Shire municipality (Map 2). The study areas have been significantly disturbed by historical development. Land surrounding the study areas is managed by Parks Victoria and remains undeveloped, primarily used for public conservation.

2.2 Proposed works

Details of proposed work within each study area are shown in Table 1. The site extent of each study area is shown in Map 2.1 – 2.3.

Table 1 Proposed works within the study areas

Study Area	Description
Surfacing a hardstand area including parking and secure storage area	This section is adjacent to the Clover Power Station. Its purpose is for access requirements associated with the tail bay works and ongoing car parking for the Clover Power Station.
Clover Tail Bay 2	Works will occur within the existing tail bay at the southern side as part of the Clover Power Station's refurbishments. This work will increase the height of the tail bay to maintain suitable tailwater levels and allow for it to function more efficiently with the ongoing upgrades.

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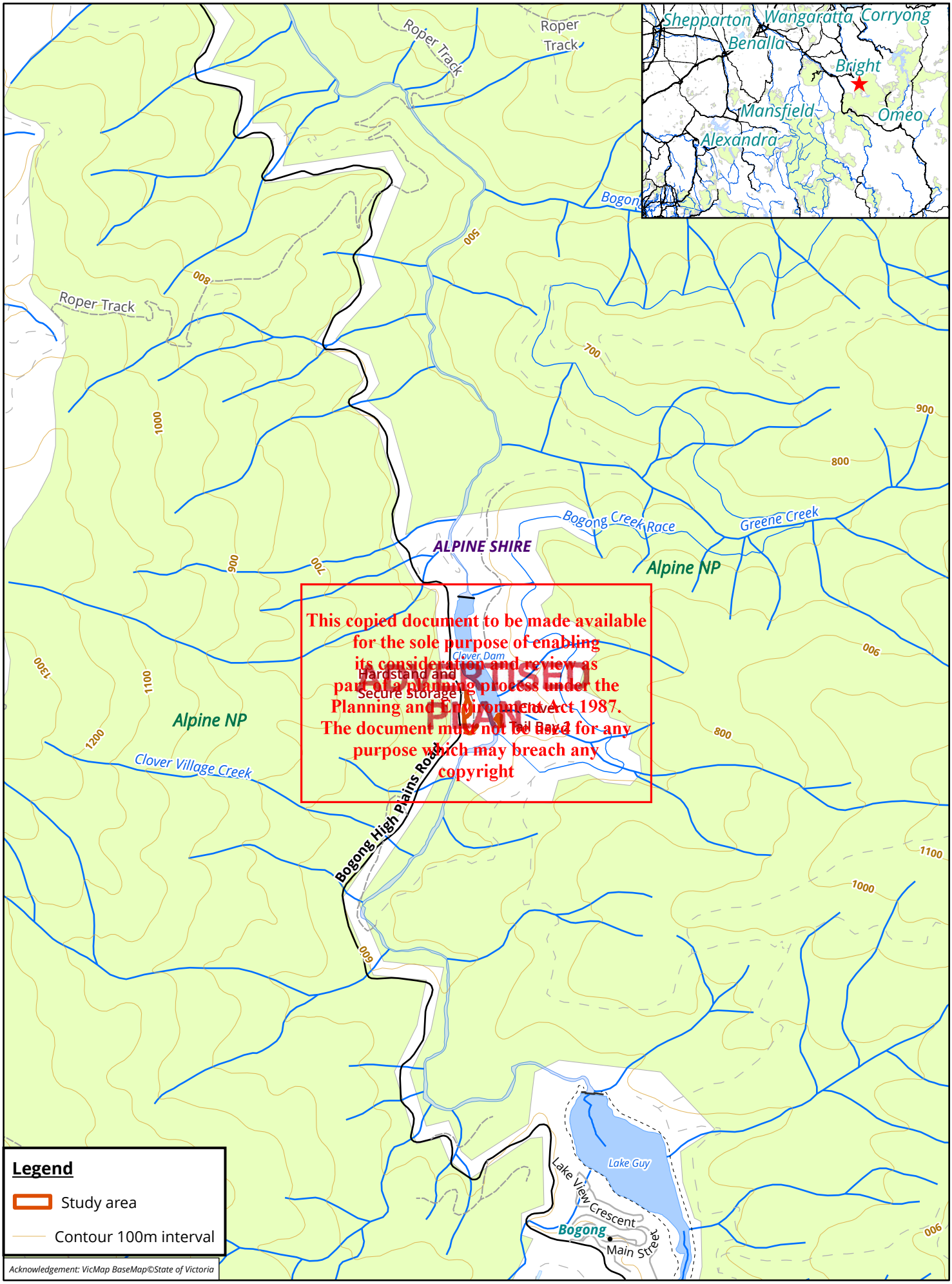

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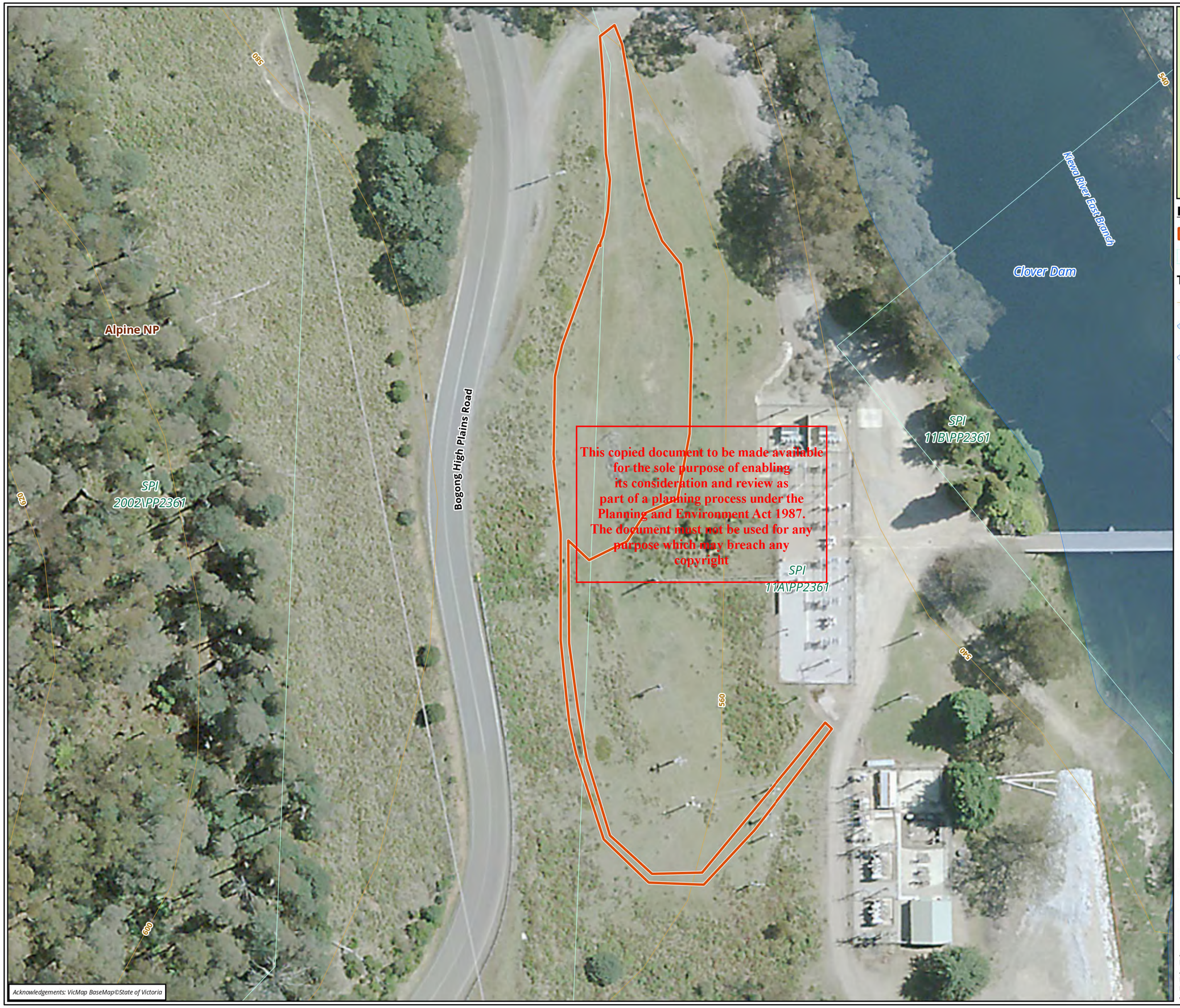
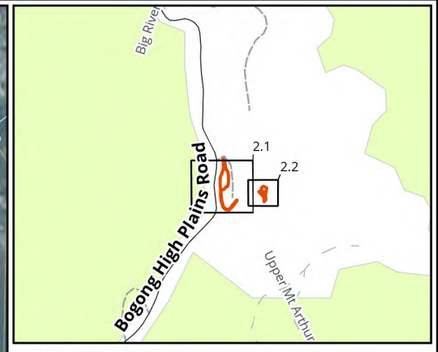
Map 1 Location of the study area

Matter: 40073,
Date: 11 July 2024,
Prepared for: JD, Prepared by: NM, Last edited by: nmatheis
Layout: 40073_F1_Locality
Project: P:\40000s\40073\Mapping\40073_ECO_CH_DD_Clover.aprx

0 250 500 750 1,000
Meters
Scale: 1:20,000 @ A4
Coordinate System GDA2020 MGA Zone 55

N





Legend

- Study area
- Current parcel boundary

Topography

- Contour 10m interval
- Lake/Dam
- Watercourse area (natural double sided stream)

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Map 2.1 Extent of the study area - Hardstand and Secure Storage

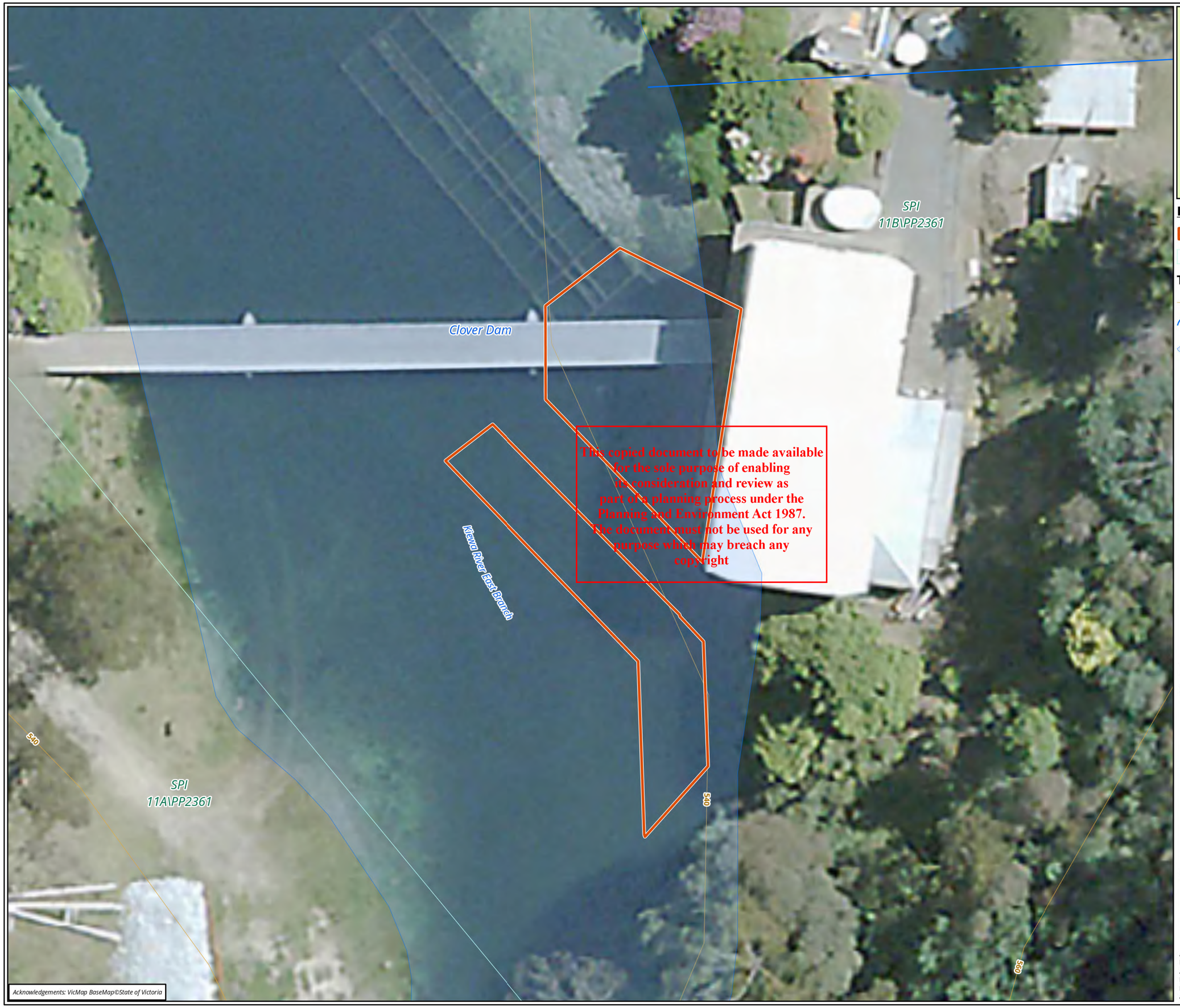
0 5 10 15 20 25 30

Metres
Scale: 1:700 @ A3
Coordinate System: GDA2020 MGA Zone 55

N

biosis

,
Date: 11 July 2024 ,
, Last edited by: nmatheis
Layout: 40073_F2_SiteExtent
Project: P:\40000s\40073\Mapping\40073_ECO_CH_DD_Clover.aprx



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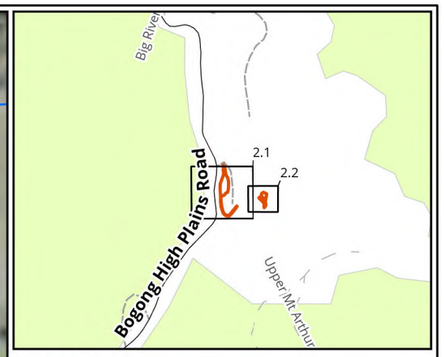

Legend

- Study area
- Current parcel boundary

Topography

- Contour 10m interval
- River or creek
- Lake/Dam

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Map 2.2 Extent of the study area - Clover Tail Bay 2

0 5 10

Metres
Scale: 1:300 @ A3
Coordinate System: GDA2020 MGA Zone 55

N

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Date: 11 July 2024 ,
, Last edited by: nmatheis
Layout: 40073_F2_SiteExtent
Project: P:\40000s\40073\Mapping\
40073_ECO_CH_DD_Clover.aprx

3 Methods

3.1 Background research

In order to provide a context for the study areas, information about flora and fauna within 10 kilometres of the study areas (the 'search area') was obtained from relevant biodiversity databases, many of which are maintained by the Victorian Government Department of Energy, Environment and Climate Action (DEECA) or the Australian Government Department of Climate Change, Energy, Environment and Water (DCCEEW) (Appendix 1 and Appendix 2). Records from the following databases were collated and reviewed:

- DEECA's Victorian Biodiversity Atlas (VBA), including the 'VBA_FLORA25, FLORA100 & FLORA Restricted' and 'VBA_FAUNA25, FAUNA100 & FAUNA Restricted' datasets (DSE 2009).
- DCCEEW's PMST for matters protected by the Commonwealth EPBC Act.

Other sources of biodiversity and land cover information were examined including:

- Aerial imagery and topographic information from DEECA's Mapshare products.
- DEECA's NatureKit mapping tool.
- DEECA's Habitat Importance maps.
- DEECA's Native Vegetation Information Management (NVIM) system.
- Planning Scheme overlays relevant to biodiversity based on http://planningschemes.dpcd.vic.gov.au.

Flora and fauna species described in this report follows the Victorian Biodiversity Atlas (VBA).

3.1.1 Mapping

Mapping has been produced using a Geographic Information System (GIS) based on desktop information and remote-sense datasets. Electronic GIS files containing the relevant biodiversity and heritage spatial data are available to incorporate into concept plans. However, this mapping may not be sufficiently precise for detailed design purposes and has not been subject to ground validation.

3.2 Site inspection

A preliminary site inspection was undertaken by Georgina Zacks (Senior Botanist) on 14 February 2024, during which the broad ecological values of the study areas were mapped. Biosis staff Dan Carpenter (Senior Heritage Consultant), AGL staff Amanda Clarke and two AusNet staff members were also present.

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4 Results

4.1 Vegetation and fauna habitat

The study areas have been highly modified for construction of the Clover Dam and associated works.

The proposed hardstand area has been previously cleared and excavated for construction of the Bogong High Plains Road, Clover Dam and powerline easement. Vegetation on the verges of the Bogong High Plains Road is limited, being subject to routine maintenance activities including spraying and slashing. Trees and shrubs have been removed from the area which now supports a grassy understorey dominated by Couch *Cynodon dactylon* subsp. *dactylon*. Scattered common native species tolerant of disturbance are also present including Bracken *Pteridium esculentum* and Common Tussock Grass *Poa labillardierei*. The Clover Dam tail bay construction area supports aquatic habitat and artificial concrete structures.

Surrounding the study areas are tracts of contiguous remnant montane and foothill vegetation within the Highlands – Northern Fall bioregion. This area was significantly burned during the 2003 bushfires, and now supports a high level of standing deadwood. Most of the surrounding areas are relatively undeveloped, with the exception of road and hydroelectric infrastructure.

Native vegetation

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses' (Clause 73.01).

The Guidelines classify native vegetation into two categories (DELWP 2017):

- A **patch** of native vegetation (measured in hectares) is one of the following:
  - An area of native vegetation, with or without trees, where at least 25% of the total perennial understorey cover is native plants.
  - An area with three or more native canopy trees where the drip line (i.e. the outermost boundary of a tree canopy) of each tree touches the drip line of at least one other tree, forming a continuous canopy.
  - Any mapped wetland included in the current wetlands map, available in DEECA systems and tools.
- A **scattered tree** is defined as a native canopy tree that does not form part of a patch of native vegetation.

Despite the historic and ongoing disturbances, the study areas support some native species, however, diversity is restricted to common native grasses and shrubs that are tolerant of disturbance. Native vegetation is present as scattered individual species.

Patch vegetation (as defined above) is classified into ecological vegetation classes (EVCs), which are the standard unit for classifying vegetation types in Victoria. DEECA's vegetation modelling shows vegetation within the study area as the following EVCs:

- Herb-rich Foothill Forest EVC 23.
- Damp Forest EVC 29.
- Wet Forest EVC 30.

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Native vegetation is present as scattered individual plants within the proposed hardstand area. A planning permit will be required for its removal (subject to exemptions to Clause 52.17). No patch vegetation or scattered trees (as defined above) are present in the study areas. Therefore, while a permit for native vegetation removal is required (subject to exemptions), further assessments under the Guidelines (DELWP 2017) and native vegetation offsets will not be required for this scope of works.

4.2 Threatened species

Threatened species recorded or predicted to occur within 10 kilometres of the study areas or from the relevant catchment (aquatic species) are listed in Appendix 1.1 (flora) and Appendix 2.1 (fauna). An assessment of the likelihood of these species occurring in the study areas and an indication of where within the sites (i.e. which habitats or features of relevance to the species) is also included in those appendices. A summary of those species recorded or with a medium or higher likelihood of occurring in the study area is provided below.

The study areas and broader database search area contain records of 116 FFG Act listed flora species. As the study areas are close to Falls Creek, the project search area incorporates high alpine habitats. Therefore, the majority of FFG Act listed species that appear in database search results are restricted to high-alpine habitats, or are locally common sub-alpine species.

The locally common sub-alpine listed species are geographically restricted due to their occurrence in the Australian Alps and are thus considered rare at a state level, but are regionally common species that, in some instances, make up the majority of species in the mid- and understorey. This report focuses only on flora species that are perceived to be threatened at the local scale, and which may occur within the study areas. As the study areas are in a foothill environment (Glover Dam is 540 metres above sea level [ASL]), they do not provide suitable habitat for alpine or sub-alpine species.

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No FFG Act or EPBC Act threatened flora species were recorded in the study area during the preliminary site assessment or are considered likely to occur in the study areas.

Whilst the species was not identified within database searches, Dingo *Canis lupus dingo* is also considered to have a medium likelihood of occurrence within the study area. The species is known to move through the landscape using roads (such as Bogong High Plains Road) as movement corridors. The species has been included in Table 2 below.

Table 2 Summary of EPBC Act and FFG Act listed species most likely to occur in the study area

Species name	Listing status	Area of value within the study area
Latham's Snipe	Vulnerable under EPBC Act	Fringes of Clover Dam.
Gang-gang Cockatoo	Endangered under EPBC Act Endangered under FFG Act	Native vegetation, particularly large hollow-bearing trees.
Pilotbird	Vulnerable under EPBC Act Vulnerable under FFG Act	Native vegetation.
Powerful Owl	Vulnerable under FFG Act	Native vegetation and large hollow-bearing trees.
Platypus	Vulnerable under FFG Act	Clover Dam.
Dingo	Vulnerable under FFG Act	May pass through the study area on occasion utilising the existing powerline easement or Bogong High Plains Road as

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Species name	Listing status	Area of value within the study area
		a movement corridor.
Tussock Skink	Endangered under FFG Act	Vegetation and exposed rock with surrounding shelter.
Variable Spiny Crayfish	Endangered under FFG Act	Clover Dam and Kiewa River East branch.
Murray Spiny Crayfish	Threatened under FFG Act	Clover Dam and Kiewa River East branch.

4.3 Threatened ecological communities

A 10 kilometre buffer search of the study area indicates two nationally significant and three state significant threatened communities occur, or are predicted to occur, including:

- Alpine Sphagnum Bogs and Associated Fens (Endangered under the EPBC Act).
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered under the EPBC Act).
- Alpine Bog Community (threatened under the FFG Act).
- Alpine Snowpatch Community (threatened under the FFG Act).
- *Caltha introloba* Herbland Community (threatened under the FFG Act).

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Four of these threatened communities occur in sub-alpine and alpine environs. The other community (White Box – Yellow Box – Blakely's Red Gum community) occurs at elevations lower than that of the study areas, generally on hilly to undulating landscapes with soils of moderate fertility.

Following the preliminary site assessment, it is confirmed that none of these threatened ecological communities occur within the study areas.

4.4 Other ecological values

Clover Dam and Kiewa River East branch provides habitat for a range of aquatic and amphibious species.

4.5 Risk summary

- Native vegetation (scattered individuals) is present within hardstand study area and a permit for the removal of native vegetation will be required (subject to relevant exemptions to Clause 52.17).
- No FFG Protected flora are present in the works locations.
- The preliminary assessment confirms that no native patch vegetation or scattered trees are present within the study areas. Therefore, further assessment under the Guidelines (DELWP 2017) and native vegetation offsets are not required for this scope of works.
- No threatened flora is considered likely to occur within the study area.
- Based on the preliminary assessment, there is a medium or higher likelihood of occurrence for 10 threatened fauna species (Table 2). Provided the mitigation measures included in Section 4.6 are adhered to the works are considered unlikely to significantly impact any threatened fauna.

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- Targeted surveys for any listed threatened species are not considered necessary.

4.6 Mitigation measures

The below measures are intended to minimise the ecological impacts of the proposed works. Relevant points should be incorporated into a site-specific Construction Environmental Management Plan (CEMP) to ensure that the significant risk of adverse environmental impacts is minimised.

4.6.1 Planning and pre-construction mitigation measures

- Ensure all environmental constraints are clearly communicated to construction personnel and incorporated into the workforce induction program.

4.6.2 Dam de-watering

- Find a suitable receiving environment for any water drained from the dam and obtain all relevant discharge licences.
- Develop a de-watering salvage plan for fish, frogs and other aquatic fauna that may be inhabiting the dam. This should be documented in the project CEMP and appropriate licences for fauna handling will be required.

4.6.3 Construction

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- Detail that all contractors should be inducted by the project manager prior to commencing works.
- Clearly delineate works sites. Retained native vegetation adjacent to works sites must be protected by means of high visibility temporary fencing / marking. Fencing or marking must be installed before construction work commences and these areas treated as 'no-go' zones.
- Confine construction activities to existing disturbed areas and tracks where present.
- Minimise soil and materials transportation within, into or out of the study area to reduce the spread of weeds.
- Retain and reinstate any habitat features encountered during construction (e.g. rocks, logs) to ensure they can continue to provide habitat post-construction.
- Manage construction works to minimise discharge of sediments and other pollutants. Suitable sediment control measures are provided in *Construction Techniques for Sediment Pollution Control* (EPA 1991) and *Guideline for Environmental Management: Doing it right on subdivisions, Temporary environmental protection measures for subdivision construction sites* (EPA 2004).
- Ensure suitable provisions are in place to prevent spills of fuel or lubricant, during the operation of plant and construction equipment. These precautions should include (but are not limited to) restricting re-fuelling locations to stable surfaces, ensuring spill kits are on hand, adherence to specific re-fuelling procedures, ensuring staff are in attendance at all times during refuelling.
- Maintain all protective fencing or markers in good repair throughout construction.
- Maintain all sediment control measures in good repair and regularly inspected to ensure adequate performance throughout construction.
- Undertake instream works during low flow/low storage periods where possible.

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- Do not undertake works after periods of heavy rainfall or flooding.
- A suitably qualified ecologist should be on site during dewatering to act as fauna spotter catcher and undertake aquatic fauna salvage and relocation.
- A fauna entrapment and injury management protocol should be documented in the project CEMP.

4.6.4 Post-construction

- Reinstate disturbed areas upon completion of works. Disturbed ground should be stabilised using an appropriate geo-fabric material and previously regenerating areas should be revegetated using locally indigenous understorey species. This process should be documented in the project CEMP rehabilitation plan.

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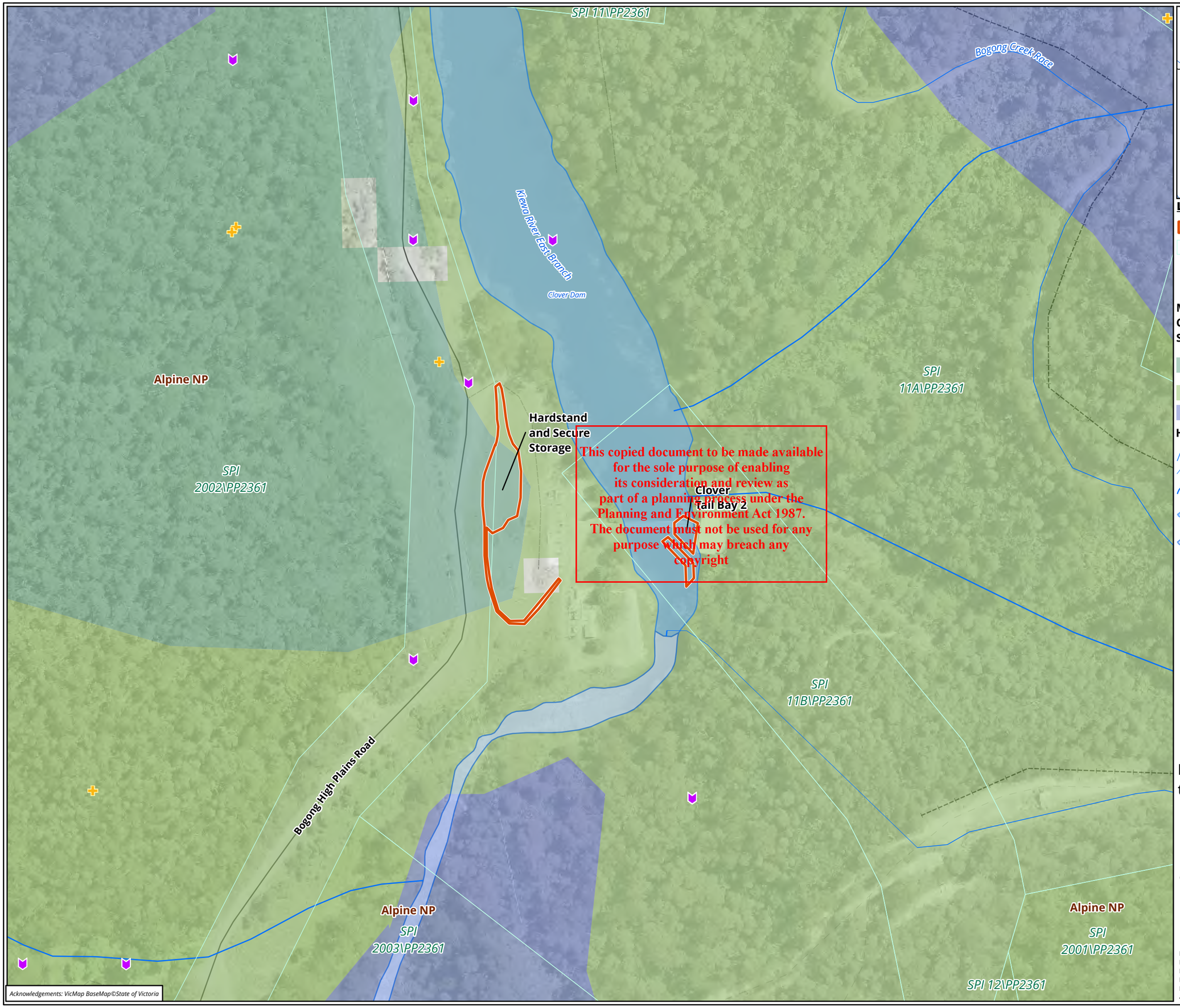

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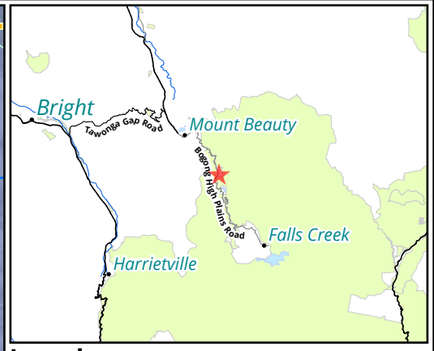

Legend

- Study areas
- Current parcel boundary
- VBA fauna record
- VBA flora record

Modelled 2005 Ecological Vegetation Classes (with Bioregional Conservation Status)

- 23 Herb-rich Foothill Forest (Least Concern)
- 29 Damp Forest (Least Concern)
- 30 Wet Forest (Least Concern)

Hydrology

- Channel/aqueduct (major)
- Drain/channel
- River or creek
- Lake/Dam
- Watercourse area (natural double sided stream)

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Map 3 Ecological features of the study area

0 25 50 75 100

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA2020 MGA Zone 55

N

biosis

Matter: 40073,
Date: 11 July 2024 ,
Prepared for: JD, Prepared by: NM, Last edited by: nmatheis
Layout: 40073_F3_EcoModelled
Project: P:\40000s\40073\Mapping\
40073_ECO_CH_DD_Clover.aprx

5 Legislation

5.1 Commonwealth legislation

5.1.1 *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on *Matters of National Environmental Significance* (MNES) protected under the Act. Based on our preliminary assessment, there is potential for three EPBC Act listed fauna species (Table 2) to occur within the study areas. Threatened flora and threatened ecological communities are highly unlikely to occur within the study areas.

Gang-gang Cockatoo and Pilot Bird have limited suitable habitat within the study area, however, have extensive suitable habitat in the surrounding forested areas and may pass through the study areas when dispersing between more favourable habitats. Given the small area of impact required for the proposed works and as these works will not impact on key habitat features for these species, the proposed construction within the hardstand and tail bay areas is highly unlikely to significantly impact on either of these species.

Latham's Snipe has limited suitable habitat within the study area, however more suitable shallow aquatic habitat is present at the fringes of Clover Dam to the north of the study area. Given the small area of impact required for the proposed works and as there is limited suitable habitat within the proposed works areas, construction within the hardstand and tail bay areas is highly unlikely to significantly impact on this species.

Based on the above, it is considered highly unlikely that a significant impact on a MNES would result from the proposed works. A referral of the project to the Australian Government Minister for the Environment to determine whether the action requires approval under the EPBC Act is therefore unlikely to be required, however AGL may choose to refer the project for legal certainty.

5.2 State legislation

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5.2.1 *Flora and Fauna Guarantee Act 1988* (FFG Act)

The FFG Act is the key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes. Under the FFG Act a permit is required from DEECA to 'take' protected flora species from public land.

The FFG Act defines public land as *Crown land or land owned by, or vested in, a public authority,* while private land is defined as *any land other than public land.* A public authority is defined in the FFG Act as a body established for a public purpose by or under any Act and includes:

- an Administrative Office
- a Government Department
- a municipal council
- a public entity
- a State-owned enterprise.

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As the proposed works will occur on Crown land managed by DEECA (leased by AGL), a permit would be required to remove any protected flora species from within the study area. Following recent changes to the list of protected flora species in May 2024, no protected flora are present within the proposed works areas.

5.2.2 *Environment Protection Act 2017 (EPA Act)*

The *Environment Protection Act 2017* (EP Act) provides a legal framework for the systematic and strategic management of potential and realised environmental impacts. The *Environment Protection Act 2017*, the Environment Protection Regulations 2021 and Environment Reference Standards (ERS) introduced from 1 July 2021 provide a regulatory framework designed to prevent harm by eliminating or minimising risks of harm to human health and the environment.

Under the regulatory changes, State Environment Protection Policy (SEPP) (Waters) will not continue as a subordinate instrument under the EP Act, and its formal statutory role ended on 1 July 2021. Much of the content of SEPP (Waters) has been saved under the Environment Protection Transitional Regulations 2021 for a period of 2 years after the commencement of the Environment Protection Regulations 2021.

As SEPP (Waters) contributes to the state of knowledge and provides guidance on compliance with the General Environmental Duty (GED), the policy remains relevant to the protection and management of Victoria's water environments, including surface waters, estuarine and marine waters and groundwaters.

The following clauses of SEPP (Waters) applicable to the project remain relevant as they provide guidance for compliance with the GED under the *Environment Protection Act 2017*:

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Clause 42 – Construction activities:

- *Minimise soil erosion, land disturbance and discharge of sediment and other pollutants to surface waters*
- *Where construction activities impinge on surface waters, construction managers need to monitor affected surface waters to assess whether beneficial uses are being protected*

Clause 45 – Native vegetation protection and rehabilitation:

- *Minimise the removal of and rehabilitate native vegetation within or adjacent to surface waters*

The ERS requires that aquatic ecosystem values be protected. Environmental quality objectives and indicators are defined to protect beneficial uses (i.e. the uses and values of the water environment) and an attainment program provides guidance on protection of the beneficial uses. Impacts to surface water quality as a result of the project must not result in changes that exceed background levels and/or the water quality objectives specified for Clover Dam to protect surface water uses and values.

To ensure that direct and indirect (e.g. runoff) impacts to surface water quality do not exceed the background levels and/or water quality objectives, it is recommended that AGL prepare and implement a site-specific Constructional Environmental Management Plan, which includes all EPA approved erosion control measures.

These temporary control measures should be inspected during rainfall events to ensure controls are able to prevent/minimize offsite discharges and longer-term impacts. Sediment control measures selected should also reflect the level of protection required to protect the ecological values within Kiewa River East, downstream of the project area.

Link to further information: http://www.gazette.vic.gov.au/gazette/Gazettes2021/GG2021S245.pdf

needed.

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5.2.3 Environment Effects Act 1978

The *Environment Effects Act 1978* establishes a process to assess the environmental impacts of a project. If applicable, the Act requires that an Environment Effects Statement (EES) be prepared by the proponent. The EES is submitted to the Minister for Planning and enables them to assess the potential environmental effects of the proposed development.

The general objective of the assessment process is to provide for the transparent, integrated and timely assessment of the environmental effects of projects capable of having a significant effect on the environment (DTP 2023).

The *Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978* (DTP 2023) provide a range of criteria that can be used to determine whether an EES may be required for a project. These criteria relate to individual potential environmental effects and a combination of (two or more) potential environmental effects. The decision as to whether an EES is required is ultimately at the discretion of the Minister for Planning.

An assessment of this project compared to the EES referral criteria has been prepared and is shown below in Table 3.

Table 3 Assessment of the project against the individual and combined EES referral criteria

EES referral criteria	Project impact and response
Individual types of effects	
Potential clearing of 10 ha or more of native vegetation from an area that: • **is of an Ecological Vegetation Class identified as endangered by the Department of Sustainability and Environment (in accordance with Appendix 2 of Victoria's Native Vegetation Management Framework); or** • **is, or is likely to be, of very high conservation significance (as defined in accordance with Appendix 3 of Victoria's Native Vegetation Management Framework); and** • **is not authorised under an approved Forest Management Plan or Fire Protection Plan**	This criterion is not triggered as: • 10ha of native vegetation is not being removed. • No threatened flora or ecological communities have been identified within the study area.
Potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria	This criterion is not triggered by the project. Only individual records of some FFG Act listed species and no EPBC Act threatened flora species were recorded in the study area during the preliminary site assessment or are considered likely to occur in the study areas.
Potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'	This criterion is not triggered by the project as the study area not within a close proximity to any listed Ramsar sites and will not directly impact on a DIWA wetland. The nearest Ramsar site is the Gippsland Lakes located approximately 120km away from the study areas.
Potential extensive or major effects on the health or biodiversity of aquatic, estuarine or marine	This criterion has very low potential to be triggered as all works will be designed to minimise all impacts and will avoid impacts to the beds and banks of streams in the

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EES referral criteria	Project impact and response
ecosystems, over the long term	Kiewa River (freshwater aquatic habitats). Strict sediment control and design responses will be put in place to manage soil erosion and waterway sedimentation risks. Furthermore, these sites have been heavily disturbed through previous land management and will not be impacted further.
Potential extensive or major effects on the health, safety or well-being of a human community, due to emissions to air or water or chemical hazards or displacement of residences	This criterion has not been assessed. It is out of scope of this assessment.
Potential greenhouse gas emissions exceeding 200,000 tonnes of carbon dioxide equivalent per annum, directly attributable to the operation of the facility.	This criterion has not been assessed. It is out of scope of this assessment.
A combination of potential environmental effects	
Potential clearing of 10 ha or more of native vegetation, unless authorised under an approved Forest Management Plan or Fire Protection Plan	This criterion is not triggered less than 10ha of native vegetation is being removed.
Matters listed under the *Flora and Fauna Guarantee Act 1988*: • **potential loss of a significant area of a listed ecological community; or** • **potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including as a result of loss or fragmentation of habitats; or** • **potential loss of critical habitat; or** • **potential significant effects on habitat values of a wetland supporting migratory bird species**	This criterion is unlikely to be triggered as: • No significant area of FFG listed species or communities is proposed for removal. • No critical habitat has been declared in the project area. • No wetlands will be impacted by the project.
Potential extensive or major effects on landscape values of regional importance, especially where recognised by a planning scheme overlay or within or adjoining land reserved under the *National Parks Act 1975*	This criterion is unlikely to be triggered as the scope of the works only seeks to modify the dam to the minimum extent to provide increased operational efficiency.
Potential extensive or major effects on land stability, acid sulphate soils or highly erodible soils over the short or long term	This criterion has not been assessed. It is out of scope of this assessment.
Potential extensive or major effects on beneficial uses of waterbodies over the long term due to changes in water quality, stream flows or regional groundwater levels	This criterion has not been assessed. It is out of scope of this assessment.
Potential extensive or major effects on social or economic well-being due to direct or indirect displacement of non-residential land use activities	This criterion has not been assessed. It is out of scope of this assessment.
Potential for extensive displacement of residences or	This criterion is not considered applicable due to the low

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EES referral criteria	Project impact and response
severance of residential access to community resources due to infrastructure development	impact nature of the project as well as the dam be located far away from any residential areas.
Potential significant effects on the amenity of a substantial number of residents, due to extensive or major, long-term changes in visual, noise and traffic conditions	This criterion is not considered applicable due to the low impact nature of the project as well as the dam be located far away from any residential areas.
Potential exposure of a human community to severe or chronic health or safety hazards over the short or long term, due to emissions to air or water or noise or chemical hazards or associated transport	This criterion is not considered applicable due to the low impact nature of the project.
Potential extensive or major effects on Aboriginal cultural heritage	This criterion is unlikely to be triggered as a recent previous CHMPs undertaken in close proximity to the study areas found that there were no areas of archaeological potential as well as no Aboriginal cultural heritage. Additionally based on a recent assessment of the site there is low potential for in situ Aboriginal cultural heritage to be present within the study area. If any is present, it is likely to be lithics in low densities in disturbed contexts. This is largely due to the significant amounts of ground disturbance caused through the construction of the dam. Additionally, there are no Aboriginal places located within the study area and none located within 200 metres of the activity area. Because of this it is considered that it is unlikely that the proposed works will cause extensive or major impacts to Aboriginal Cultural heritage.
Potential extensive or major effects on cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the Heritage Act 1995.	There are currently no registered places within the study areas.

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Based on the above self-assessment of proposed works, it is unlikely that the project will have a significant environment effect. It is considered that the proposed project does not meet the referral criteria for a single potential environment effect or combined potential environmental effects.

It is noted that the only way to get legal certainty on whether nor not an EES is required for a project is to submit an EES referral and have the Minister for Planning determine if an EES is required.

5.2.4 *Planning and Environment Act 1987* (PE Act) – Alpine Planning Scheme

The *Planning and Environment Act 1987* controls the planning and development of land in Victoria and provides for the development of planning schemes for all municipalities. The Alpine Planning Scheme (Planning Scheme) applies to the study areas.

The project is subject to the following planning controls and provisions under the Planning Scheme which relate to biodiversity values:

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- Clause 52.17 - Native Vegetation

The study areas are not subject to any heritage and environmental planning overlays (e.g. Environmental Significance Overlay, Significant Landscape Overlay, and Vegetation Protection Overlay).

Permit requirements and exemptions

Clause 52.17 – Works proposed to be undertaken within the hardstand area will impact on native vegetation and a permit is required to remove native vegetation.

There is an exemption available at Clause 52.17-7 for utility service providers and utility installations.

> *Native vegetation that is to be removed, destroyed or lopped to the minimum extent necessary:*
>
> - *to maintain the safe and efficient function a Minor utility installation; or*
> - *by or on behalf of a utility service provider to maintain or construct a utility installation in accordance with the written agreement of the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987).*

AGL does not have a written agreement with the Secretary of DEECA and the power plant does not meet the definition of a minor utility installation.

All required information under the Guidelines (DELWP 2017) and native vegetation offset requirements has already been prepared to support a permit application under Clause 52.17. If a permit is sought, further assessments will not be required for this scope of works.

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5.2.5 Fisheries Act 1995

The *Fisheries Act 1995* provides a legislative framework for the regulation, management and conservation of Victorian fisheries including aquatic habitats. A person must not take, injure, damage, destroy or release any protected aquatic biota. Protected aquatic biota includes all fish or aquatic invertebrate or community that is listed under the FFG Act. The potential for protected aquatic biota to be injured, damaged or destroyed cannot be completely avoided.

For the taking of any FFG Act listed fish or community, an FFG permit is required from DEECA. For FFG listed aquatic invertebrates that do not meet the definition of fish, a protected aquatic biota permit is required from DEECA. Biosis can assist with this application if requested.

5.2.6 *Catchment and Land Protection Act 1994* (CaLP Act)

The CaLP Act identifies and classifies certain species as noxious weeds or pest animals and provides a system of controls on noxious species.

Four CaLP Act listed weed species were recorded in the study areas during the preliminary site assessment, including Spear Thistle *Cirsium vulgare*, African Love Grass *Eragrostis curvula*, St John's Wort *Hypericum perforatum* and Common Blackberry *Rubus anglocandicans*.

AGL and the land manager must take all reasonable steps to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of and as far as possible eradicate established pest animals.

Further information is at http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds

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5.2.7 *Water Act 1989*

The project has potential to have some impacts within a designated waterway. Because of this, a Works on Waterway permit is likely required as the project is likely to fall under the category of "Utilities – Services". It is recommended that the relevant water catchment, specifically North East Water Catchment Management Authority, be contacted to confirm if a works on a waterway permit or any additional requirements are needed.

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6 Implications and recommendations

6.1 Summary

- The hardstand study area supports native vegetation as scattered individual plants.
- As native vegetation is present and will be impacted by works a permit for the removal of native vegetation will be required.
- As native vegetation on site is not consistent with patch vegetation per the Guidelines (see Section 3.3), native vegetation offsets will not be required for the proposed works.
- No protected flora species are present within the proposed works areas.
- Based on a desktop assessment of the habitats present, 10 threatened fauna species are considered to have a medium or higher likelihood of occurrence in the study area.

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Appendices

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Appendix 1 Flora

The following abbreviations and symbols are relevant to this Appendix:

Code	Meaning	Reference
National listings (EPBC Act)		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
PMST	Protected Matters Search Tool	
State listings (FFG Act)		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (public land only)	
Weed status (CaLP Act and DAWE Weeds of National Significance)		
SP	State prohibited species	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
RP	Regionally prohibited species	
RC	Regionally controlled species	
R	Restricted species	
WoNS	Weed of National Significance	Australian Weeds Strategy (DAWR 2017)
Other		
#	Native species outside its natural range	Victorian Biodiversity Atlas (VBA)

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Appendix 1.1. Listed flora species

The following table includes threatened flora species that have potential to occur within the study area, sourced from the VBA and PMST (accessed on 22 January 2024). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST predicts the species has potential to occur. Some flora habitat descriptions are reproduced from the Royal Botanic Gardens Victoria (RBGV 2024) with permission.

Table 4 Threatened flora species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Argyrotegium nitidulum	Shining Cudweed	VU		1980	PMST	Restricted to damp, open grassland communities between Mt Cope and Mt Nelse.	**Negligible**	Study area not within recorded species range.
Colobanthus curtisiae	Snowy Colobanth	VU			PMST	Grassland and grassy woodland; known in Victoria from a small number of records in the Alpine National Park.	**Negligible**	Nearby records but species restricted to subalpine zone. No subalpine habitat within study area.
Euphrasia crassiuscula subsp. glandulifera	Thick Eyebright	VU	cr	2004	PMST	Alpine grasslands, heathlands and herbfields.	**Negligible**	Nearby records but species restricted to alpine zone. No alpine habitat within study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Euphrasia eichleri	Bogong Eyebright	VU	e	2004	PMST	Low open heath, grassland, and Sphagnum bogs in alpine and higher subalpine tracts.	**Negligible**	Nearby records but no suitable alpine or subalpine habitat within study area.
Leucochrysum albicans subsp. tricolor	White Sunray	EN	e		PMST	Grasslands of the Victorian Volcanic Plains, primarily on acidic clay soils derived from basalt, with occasional occurrences on adjacent sedimentary, sandy-clay soils.	**Negligible**	Some historic records but these examples may be the result of hybridisation between *Leucochrysum alpinum* and *Leucochrysum albicans* subsp. *albicans.* No suitable habitat within the study area.
Lobelia gelida	Snow Pratia	VU	e		PMST	Alpine grasslands, on heavy dark mud around seasonal pools and creek edges.	**Negligible**	Known from two sites approximately 37km from the study area. No suitable alpine habitat

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								within the study area.
Prasophyllum morganii	Mignonette Leek-orchid	VU	x		PMST	Known from only one location near Cobungra in Snow Gum open forest at about 1000 m ASL. Presumed to be extinct.	**Negligible**	Population thought to number less than 500 individuals, previously considered extinct. Typically found at elevations above that of the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Pterostylis oreophila	Blue-tongue Greenhood	CR			PMST	Damp, shady habitat along watercourses.	**Negligible**	This species typically occurs in subalpine habitat associated with *Leptospermum grandiflorum*. No such habitat is likely to be present in the study area.
Thesium australe	Austral Toad-flax	VU	e		PMST	Most commonly in damp grassland and woodland, including subalpine grassy heathlands.	**Low**	Few recent records nearby. Limited suitable damp grassland or woodland habitat likely to be present in study area.
Viola improcera	Dwarf Violet	EN			PMST	High altitudes above 1300m up to at least 1800m in open shrubland, and swamp-gum woodland.	**Negligible**	No nearby records and no suitable subalpine or alpine habitat within study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Xerochrysum palustre	Swamp Everlasting	VU	cr		PMST	Sedge-swamps and shallow freshwater marshes and swamps in lowlands, on black cracking clay soils.	**Negligible**	No nearby records. Limited habitat predicted to be present in study area.

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Appendix 2 Fauna

Abbreviations and symbols relevant to this Appendix:

Code	Meaning	Reference
National listings		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
CD	Conservation dependent	
PMST	Protected Matters Search Tool	
State listings		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (fish only)	
Pest animal status		
PS	Declared pest animal	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
N	Declared noxious aquatic species	*Victorian Fisheries Act 1995*
Other		
*****	Introduced species	Victorian Biodiversity Atlas (VBA) (DELWP 2020)
‡‡	New record of aquatic species for catchment	
D	Diadromous species (migrates between freshwater and saltwater during lifecycle)	
E	Euryhaline species (capable of occurring in marine and freshwater environments)	
P	Present but abundance not recorded	

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Appendix 2.1. Listed fauna species

The following table includes a list of threatened fauna species that have potential to occur within the study area, sourced from the VBA and PMST (accessed on 24 January 2024). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST predicts the species has potential to occur.

Table 5 Threatened fauna species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Gallinago hardwickii	Latham's Snipe	VU			PMST	A migrant to Australia from July to April occurring in a wide variety of permanent and ephemeral wetlands. Prefers open freshwater wetlands with nearby cover, but also recorded on the edges of creeks and rivers, river-pools and floodplains. Forages in soft mud at edge of wetlands and roosts in a variety of vegetation around wetlands including tussock grasslands, reeds and rushes, tea-tree scrub, woodlands and forests.	**Medium**	May pass through study area on occasion, suitable habitat at the fringes of Clover Dam
Rostratula australis	Australian Painted-snipe	EN	cr		PMST	Shallows of well-vegetated freshwater wetlands.	**Negligible**	No suitable habitat
Calyptorhynchus lathami	Glossy Black-Cockatoo	VU	v	2013		Forests and woodlands with Buloke Allocasuarina spp.	**Negligible**	No suitable habitat

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Callocephalon fimbriatum	Gang-gang Cockatoo	EN	e	2019	PMST	S Vic to E NSW. Forests and woodlands from coast to alpine areas. Autumn-winter dispersal from highlands to lower elevations. Forages in eucalypts, acacias and some exotic garden trees and shrubs.	**Medium**	Species known from the local area and is highly likely to utilise forests surrounding the study area, however there is limited suitable habitat for this species within the study area due to previous disturbance (i.e. clearing). May still occupy study area on occasion.
Neophema chrysostoma	Blue-winged Parrot	VU			PMST	A range of coastal, sub-coastal and semi-arid regions throughout south-eastern Australia. Nests in tree hollows in coastal eucalypt forests and woodlands. Feeds on seeds of a range of native grasses and herbs.	**Negligible**	No suitable habitat
Lathamus discolor	Swift Parrot	CR	cr		PMST	A range of forests and woodlands, especially those supporting nectar-producing tree species. Also well-treed urban areas.	**Negligible**	No suitable habitat

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Hirundapus caudacutus	White-throated Needletail	VU	v	1993	PMST	An almost exclusively aerial species within Australia, occurring over most types of habitat, particularly wooded areas.	**Low**	Likely to utilise airspace above the study area on occasion but unlikely to be present in terrestrial vegetation within the study area.
Calidris ferruginea	Curlew Sandpiper	CR	cr		PMST	Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Negligible**	No suitable habitat
Calidris acuminata	Sharp-tailed Sandpiper	VU			PMST	Prefers muddy edges of shallow fresh or brackish wetlands with inundated or emergent low vegetation. Occasionally use flooded paddocks and other ephemeral wetlands.	**Negligible**	No suitable habitat
Melanodryas cucullata	Hooded Robin	EN	v		PMST	Woodlands of eucalypt, Mallee, semi-cleared farmland.	**Low**	Limited suitable habitat.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Pycnoptilus floccosus	Pilotbird	VU	v	2010	PMST	E Vic to SE NSW. Largely ground-dwelling among leaf litter, logs and lower storey vegetation of wet sclerophyll forests and rainforest. Less often, alpine and coastal woodlands.	**Medium**	May be present in forests surrounding the study area, however limited suitable habitat within the study area due to previous disturbances (i.e. clearing). May still be present in study area on occasion.
Grantiella picta	Painted Honeyeater	VU	v		PMST	Dry open woodlands and forests. Typically forages for fruit and nectar in mistletoes and in tree canopies.	**Low**	Limited suitable habitat.
Anthochaera phrygia	Regent Honeyeater	CR	cr	1965	PMST	A range of dry woodlands and forests dominated by nectar-producing tree species.	**Low**	Limited suitable habitat.
Stagonopleura guttata	Diamond Firetail	VU	v		PMST	Open forests and woodlands with a grassy ground layer.	**Low**	Limited suitable habitat.
Climacteris picumnus	Brown Treecreeper	VU		2000	PMST	Open eucalypt forests, woodlands and Mallee, often where there are stands of dead trees.	**Low**	Limited suitable habitat.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Dasyurus maculatus maculatus	Spot-tailed Quoll	EN	e	2001		Rainforest and wet and dry sclerophyll forests and woodlands.	**Low**	Suitable forest habitat surrounding the study area but limited recent records. Habitat within the study area significantly modified due to previous disturbances (i.e. clearing)
Petauroides volans	Southern Greater Glider	EN	e	2020	PMST	Wet and damp sclerophyll forest with large hollow-bearing trees.	**Low**	Present in forests surrounding the study area, however limited suitable habitat within the study area due to previous disturbances (i.e. clearing)
Petaurus australis	Yellow-bellied Glider	VU	v	2020	PMST	Sclerophyll forest with large hollow-bearing trees, prefers mature eucalypt dominated forest and woodland. Distributed along South-eastern Australia.	**Low**	Present in forests surrounding the study area, however limited suitable habitat within the study area due to previous

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								disturbances (i.e. clearing)
Burramys parvus	Mountain Pygmy-possum	EN	e	2021	PMST	Alpine rock screes and boulder fields supporting heathy vegetation.	**Low**	Unlikely to be present at low altitudes, no suitable boulderfield habitat.
Potorous longipes	Long-footed Potoroo	EN	e		PMST	Temperate rainforest, riparian forest and wet and dry sclerophyll forest.	**Low**	Suitable habitat but no recent records. Limited suitable habitat within the study area.
Mastacomys fuscus mordicus	Broad-toothed Rat	EN	v	2019	PMST	Sub-alpine Woodland, Heathland, Sedgeland, and sedge-dominated areas within forest.	**Low**	Unlikely to be present at low altitudes, limited suitable habitat within the study area.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Pseudomys fumeus	Smoky Mouse	EN	e		PMST	Coastal heath and heathy woodland, wet forest, sub-alpine heath and dry sclerophyll forest.	**Low**	Species not known from the local area (no previous records) and limited suitable habitat within the study area due to previous disturbances (i.e. clearing)
Pteropus poliocephalus	Grey-headed Flying-fox	VU	v		PMST	Rainforest, wet and dry sclerophyll forest, woodland and urban areas.	**Low**	No recent records or known camps nearby. May fly over on rare occasions. Limited suitable habitat within the study area.
Liopholis guthega	Guthega Skink	EN	cr		PMST	Alpine woodlands, grasslands and heathlands with sub-surface boulders.	**Negligible**	No suitable habitat
Liopholis montana	Mountain Skink	EN	e		PMST	Alpine woodland and montane forest environments along the Great Dividing Range in Victoria to the upper Yarra River valley. An exceptionally low altitude population has also been recorded in the Wombat SF. Relatively little is known about the species' biology and ecology.	**Low**	Difficult species to rule out given the relatively limited understanding of its rage and altitude limits, however generally considered to

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								occur above 620m above sea level (asl). The study area is at 540 m asl.
Cyclodomorphus praealtus	Alpine She-oak Skink	EN	cr	2002	PMST	Sparsely-treed subalpine woodland, alpine heathlands and native and introduced alpine grasslands.	**Negligible**	No suitable habitat
Pseudemoia cryodroma	Alpine Bog Skink	EN	e	2008	PMST	Alpine and Sub-alpine Grassland, Heathland and Woodland.	**Negligible**	No suitable habitat
Litoria spenceri	Spotted Tree Frog	CR	cr	2021	PMST	Rocky areas along streams within forest and woodland.	**Low**	Species recorded from Kiewa River West branch (at 800m ASL) and captive bred Spotted Tree Frog individuals were released in Mount Beauty in early 2024. However the species has not been recorded in Kiewa River East branch and habitat is considered unsuitable due

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								to regulation of water flow.
Litoria raniformis	Growling Grass Frog	VU	v		PMST	Still or slow-flowing waterbodies and surrounding terrestrial vegetation.	**Negligible**	No suitable habitat
Litoria verreauxii alpina	Alpine Tree Frog	VU	cr		PMST	Alpine and subalpine woodland, heath and grassland; breeds in a variety of natural and artificial waterbodies including dams and reservoirs.	**Low**	No records of subsp. *alpina* from this altitude. All records of *Litoria verreauxii* at this altitude assumed to be *Litoria verreauxii verreauxii*
Galaxias rostratus	Flat-headed Galaxias	CR	v		PMST	Still or slow-moving waters of rivers, billabongs, lakes and swamps.	**Low**	Limited suitable habitat.
Maccullochella macquariensis	Trout Cod	EN	e		PMST	Streams characterised by a high abundance of large woody debris.	**Low**	Limited suitable habitat.
Maccullochella peelii	Murray Cod	VU	e		PMST	A diverse range of stream habitats in the Murray-Darling basin; principally the main channels of rivers and their major tributaries.	**Low**	Limited suitable habitat.
Macquaria australasica	Macquarie Perch	EN	e		PMST	Streams with clear water and deep, rocky holes with abundant cover.	**Low**	Limited suitable habitat.
Thaumatoperla alpina	Alpine Stonefly	EN	e	2016	PMST	In and around steep, stony and cool alpine streams.	**Low**	Limited suitable habitat.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Euastacus bispinosus	Glenelg Spiny Crayfish	EN	e	2018		Cool, shaded, flowing areas of rivers and streams, which have intact riparian vegetation and high water quality.	**Low**	Previously record downstream of the study area in the Kiewa River East branch, however the study area is outside the species' natural distribution (which is restricted to the Victorian Midlands, Victorian Volcanic Plain and Naracoorte Coastal Plains bioregions).
State significance								
Geopelia cuneata	Diamond Dove		v	2019		Drier woodlands and scrub, spinifex and mulga.	**Low**	Limited suitable habitat.
Lewinia pectoralis	Lewin's Rail		v	1965		Swamps, dense riparian vegetation and saltmarsh.	**Low**	Limited suitable habitat.
Ardea alba modesta	Eastern Great Egret		v	2017		Flooded crops, pasture, swamps, lagoons, saltmarsh, sewage ponds, estuaries, dams, roadside ditches. Breeds in trees standing in water.	**Low**	Suitable habitat but species not common in foothill/montane environments.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Spatula rhynchotis	Australasian Shoveler		v	2018		Variety of wetlands, with a preferance for large, parmanent, freshwater lakes/swamps with dense fringing vegetation.	**Low**	Suitable habitat but species not common in foothill/montane environments.
Aythya australis	Hardhead		v	2019		Deep freshwater swamps and wetlands, with abundant aquatic and terrestrial vegetation for roosting. Can occur in sheltered estuaries.	**Low**	Suitable habitat but species not common in foothill/montane environments.
Oxyura australis	Blue-billed Duck		v	1989		Open or densely vegetated wetlands.	**Low**	Suitable habitat but species not common in foothill/montane environments.
Accipiter novaehollandiae	Grey Goshawk		e	1901		Rainforest, gallery forest, tall wet forest and woodland. Also partially cleared agricultural land.	**Low**	Limited suitable habitat.
Hieraaetus morphnoides	Little Eagle		v	1999		Woodland and open areas. Rabbits are a key component of their diet. Nesting occurs in mature trees in open woodland or riparian vegetation.	**Low**	Limited suitable habitat.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Ninox strenua	Powerful Owl		v	1998		Eucalypt forests and woodlands, well-treed urban areas.	**Medium**	May be present in forests surrounding the study area, however limited suitable habitat within the study area due to previous disturbances (i.e. clearing)
Tyto tenebricosa	Sooty Owl		e	1996		Tall, wet eucalypt forest and rainforest.	**Low**	May be present in forests surrounding the study area, however limited suitable habitat within the study area due to previous disturbances (i.e. clearing)
Actitis hypoleucos	Common Sandpiper		v		PMST	Migrates to Australia from Eurasia in August where it inhabits a wide variety of coastal and inland wetlands with muddy margins before departing north in March.	**Low**	Limited suitable habitat.
Ornithorhynchus anatinus	Platypus		v	2021		A variety of freshwater waterbodies, particularly those with stable banks suitable for burrows, and shallow waters for foraging.	**Medium**	Recorded up and downstream of the study area, suitable habitat present.

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Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Eulamprus kosciuskoi	Alpine Water Skink		e	2005		Alpine sphagnum bogs, wet alpine heathlands and alpine creeks and streams.	**Low**	Limited suitable habitat.
Pseudemoia pagenstecheri	Tussock Skink		e	2019		On the ground in a range of grasslands or sparse grassy woodlands from alps to coast.	**Medium**	Suitable habitat present, recent records within the search area.
Austroaeschna (Austroaeschna) flavomaculata	Alpine Darner Dragonfly		v	2002		Mountain streams, alpine trickles, and run-off waters, occurring in sphagnum and under rocks in alpine regions of Victoria and NSW	**Low**	Limited suitable habitat.
Riekoperla intermedia	Stonefly		v	1984		Slow flowing stream habitats in the Falls Creek, Mount Feathertop and Mount Bogong area, Victoria.	**Low**	Species usually occurs at higher altitudes
Euastacus yanga	Variable Spiny Crayfish		e	1998		Large and small flowing, cool-water streams in pasture and sclerophyll forest.	**Medium**	Recorded downstream of the study area.
Euastacus armatus	Murray Spiny Crayfish		t	2018		Large and small flowing, cool-water streams in pasture and sclerophyll forest.	**Medium**	Recorded downstream of the study area.

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Appendix 6 – Heritage due diligence

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Clover Power Station Modernisation Project: Cultural Heritage Due Diligence

FINAL REPORT

Prepared for AGL Hydro Partnership Pty Ltd

31 July 2024

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We pay our respects to the Traditional Custodians and Elders past and present and honour their connection to Country and ongoing contribution to society.

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1 Introduction

1.1 Background

Biosis Pty Ltd has been engaged by AGL Hydro Partnership Pty Ltd (AGL) to complete a desktop cultural heritage (Aboriginal and historical) due diligence assessment of land at Bogong High Plains Road, Bogong within the Alpine Shire (study areas) (Map 1).

AGL is seeking to undertake the following works within the study areas (the 'proposed works'):

- Modification of the concrete tail bay within Clover Dam.
- Creation of a hardstand area as part of access requirements for the tail bay works.

This report outlines ecological constraints across the study areas and the implications under relevant Commonwealth and State legislation and policy.

1.2 Scope of the assessment

This assessment includes the following scope of works:

- Undertake background research with a search of the following sources for each study area.
  - Victorian Aboriginal Heritage Register.
  - Victorian Heritage Inventory and Victorian Heritage Register.
  - National Heritage List and Commonwealth Heritage List.
  - Local Council Heritage Overlays and/or Planning Schemes.
  - Aerial imagery where available.
  - Historic map sources such as Parish survey plans.
  - State Library of Victoria.
  - Public Records Office of Victoria.
- Assess the study areas for landscape features that are likely to indicate presence of Aboriginal and/or historic cultural heritage.
- Map all previously recorded Aboriginal and historic places within the study areas if present, as well as areas of designated Aboriginal cultural heritage sensitivity.
- Examine, collate and analyse any previously undertaken heritage or archaeological studies that encompass the study areas.
- Examine, collate and analyse the environmental background and land use history of the study areas.

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2 Project description

2.1 Project location

The study areas are located adjacent to Clover Dam on the Bogong High Plains Road, within the Alpine Shire municipality (Map 2). The study areas have been significantly disturbed by historical development. Land surrounding the study areas is managed by Parks Victoria and remains undeveloped, primarily used for public conservation.

2.2 Proposed works

Details of proposed work within each study area are shown in Table 1. The location and extent of the study area are shown in Map 1 and Map 2.

Table 1 Proposed works within the study areas

Study Area	Description
Surfacing a hardstand area including parking and secure storage area	This section is adjacent to the Clover Power Station. Its purpose is for access requirements associated with the tail bay works and storage and laydown for the Clover Power Station. All works will involve the building up of parts of the study area and no excavation or other ground disturbing works are proposed.
Clover Tail Bay 2	Works will occur adjacent to the tail bay at the southern side as part of the Clover Power Station's refurbishments. This work will extend and increase the height of the tail bay to maintain suitable tailwater levels and allow for it to function more efficiently with the ongoing upgrades. In stream excavation maybe required to divert water around the work site

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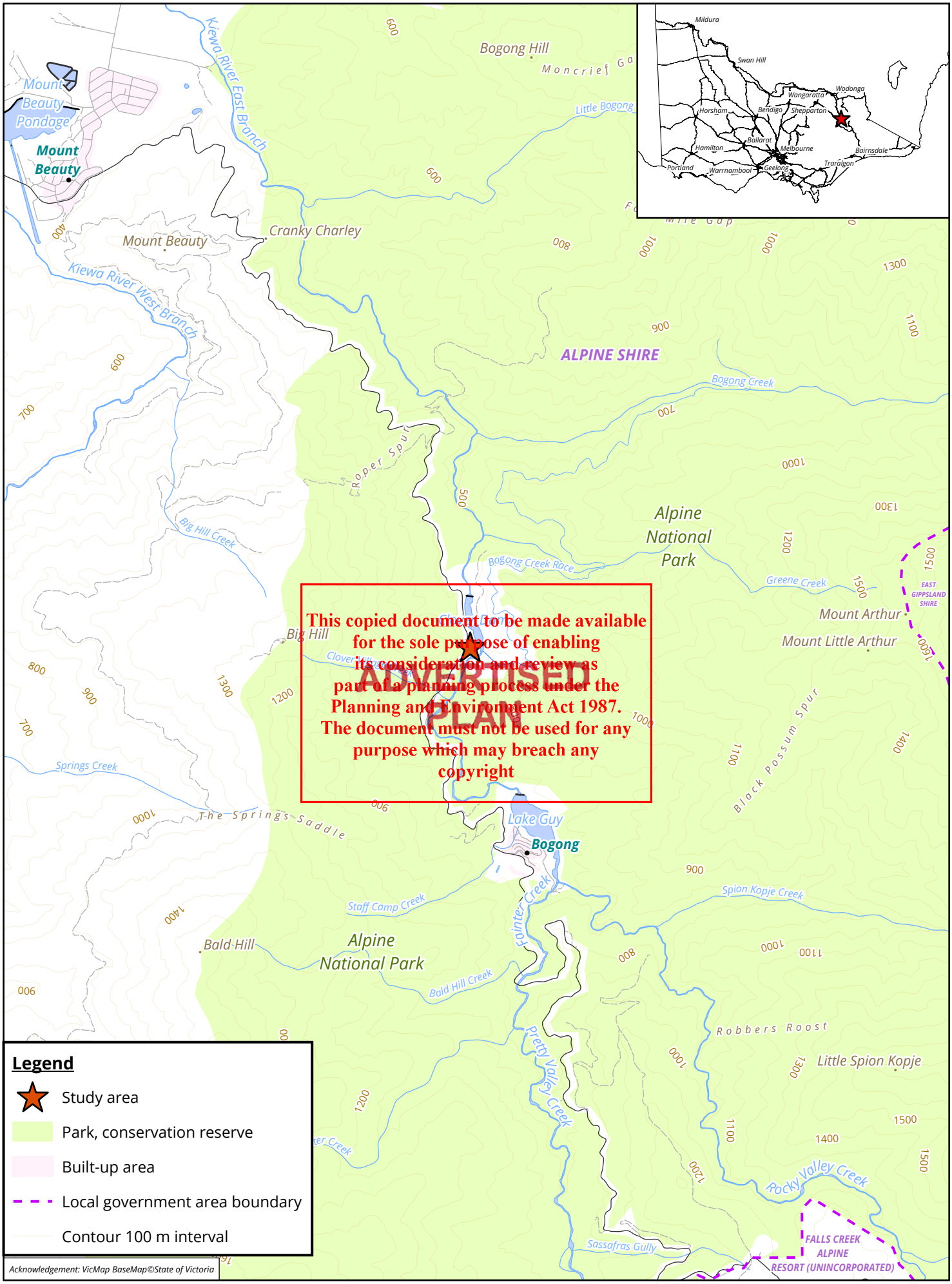

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Legend

- Study area
- Park, conservation reserve
- Built-up area
- Local government area boundary
- Contour 100 m interval

Acknowledgement: VicMap BaseMap©State of Victoria

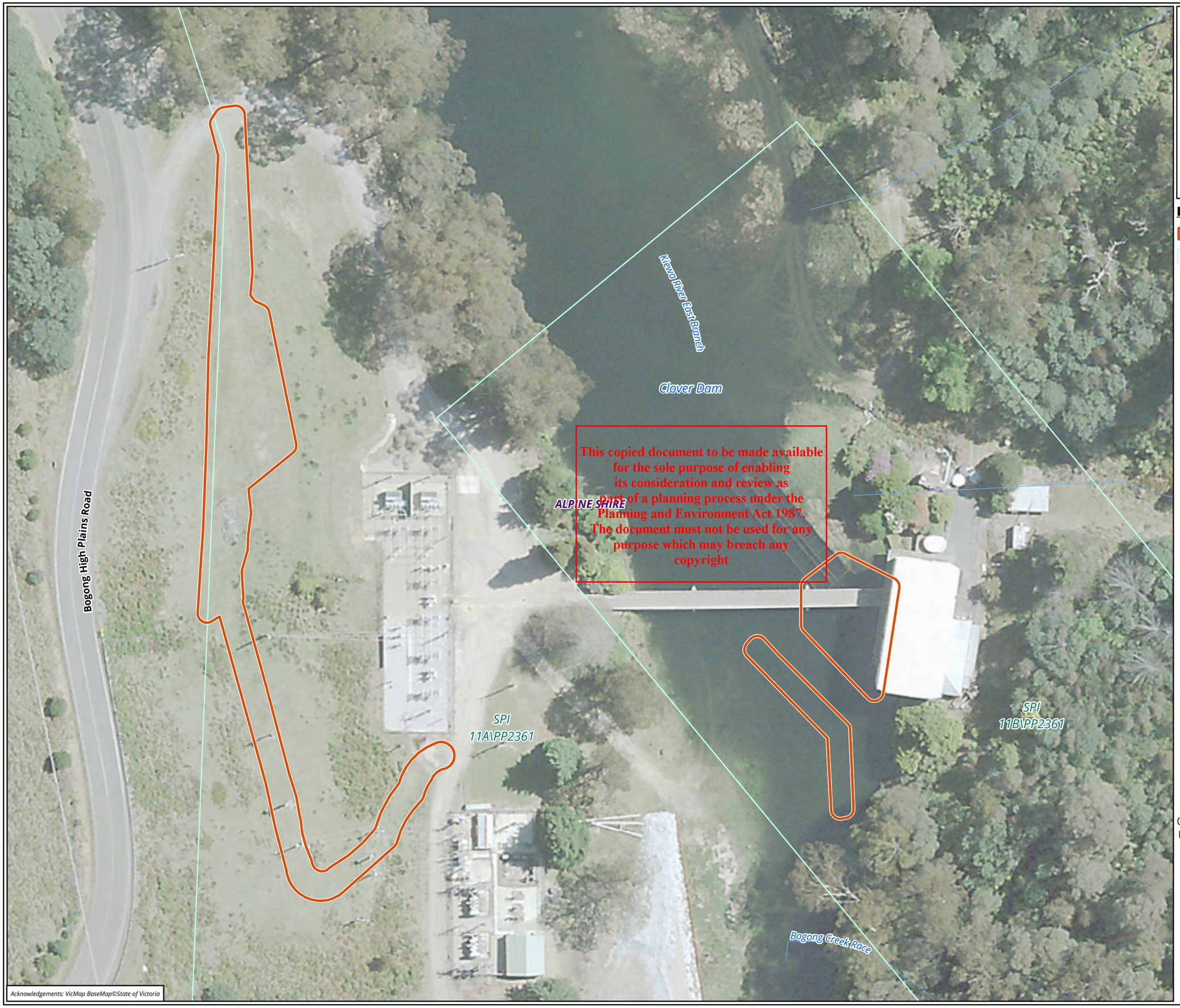
Figure 1 Location of the study area, Bogong, Victoria

0 0.5 1 1.5 2
Kilometres

Scale: 1:50,000 @ A4
Coordinate System GDA2020 MGA Zone 55

N

Matter: 41089,
Date: 30 July 2024,
Prepared for: JEH, Prepared by: SP, Last edited by: spanter
Layout: 41089_Station_Eco_F1_Location
Project: P:\41000s\41089\Mapping\41089_Clover_Power_Station_planning.aprx



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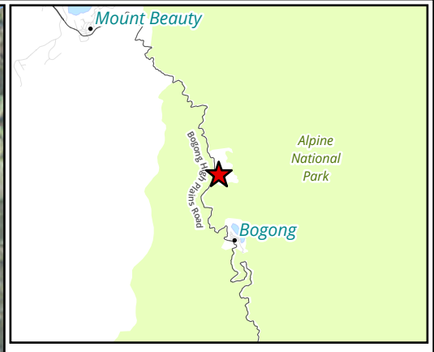

Legend

- Study area
- Current parcel boundary

ADVERTISED PLAN

Figure 2 Extent of the study area

0 10 20 30 40 N

Metres

Scale: 1:750 @ A3

Coordinate System: GDA2020 MGA Zone 55

biosis APEM Group

Matter: 41089,
Date: 30 July 2024 ,
Prepared for: JEH, Prepared by: SP, Last edited by: spanter
Layout: 41089_Station_Eco_F2_Extent
Project: P:\41000s\41089\Mapping\
41089_Clover_Power_Station_planning.aprx

Acknowledgements: VicMap BaseMap©State of Victoria

3 Cultural Heritage Advice

3.1 Background review

The following section contains the result of the geographic and land use background review. This has been performed to provide an understanding of the context of the study area in terms of its geology, geomorphology and impacts to the land that have occurred from historic land use.

3.1.1 Geology and landforms

The study areas are situated within the Alpine National Park and within the Northern Fall Bioregion in the Highlands. The geology of the region where the study area is located includes various formations, such as East Kiewa Granodiorite, Omeo Metamorphic migmatite and Cobungra Granite (Department of Energy, Environment and Climate Action 2023). In eastern Victoria, tectonism (volcanic activity) caused regional facies change, uplift, and local deformation, at about the Ordovician–Silurian boundary at 440 Ma. During continuing deformation, Llandovery rocks (older) were folded and faulted together with Ordovician rocks (newer) at about 430 Ma and the Omeo Metamorphic Complex was generated (*Victoria's Geology*, 2021).

The study area is situated within the Eastern Uplands (EU) geomorphological unit, more specifically *GMU 1.4.4 Deeply dissected ridge and valley landscapes (headwaters of major rivers such as the Wonnangatta, King and Kiewa Rivers, Mt Coopracambra)* (Agriculture Victoria 2020). This geomorphological unit comprises high ridges that have formed from the divides of major streams, with slopes extending down towards these major waterways. Due to the steep gradient of some sections of the highlands, there is little to no accumulation of sediment along the stream margins (Agriculture Victoria 2020).

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Soils within the study area typically consist of red and brown gradational soils on the slopes contrasting with poorly structured gradational soils on the drier slopes. The soils along the stream margins are alluvial. The steeper slopes have shallow soils which typically have an abundance of stones (Agriculture Victoria 2020).

The closest water source to the study area is the Kiewa River and numerous smaller drainage lines and creeks that fall from the valley towards the Kiewa River (Agriculture Victoria 2020).

3.1.2 Historical land use

The historical land use of the study area is related to the construction of the Kiewa Hydro Scheme. This scheme dramatically changed the region with the construction of the Kiewa scheme for the generation of hydroelectric power, but also the towns, major roads and public infrastructure such as hospitals constructed for the workers and families (Lawrence 2008).

The scheme was first proposed in 1911 (Lawrence 2008), however, construction of the scheme did not commence until 1937. It suffered delays and a reduction of the scope from the original plans due to a recession and resources being limited due to the Second World War (Kiewa catchment 2023).

Work was resumed in the mid-late 1940s after the end of the Second World War, with large numbers of migrant workers taking advantage of employment opportunities offered by the scheme (Lawrence 2008). Large worker camps including Mt Beauty and Bogong Village were constructed during this time, as well as many smaller workers' camps. At its peak, 4000 people were working on the scheme (Museum and History, 2022).

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The scheme was completed and commissioned in 1960, though the final system was smaller than what had originally been planned. The final version consisted of four power stations (Lawrence 2008), five aqueducts and five dams which are all still in operation today (Kiewa catchment 2023). The scheme was privatised in the 1990s and was acquired by Southern Hydro during this period. It was then purchased by AGL energy in 2005 who currently retains ownership (Museum and History 2022).

Information provided by AGL (client)

Prior to conducting the site inspection, Biosis received information from AGL in relation to two historic workers camps that would be potentially impacted by the proposed works: one immediately to the west of the Clover Dam Power Station and one approximately 600 metres to the north of the Clover Dam. A small weir was also identified as being in the vicinity of potential works. For the purposes of this report, the camp near the power station has been entitled Clover Dam Camp (South) and the one 600 metres to the north has been entitled Clover Dam Camp (North).

The area of Clover Dam Camp (North) and the weir area were subsequently removed from this study and have been addressed in separate reports.

Review of historical photographs and aerial images

A review of the available photographs taken during the construction of the Clover Dam Power Station and associated worker camp (Clover Dam Camp South) from the 1940s has been undertaken to better understand the historical land use.

Figure 1 and Figure 2 show early stages of the power station construction, with the piles for the existing bridge being in place but the bridge decking not yet laid. These images also show a temporary bridge that would have provided access for workers and material to the power station site, which lies on the opposite side of the river to the worker accommodation.

Figure 3 was taken from an elevated point to the east of the location of the power station looking west towards the construction site and worker's accommodation (location of hardstand area with proposed resurfacing). Progress on the bridge can be seen with scaffolding around the bridge piles and piers. Scaffolding and framework for the power station can also be seen in the foreground.

Figure 4 and Figure 5 show the power station almost complete, with the scaffolding and access track still visible. Figure 6 is a photograph taken from approximately the same location as Figure 3 and shows a view of what appears to be a completed Clover Dam Power Station with the temporary bridge removed and the riverbank landscaped. The workers' accommodation area has been expanded and the tents seen in Figure 3 no longer present.

Figure 7 shows works on the tunnel and although does not include the study area has been included to show the use of machinery for excavation works. Given the scale of the work involved, mechanical excavation supported by manual excavation would have been a likely in most parts of the scheme.

The aerial images presented are from 1945 (Figure 8) and 1976 (Figure 9). While neither area of sufficient quality to gain much detail, there is obvious tree clearance in the study are in 1945 and likely ground disturbance also. The 1976 image shows a time where the power station would have been operational for some 30 years and the infrastructure seen in the photograph in Figure 15 can be seen.

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Figure 1 **Construction of Clover Dam Power Station bridge, with the power station site to the right of the photograph and the piles for the bridge under construction (Photographs - SECV - Clover Power Station, 1940s)**

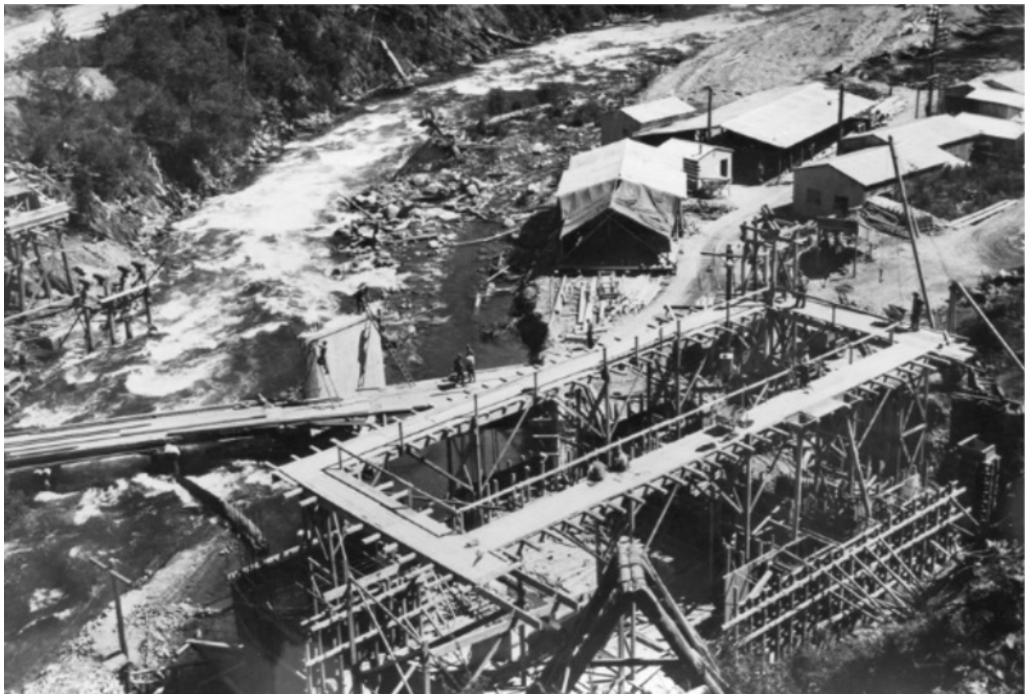

Figure 2 **Construction of Clover Dam Power Station and bridge, with the power station site to in the foreground and the piles for the bridge under construction (Photographs - SECV - Clover Power Station, 1940s)**

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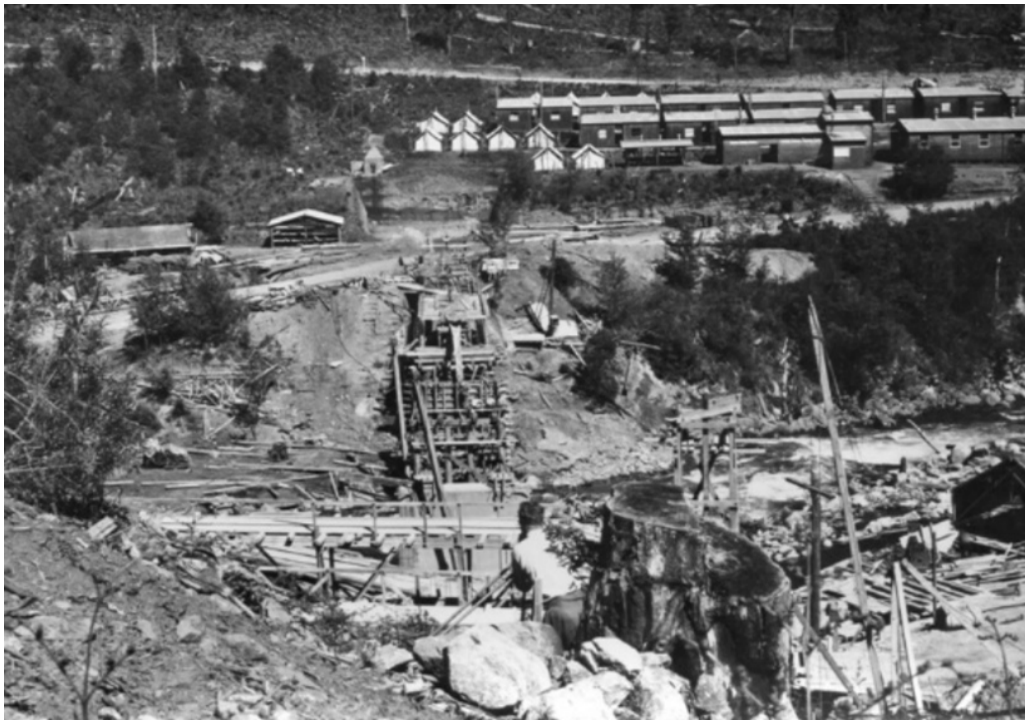

Figure 3 Construction of Clover Power Station from the early 1940s facing west and overlooking worker accommodation (Photographs - SECV - Clover Power Station, 1940s)

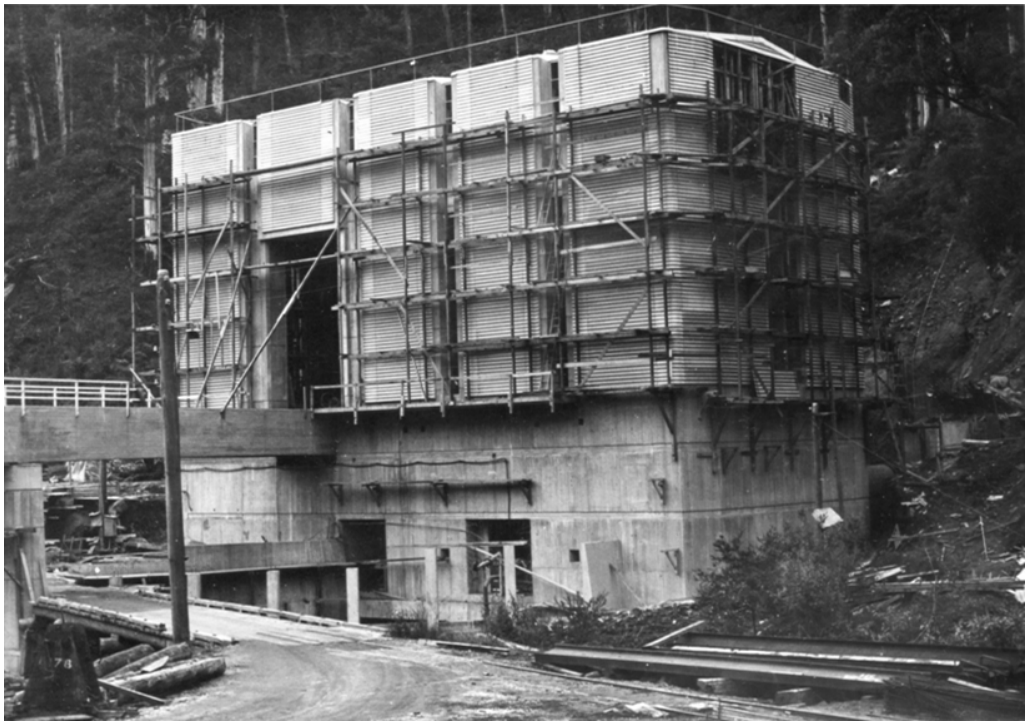

Figure 4 Clover Dam Power Station nearing completion, with the tail-bay location at the bottom of the photograph (Photographs - SECV - Clover Power Station, 1940s)

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Figure 5 Clover Dam Power Station nearing completion, with the tail-bay location at the bottom of the photograph (Photographs - SECV - Clover Power Station, 1940s)

Figure 6 Workers' camp location with the electrical infrastructure installed (Photographs - SECV - Clover Power Station, 1940s)

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Figure 7 **Image of combined manual and mechanical excavation occurring during the Kiewa Hydro Scheme construction (Photographs - SECV - Clover Power Station, 1940s)**

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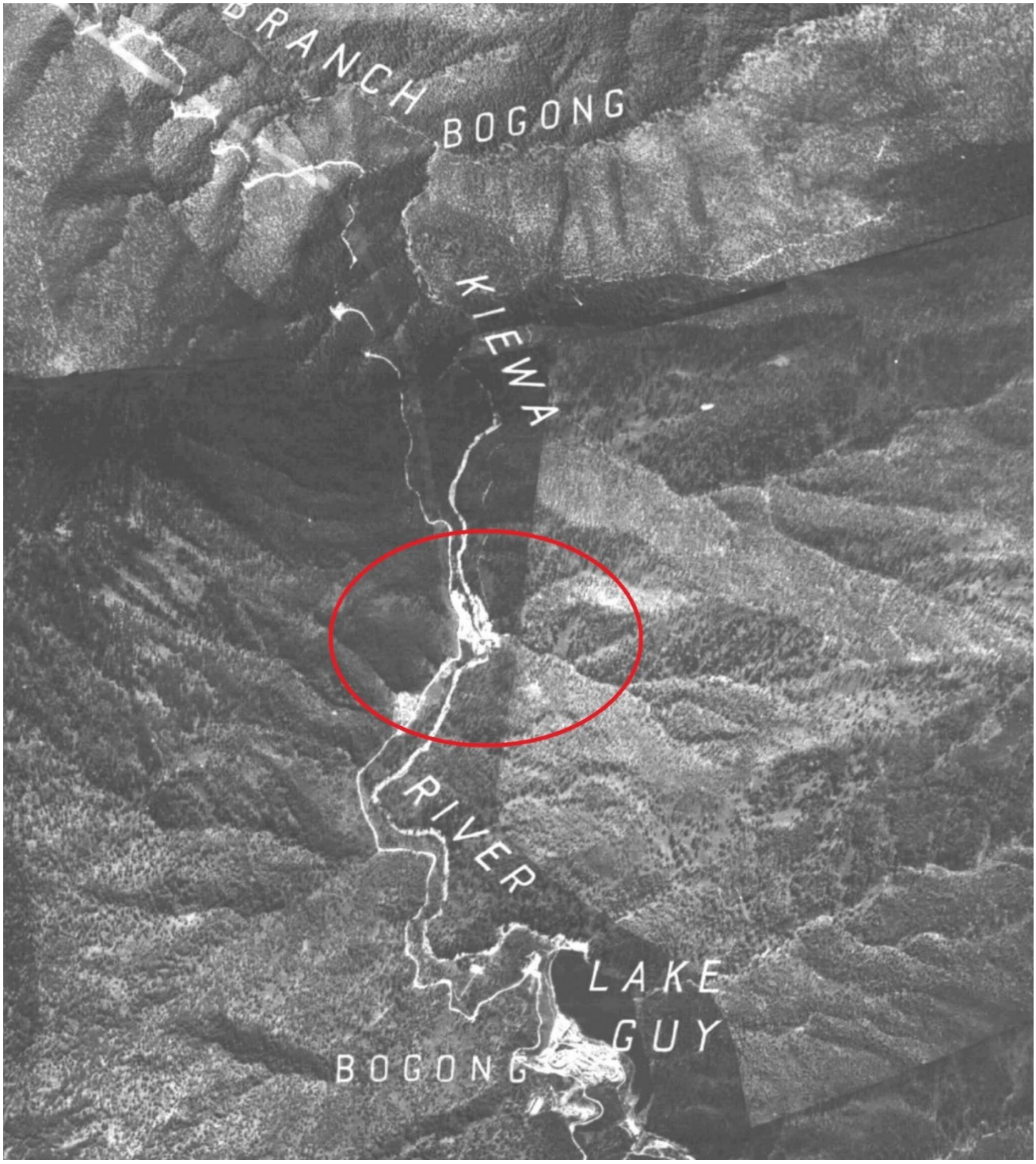

Figure 8 **1945 aerial image with the general location of the Clover Dam Power Station study area circled in red. Note what appears to be tree clearance on both sides of the Kiewa River at both the study area location and Bogong Village where similar works and worker accommodations were undertaken (RAAF 1945)**

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Figure 9 **Aerial imagery of Clover Dam with the approximate study areas highlighted in red (Department of Land 1976)**

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3.2 Aboriginal heritage

The Victorian Aboriginal Heritage Register (VAHR) was accessed by Daniel Carpenter of Biosis Pty Ltd on 10 July 2024, under approved access number 13060. A search radius of 6 kilometres surrounding the study area was used.

3.2.1 Aboriginal places in the search radius

There are nine previously registered Aboriginal places, with 63 components, within the search radius (see Table 2). The most commonly registered Aboriginal place type within this radius are artefact scatters (n=6) with lower occurrences of low density artefact distributions (LDADs) (n=2). An LDAD is a registration of stone artefacts at densities of up to ten counted artefacts in an area of approximately 10x10 metres including within a single test pit of ≤1m².

There is one registered object collection within the search radius located at the Kiewa Historical Society as part of an exhibition.

There are no Aboriginal places located in, or within 200 metres of the study area. The closest Aboriginal place to any of the study areas is VAHR 8324-0180 (Fainter Creek Upper 1), located approximately 4.4 kilometres to the southeast. Most of the registered places are located in the township of Mount Beauty, which has been subject to an archaeological assessment under CHMP 15407. This resulted the identification of Aboriginal material in subsurface contexts.

Aboriginal places within the search radius are summarised in Table 2 and detailed in Table 3.

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Table 2 Summary of Aboriginal Place components within the 6 kilometre radius

Component Type	Frequency (No.)	Frequency Percentage (%)
Artefact Scatter	6	10%
Low Density Artefact Distribution (LDAD)	56	88%
Object Collection	1	2%
Total	63	100%

Table 3 Details of Registered Aboriginal Places within the 6-kilometre search radius

VAHR Place	Place Type	Place Details	Distance from the study area (m)
VAHR 8324-0180 (FAINTER CREEK UPPER 1)	1 - Artefact Scatter	Artefact scatter situated on a track likely not located in situ. The artefact was probably located on the spur and washed down onto the track. The place is situated on a mountain, on the steep upper slope surrounded by native vegetation. Artefacts included one rhyolite ground edge axe and two quartz flakes all located in a surface context.	4.4 km southeast
VAHR 8324-0208 (Tawonga South AS 5)	1 - Artefact Scatter	A total of 15 stone artefacts manufactured from quartz all identified in a subsurface context during the Complex Assessment for CHMP 15047. Artefacts were located in red-brown clayey loams between depths of 200	5.5km northwest

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VAHR Place	Place Type	Place Details	Distance from the study area (m)
		to 250mm. Artefacts were located on hill slopes and mid and upper terraces.	
VAHR 8324-0206 (Tawonga South AS 3)	1 - Artefact Scatter	A total of 66 stone artefacts manufactured from quartz identified in subsurface contexts during the Complex Assessment for CHMP 15047. Artefacts were identified in a dark reddish brown clay-loam deposit. Artefacts were typically identified between 100-400mm depth. Artefacts were located on hill slopes and mid and upper terraces.	5.6km northwest
VAHR 8324-0207 (Tawonga South AS 4)	1 - Artefact Scatter	A total of 64 artefacts were identified manufactured from quartz in subsurface contexts during the Complex Assessment. Artefacts were identified dark red-brown loam deposit at depths of 250mm. Artefacts were located on hill slopes and mid and upper terraces.	5.7km
VAHR 8324-0204 (Tawonga South AS 1)	1 - Artefact Scatter	Seventy one artefacts were identified during CHMP 15047. All artefacts were manufactured from quartz. Artefacts were all located in a subsurface context within one shovel test pit. The artefacts were located in a light brown sandy-loam deposits between depths of 200-250 mm. Artefacts were located on hill slopes and mid and upper terraces.	5.0 km northwest
VAHR 8324-0209 (Tawonga South LDAD)	1 – LDAD	Fifty three stone artefacts were identified during the Complex Assessment for CHMP 15047. All artefacts were identified within subsurface contexts. Soil deposits where artefacts were identified were red-brown clayey loams or light brown sandy-loams between depths of 50-300mm. Artefacts were located on hill slopes and mid and upper terraces.	5.1km northwest
VAHR 8324-0205 (Tawonga South AS 2)	1 - Artefact Scatter	A total of ten stone artefacts all manufactured from quartz were identified during the Complex Assessment for CHMP 15047. All artefacts were identified in a subsurface context. Artefacts were identified in dark reddish-brown clay-loam at 350mm depth. Artefacts were located on hill slopes and mid and upper terraces.	5.2km northwest
VAHR 8324-0211 (Moncreif Gap Tk LDAD 1)	1 - LDAD	Three quartz artefacts were identified in surface contexts. This included one angular fragment and two flakes. Artefacts were identified on Mount Beauty. No information regarding the landform was provided.	6.3 km north

3.2.2 Previous work in the search radius

A search of the VAHR identified 16 archaeological assessments that have taken place within the search radius. The most common report type is Desktop or Due Diligence or Other and Surveys (n=6), followed by CHMP Standard Assessments (n=2) and CHMP Complex Assessment (n=1) and heritage management plans (n=1). Selected CHMP assessment on similar elevated landforms were deemed most pertinent to the study area and have been summarised below.

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Table 4 Archaeological Assessment Types within a 6-kilometre radius of the study area

Assessment Type	Frequency (no.)	Percentage
CHMP Complex Assessment	1	6.25%
CHMP Standard Assessment	2	12.5%
Desktop or Paper or Due Diligence or Other	6	37.5%
Survey	6	37.5%
Heritage Management	1	6.25%
Total	**16**	**100.00%**

CHMP assessments

Rhodes (2007) prepared a Standard-level CHMP (10122) for a section of proposed water pipeline approximately 200 metres in length near the Kiewa River. The Activity Area was located 5.8 kilometres northwest of the current study area. The Standard Assessment involved a pedestrian survey of the Activity Area. There were inaccessible areas due to the Kiewa River and overgrown vegetation. Some ground disturbance was noted due to the soil cuts and deep excavation ad grading for the existing pipeline. There was no Aboriginal cultural material located during the Standard Assessment. Ground surface visibility throughout the Standard Assessment was typically poor.

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The Standard Assessment concluded that due to the location of the Activity Area in a wetland, it would have proven unsuitable for Aboriginal occupation. The Standard Assessment concluded that there was low potential of finding Aboriginal cultural heritage during the excavation of the water pipeline and the CHMP did not progress to a Complex Assessment.

Bell (2014) prepared a CHMP to a Standard-level (12897) for AGL Energy approximately 50 metres east of the current study area. The Desktop Assessment noted the disturbance that had occurred at both site locations due to the construction of Junction Dam and Clover Dam. The Standard Assessment involved a systematic survey of the Activity Area on foot. Significant amounts of ground disturbance were noted in the Junction Dam section of the study area, due to impacts of the dam construction.

No areas of archaeological potential were identified as a result of the Standard Assessment, and no Aboriginal cultural heritage was identified. Consultation was conducted and it was agreed that due to the impacts of the construction of the dams at both sites, it was agreed that no areas were likely to contain Aboriginal cultural heritage and therefore, the CHMP did not proceed to a Complex Assessment due to the low potential for Aboriginal cultural heritage. Standard management conditions were the requirement of this CHMP.

Wall and Light (2021) prepared a complex CHMP (15047) for the residential subdivision at Tawonga South, approximately 5.5 kilometres northwest of the current study area. The Standard Assessment involved a systematic pedestrian survey of the Activity Area. The Standard Assessment indicated that the Activity Area had been subject to varying degrees of disturbance including vegetation removal, construction of dams and tracks and installation of pipelines and other infrastructure. It was decided that slopes with an elevation level above 375 metres were unlikely to have been occupied due to being slippery and wet with poor opportunity for foraging.

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No Aboriginal cultural heritage was identified during the Standard Assessment. The Activity Area was recorded to be an undulating landform, sloping down from the south to the Kiewa River West Branch. The Complex Assessment involved the excavation of two 1x1 metre Test Pits and 44 50x50 centimetre shovel test pits with additional radial shovel test pits where pits were positive for Aboriginal cultural heritage. A total of 279 stone artefacts were identified as a result of the Complex Assessment. Artefacts were identified between 50-400 millimetre in depth in brown, red or yellowish loams. The majority of artefacts were identified between 200-250 millimetres.

A total of six Aboriginal places were registered as a result of the Complex Assessment, including VAHR 832-0204 (Tawonga South AS 1), VAHR 8324-0205 (Tawonga South AS 2), VAHR 8324-0206 (Tawonga South AS 3), VAHR 8324-0207 (Tawonga South AS 4), VAHR 8324-0208 (Tawonga South AS 5) and VAHR 8234-0209 (Tawonga South LDAD).

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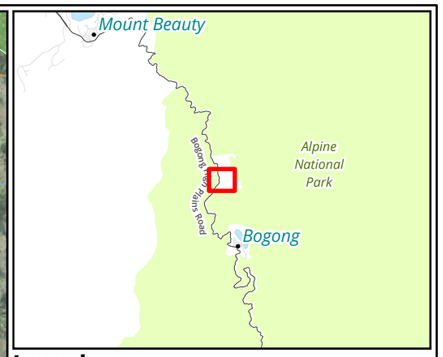

Legend

- Study area
- Area of Aboriginal cultural heritage sensitivity
- Current parcel boundary

Hydrology

- Watercourse
- Dam

Elevation

- Contour 20 m interval

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Map 3 Areas of cultural heritage sensitivity

0 20 40 60 80 100

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA2020 MGA Zone 55

N

biosis

Matter: 40073,
Date: 25 July 2024 ,
Prepared for: DRC, Prepared by: SP, Last edited by: spanter
Layout: 40073_Station_Her_F3_CHS
Project: P:\40000s\40073\Mapping\40073_ECO_CH_DD_Clover.aprx

Acknowledgements: VicMap BaseMap©State of Victoria

3.2.3 Conclusions from Aboriginal heritage research and predictive statement

The background review has identified that there are very few registered Aboriginal places or archaeological reports in the search radius. The low number of reports is likely due to the lack of recent development that would have triggered such studies. As these studies can be the primary manner which Aboriginal places come to be registered, the lack of Aboriginal places in the vicinity is likely a representation of the low number of studies and does not by itself indicate a low potential for Aboriginal places to be present.

A high level of ground disturbance is likely from Kiewa Hydro Scheme, with massive earth works undertaken over a number of decades for the dams, tunnels and power stations. The works also included the construction of roads, camps and villages and other infrastructure that has altered the landscape. This disturbance is confirmed by the two CHMPs conducted near the Kiewa River (CHMPs 10122 and 12897) which concluded at Standard Assessment level in part due to the levels of disturbance.

Given the extreme weather conditions during winter, it is likely that the area was only seasonally used by Aboriginal people. Typically, ridgelines would have been used for transit routes minimising the amount of exertion required when travelling long distances. The steep slopes in the vicinity of the study area generally make for poor place preservation, with artefacts being pushed down the slopes by natural forces, such as with VAHR 8324-0180 (Fainter Creek Upper 1) which was identified on a slope but noted to have come from a spur further up the hill.

Based on the available information, such as the seasonal accessibility of the area, high levels of disturbance, and poor potential for place preservation, there is low potential for in situ Aboriginal cultural heritage to be present within the study area. If any is present, it is likely to be lithics in low densities in disturbed contexts.

3.3 Historical heritage

A search of the following historic heritage registers, using a 5-kilometre radius, was undertaken by Daniel Carpenter, Biosis Pty Ltd, on 20 May 2024.

- Victorian Heritage Register (VHR)
- Victorian Heritage Inventory (VHI)
- Alpine Shire Heritage Overlay (HO)

No registered heritage places are present within the search area.

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3.3.1 Previous heritage studies and archaeological investigations

A review was conducted of the Alpine Shire Heritage Study (Alpine Shire Council Heritage Study Place Citations, 2007). This study does not note anything specifically in the study area; however, it does recommend the Clover Arboretum for inclusion on the Alpine Shire Heritage Overlay. The Clover Arboretum is located along the Bogong-High Plains Road approximately 500 metres to the south-west of Clover Dam Power Station. Prior to its development as an arboretum in the 1970 until the 1980s, it had been a workers' camp for the construction of Keiwa Hydro Scheme, similar to the one immediately adjacent to the Clover Dam Power Station. The families who lived there were migrants from many parts of the world and planted a variety of trees and constructed stone walls. The camp was closed in the 1950s, but the trees and walls remain.

The Heritage Victoria database HERMES notes this place as being on the Alpine Shire Heritage Overlay (HO89), however this does not appear on either the Alpine Shire Planning Scheme or VicPlan. It is unclear if a decision has been made not to list this as a HO, or if this is an oversight. Despite the official registration being somewhat unclear, the statement of significance notes from the heritage study highlights the significance of

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the workers camps. The National Heritage List criteria was applied to assess the significance of the Clover Arboretum, the results of which would be similar if applied to the workers camps. This highlights the importance of the camp site, the people who lived there and the potential for the site to yield information about the people who lived there. The relevant criteria are listed in Table 5.

Table 5 Relevant sections of application of the National Heritage List criteria for the Clover Arboretum (Alpine Shire Council Heritage Study Place Citations, 2007)

Criteria	Response
Criterion A - Its importance in the course, or pattern, of Australia's natural or cultural history	Site is associated with the development of the Kiewa Hydro Electric Scheme, one of Victoria's largest infrastructure projects of the era, and one which played a significant role in the conversion of the upper Kiewa Valley from a lightly settled pastoral base to a large vibrant community with a diverse economic base, between the late 1930s and early 1960s.
Criterion B - Its possession of uncommon, rare or endangered aspects of Australia's natural or cultural history	Site has importance in demonstrating living conditions experienced by construction workers and their families in major government infrastructure projects of the era, in remote mountain areas.
Criterion C - Its potential to yield information that will contribute to an understanding of Australia's natural or cultural history	Site has archaeological potential to yield information about the lifestyles of diverse migrant groups thrown together in construction camps for major infrastructure projects

3.3.2 Conclusions of historical heritage research

The background review of the historical heritage has built on information gathered during the historical land use review, confirming that workers' camps were present within the study area. It has further shown that these places are deemed to be of cultural and archaeological significance due to their association with the development of the Kiewa Hydro Scheme and the people associated with its construction.

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3.4 Study area inspection

3.4.1 Methodology

As per Section 126A of the *Heritage Act 2017*, a notice to conduct a survey was submitted through Heritage Victoria's Heritage Desk platform on 12 February 2024. The study area was inspected by Daniel Carpenter of Biosis Pty Ltd, on 14 February 2024. This was conducted in tandem with an ecology assessment conducted by Georgina Zacks of Biosis Pty Ltd. Also present was Amanda Clarke of AGL (client's representative).

The purpose of the survey was to identify any historical features that may be present and provide advice on management of these under the *Heritage Act 2017*. It was also to assess the level of disturbance in each of the study areas.

The study areas were surveyed on foot, with a focus on the landforms and benched areas. Photographs of the location were taken on a Samsung S21 FE 5G Smartphone, spatial data was recorded with dGPS and field notes were taken.

3.4.2 Obstacles/Limitations

Dense vegetation was present throughout much of the study area; therefore, the survey was limited by poor ground surface visibility. The tail bay area was completely submerged, and therefore could not be effectively surveyed.

3.4.3 Results of site inspection

Hardstand Area

The proposed hardstand area is at the site of a workers' camp for the construction of the Clover Dam (noted as Clover Dam Camp (South) in Carpenter 2024). There are two tiers of benching between the Bogong High Plains Road and the power station, each approximately 1.5 metres high at the southern extent but converge to the same level at the access track to the north. The benches are overgrown with grass, obscuring the ground's surface. There is no evidence of erosion or further modification. Concrete steps lead from the lower benched area down to the level of the power plant. The location of these steps cannot be seen in the historical photographs, but it is likely from the era of the construction of the power station.

Images of the hardstand area can be found in Photograph 1 to Photograph 4.

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Photograph 1 Benched area of Clover Dam Camp (South) area, taken from the south of the camp area (facing north, D.Carpenter, 14 February 2024).

Photograph 2 Benched area of Clover Dam Camp (South) area, taken from the north of the camp area (facing south, D.Carpenter, 14 February 2024).

Photograph 3 Benched area of Clover Dam Camp (South) area, taken from the north of the camp area (facing south, D.Carpenter, 14 February 2024).

Photograph 4 Existing concrete steps leading down from the lower benched area to the level of the power station (facing west, D.Carpenter, 14 February 2024).

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Photograph 5 Benched area of Clover Dam Camp (South) area, taken from the east of the camp area near the power station with existing electricity infrastructure in the foreground (facing west, D.Carpenter, 14 February 2024).

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Clover Tail Bay upgrades

Most of the tail bay upgrade location is underwater, however, an inspection was carried out and the area was photographed (see Photograph 6 to Photograph 9). Existing structures from the Kiewa Hydro Scheme are present, with the Clover Dam Power Station on the east bank of the Kiewa River and the bridge constructed in the 1940s providing access from the west bank. Associated substations and other electricity infrastructure is present in the vicinity. No evidence of the temporary access bridge that was noted in the background review was observed.

Photograph 6 Clover Power Station taken from access bridge showing tail bay location (facing east, D. Carpenter, 14 February 2024).

Photograph 7 Clover Power Station taken from west bank of Kiewa River showing tail bay location (facing north-east, D. Carpenter, 14 February 2024).

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Photograph 8 Clover Power Station taken from west bank of Kiewa River showing tail bay location (facing north, D. Carpenter, 14 February 2024).

Photograph 9 Clover Power Station taken from access bridge showing tail bay location (facing - south-east, D. Carpenter, 14 February 2024).

3.5 Discussion

The site inspection confirmed the land and waterway modification, and the presence of historic features noted in the background review. All landforms within the study areas had been subject to some form of modification.

The tail bay area had been subject to works during the construction of the power station in the 1940s with an access bridge constructed at this location. This was shown to have been removed by the time the station was operational and no evidence of its presence was found during the site inspection. The site inspection for the tail bay area was limited as the majority of this area was underwater and therefore could not be observed.

The hardstand area was historically used for workers' accommodation changing from tents to more permanent structures over time, possibly surviving into the 1970s. The site inspection showed that the landform had been significantly altered and benched; likely by mechanical means, to provide three foundational tiers for the structures. This benching appears to be intact and unchanged since the 1940s, with some remnants of structures visible. It is therefore likely that there are additional historical features or deposits in subsurface contexts.

The research in relation to Aboriginal cultural heritage concluded that the study area was of low potential for the presence of Aboriginal cultural heritage, due to the seasonally inaccessible nature of the study area, the poor potential for place preservation and the levels of disturbance that had occurred.

No Traditional Owner consultation was undertaken as part of this study. Despite the low potential noted in this report for any Aboriginal places to be present within the study areas, the intangible significance that the study area has to Aboriginal people has not been assessed.

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3.6 Legislative obligations and recommendations

3.6.1 Aboriginal heritage

Under Section 46 of the *Aboriginal Heritage Act 2006*, a mandatory Cultural Heritage Management Plan (CHMP) is required if the regulations require the preparation of the plan for the activity. Under Regulation 7 of the Aboriginal Heritage Regulations 2018, a CHMP is required for an activity if:

a) All or part of the activity area for the activity is an area of cultural heritage sensitivity; and
b) All or part of the activity is a high impact activity.

It must be noted that when Significant Ground Disturbance (SGD), as defined in the Regulations (r.5), has occurred throughout the entirety or part of an area of cultural heritage sensitivity (CHS), then the area of CHS is no longer an area of CHS (see discussion of significant ground disturbance below) and the proposed works will not require a mandatory CHMP.

A review of the Aboriginal Heritage Regulations 2018 identified the following regulations relevant to the study area (Table 6 and Table 7).

Significant ground disturbance

A general discussion of significant ground disturbance is relevant for two reasons; firstly, under Regulations 46, 47, 50, 51, 54, 55 and 56, the activity must cause significant ground disturbance for it to be considered high impact; and secondly under Regulations 26-37 and 39-41 if part of the area of cultural heritage sensitivity has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.

Significance ground disturbance is defined as:

5 Definitions

...

significant ground disturbance means disturbance of—

a) the topsoil or surface rock layer of the ground; or

b) a waterway—

by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping.

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It is important to note that significant ground disturbance is not chiefly defined by the extent or depth of any disturbance, but rather by the mechanical means through which it has been caused. The application of the significant ground disturbance is also unaffected by the relative likelihood of archaeological material being preserved in the study area. Such likelihood of preservation may affect the advisability of a voluntary cultural heritage management plan but does not bear on the criteria for a mandatory cultural heritage management plan.

In order for an area of cultural heritage sensitivity to be no longer considered as such due to significant ground disturbance, the evidentiary hierarchy for determining significant ground disturbance determined in the Victorian Civil and Administrative Tribunal Decision (Mainstay Australia Pty Vs Mornington Peninsula SC & Ors, 145 2009) is applied.

These evidentiary hierarchy levels are:

- 1 – Common knowledge

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- 2 – Publicly available records
- 3 – Further information
- 4 – Expert advice or opinion

Further discussion of the influence of significant ground disturbance is discussed below.

Areas of cultural heritage sensitivity

Table 6 Areas of Cultural Heritage Sensitivity

Activity	Relevant Regulation	Area of CHS
Resurfacing Hardstand Area including parking and secure storage area.	r.26 Waterways 1. Subject to sub regulation (2), a waterway or land within 200 metres of a waterway is an area of cultural heritage sensitivity. 2. If part of a waterway or part of the land within 200 metres of a waterway has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.	The hardstand area is within an area of cultural heritage sensitivity as marked on the ACHRIS database, namely Kiewa River East Branch. The hardstand area has been subject to significant ground disturbance through benching for the worker accommodation in the 1940s. This is based on evidence hierarchy levels 2, 3 and 4. Based on the background research and site inspection undertaken by Daniel Carpenter of Biosis Pty Ltd, the entire hardstand area has been significantly altered. It would have been typical at the time (1940s) for this work to have been undertaken by mechanical means. Therefore, the area of cultural heritage sensitivity has been extinguished.
Clover Tail Bay upgrades	r.26 Waterways 1. Subject to sub regulation (2), a waterway or land within 200 metres of a waterway is an area of cultural heritage sensitivity. 2. If part of a waterway or part of the land within 200 metres of a waterway has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.	The tail bay upgrade location is within an area of cultural heritage sensitivity as marked on the ACHRIS database, namely Kiewa River East Branch. Although disturbance of this area can be assumed through the construction of the power station, it cannot be proved by any level of the evidence hierarchy. Therefore, these works will occur in an area of cultural heritage sensitivity.

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High impact activities

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Table 7 High Impact Activity

Activity	Relevant Regulation	High Impact Activity?
Hardstand Area including parking and secure storage area.	R. 46 Buildings and works for specified uses 1) The construction of a building or the construction or carrying out of works on land is a high impact activity if the construction of the building or the construction or carrying out of the works— a. would result in significant ground disturbance; and b. is for, or associated with, the use of the land for any one or more of the following purposes— ..... (iii) a car park:	Although this activity includes a carpark, the proposed works will not cause significant ground disturbance and therefore is not a high impact activity.
Clover Tail Bay 2	R. 46 Buildings and works for specified uses 2) The construction of a building or the construction or carrying out of works on land is a high impact activity if the construction of the building or the construction or carrying out of the works— a. would result in significant ground disturbance; and b. is for, or associated with, the use of the land for any one or more of the following purposes— (xxvii) a utility installation, other than a telecommunications facility, if— (D) the works affect an area exceeding 25 square metres. and (xxx) land used to generate electricity, including a wind energy facility 3) Despite subregulation (1), the construction of a building or the construction or carrying out of works on land is not a high impact activity if it is for, or associated with, a purpose listed under subregulation (1)(b) for which the land was being lawfully used immediately before 28 May 2007.	The proposed tail bay construction would be considered a high impact activity under Regulations 46(2)(b)(xxvii)(D) and 46(2)(b)(xxx), however, as the area has been lawfully used as a utility installation and land used to generate electricity since 1945, Regulation 46(3) applies, and it is not a high impact activity.

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Conclusions for a mandatory cultural heritage management plan

The proposed works do not meet the two-trigger threshold to prepare a mandatory CHMP. Therefore, a mandatory cultural heritage management plan is not required (see Table 8).

Table 8 Summary of conclusions for a mandatory CHMP

Activity	Area of cultural heritage sensitivity?	High impact activity?	Mandatory CHMP?
Hardstand Area and secure storage	No	No	**No**
Clover Tail Bay 2	**Yes**	No	**No**

Is a voluntary cultural heritage management plan advised?

Under Section 28 of the *Aboriginal Heritage Act 2006* doing an act likely to harm Aboriginal cultural heritage is unlawful. Therefore, regardless of the requirement to prepare a mandatory CHMP, an assessment of the study area must be made to determine the likelihood that Aboriginal cultural heritage may be present.

Under Section 29 of the *Aboriginal Heritage Act 2006* a person who does an act that harms or is likely to harm Aboriginal cultural heritage does not commit an offence if -

(a) the person is acting-
  (i) in accordance with a cultural heritage permit or approved cultural heritage management plan that applies to the Aboriginal cultural heritage
  ...

There is a provision under Section 45 of the *Aboriginal Heritage Act 2006* which allows for voluntary CHMPs to be prepared even if one is not required. A discussion of the advisability of a voluntary CHMP for each individual activity has been included in Table 9.

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Table 9 Advisability of voluntary CHMP

Activity	Advisable voluntary CHMP?
Hardstand Area and secure storage	The hardstand area has been shown to have been subject to high levels of disturbance that would qualify as 'significant ground disturbance' as defined under Regulation 5 of the Aboriginal Heritage Regulations 2018. The benching of the area as well as the construction and removal of structure would have disturbed or removed any Aboriginal material culture that may have been present prior to this. For this reason, a voluntary CHMP is not advised for the handstand resurfacing works
Clover Tail Bay 2	The tail bay upgrades will be undertaken largely underwater at a location that would have already had poor potential for place preservation. Disturbance of the land beneath is understood to have taken place through the construction of the Clover Power Station, though this has not been proven across the entire area. Therefore, given the demonstrated disturbance, a voluntary CHMP is not advised for the tail bay upgrade works.

Conclusions for a voluntary cultural heritage management plan

As there has been disturbance, ~~some of which could be considered 'significant~~ ground disturbance' in the study area as well as the low impact of the river crossing works, it is unlikely that any Aboriginal material culture will be disturbed by the proposed works. Therefore, a voluntary cultural heritage management plan is not advised.

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3.6.2 Historic cultural heritage

Are historic permits or consents required?

Under Section 93 of the *Heritage Act 2017* the Executive Director may issue a permit authorising works in relation to a Victorian Heritage Register (VHR) site and under Section 124 issue a consent authorising works in relation to a Victorian Heritage Inventory (VHI) site (or an archaeological site which is not recorded in the Victorian Heritage Inventory). While under Alpine Shire Council Heritage Overlay (HO), a permit under the *Planning and Environment Act 1987* is required for heritage places specified on their schedule to the overlay.

There are no registered VHR places, VHI places or HOs within the study area. At the time of writing, Biosis and AGL are in consultation with Heritage Victoria to determine if a VHI registration is warranted for the hardstand area (noted as Clover Dam Camp [South]). Despite this potential registration of the hardstand area on the VHI, as AGL does not intend any ground disturbing works, a consent or consent exemption is not required.

As there are no Alpine Shire Heritage Overlays, a permit from Alpine Shire Council is not required. The requirement for VHI consents and Alpine Shire Heritage Overlay permit has been outlined in Table 10.

Table 10 Requirement for VHI consents

Activity	VHI consent or consent exemption required?	Alpine Shire Heritage Overlay permit required?
Hardstand Area and secure storage	As no ground disturbing works are proposed, a consent or consent exemption will not be required.	No
Clover Tail Bay 2	No	No

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4 Implications and recommendations

- Aboriginal cultural heritage:
  - A mandatory CHMP is not required for the proposed works as the two-trigger threshold is not met.
  - A voluntary CHMP is not recommended for the proposed works as works either will not impact the ground, are underwater, or have been shown to be subject to significant ground disturbance.
- Historical cultural heritage:
  - No Heritage Victoria consents or consent exemptions are required

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26 July 2024

Michelle Nettlefold
Manager Land and Approvals - Operations
AGL

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By email: mnettlefold@agl.com.au

Dear Michelle,

Clover Dam – 66kv Power Pole Installation - Letter of Advice - Heritage

Our reference: 40073

This letter of advice outlines the statutory requirements under the *Aboriginal Heritage Act 2006, Heritage Act 2017* and the *Planning and Environment Act 1987* as they relate to the cultural heritage values of five pole replacement locations along the Bogong-High Plains Road between Mount Beauty and Bogong Village.

A review of the relevant background information and the *Aboriginal Heritage Act 2006* has determined a mandatory CHMP is not required. Given the levels of disturbance, the potential for the proposed activity to harm Aboriginal places is low-nil and a voluntary CHMP is not recommended.

A review of relevant historic cultural heritage information has identified that there is no requirement for statutory approvals under the *Heritage Act 2017* or the *Planning and Environment Act 1987*.

Further information on these conclusions is detailed below. Should you have any queries, please do not hesitate to contact me on 0418 343 455.

Yours sincerely,

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Daniel Carpenter
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Biosis acknowledges the Aboriginal and Torres Strait Islander peoples as Traditional Custodians of the land on which we live and work.
We pay our respects to the Traditional Custodians and Elders past and present and honour their connection to Country and ongoing contribution to society.

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The study area

The study area is comprised of five existing or proposed 66kv power pole locations and associated access tracks along the Bogong-High Plains Road south-east of Mount Beauty and north of Bogong Village. The terrain of the region is mostly steep slopes overlooking the Kiewa River. The Clover Dam, part of the Kiewa Hydro Scheme, is a prominent feature of the general area. The location of the study area can be found in Map 1.

Proposed works

As part of upgrades to Clover Dam Power Station, AGL will upgrade the 66kv line that currently runs between the power station and Mount Beauty. In order to facilitate the new power lines, four power poles require repair or replacement and one new power pole needs to be installed. Due to the remote nature of the proposed works, existing access tracks need to be upgraded in some locations in order to allow machinery access. Descriptions of works at each location can be found in Table 1. Mapping and descriptions of the proposed works provide by AGL can be found in Appendix 1.

Table 1 Summary of proposed works (poles listed in order from north to south along the Bogong-High Plains Road)

Power pole ID	Nature of works	Description of works
Pole 542A *(BID 262602344721)*	Pole installation	A new pole will be installed on a steep modified embankment to the north of the Bogong-High Plains Road, within the road reserve.
Pole 544 *(BID 5236694)*	Pole replacement and access track upgrade	An existing pole will be removed, and new pole will be installed with the existing stay also replaced. This will require upgrades to an existing access track to facilitate the movement of the requisite plant.
Pole 551 *(BID 5236701)*	Cross arm replacement and minor track upgrades	Works will include the replacement of the cross-arm of Pole 551. An elevated work platform (EWP) will be required to perform this work and minor track upgrades will be undertaken to facilitate access. This will involve the removal of boulders and fallen trees and potential introduction of road base to level flattened areas. No ground disturbing works are proposed.
Pole 553 *(BID 5236703)*	Pole replacement and access track upgrade	Works will include the replacement of Pole 553 and upgrades to approximately 1.1 kilometres of access track. The track upgrades will consist of the following tasks: • Importation of rock or gravel to lay down on wet or damaged areas • Removal of fallen trees and boulders • Repair of landslip area which will include further excavation into the slope • Grading and relevelling Complete resurfacing of the track is not envisaged but may be required depending on machinery used.
Pole 554 *(BID 5236704)*	Pole replacement	An existing pole will be removed, and new pole will be installed on a steep modified embankment to the east of the Bogong-High Plains Road near the Clover Dam wall and within the road reserve.

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ALPINE SHIRE
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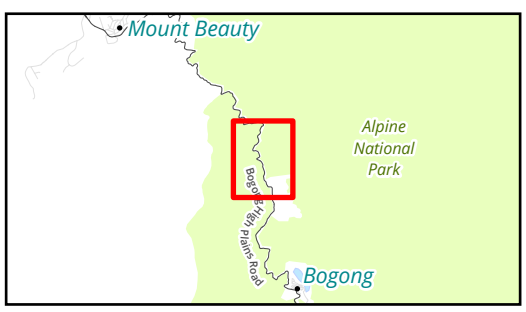
SPI 2009\PP3795
Roper Track
Bogong Creek
Kiewa River East Branch
SPI 2008\PP3795
SPI 2009\PP3795
SPI 1~7\PP3795
Alpine National Park
Alpine National Park
SPI 2011\PP2361
Clover Dam Camp (north) approximate location
SPI 2001\PP2361
Greene Creek
Bogong Creek Race
Bogong High Plains Road
SPI 2002\PP2361
Exposed pipe
Weir
SPI 11A\PP2361
SPI 2001\PP2361
Alpine National Park
SPI 11\PP2361
Clover Dam

Acknowledgements: VicMap BaseMap©State of Victoria



Map 1 Location of works and historic features

Legend

- Study area
- Current parcel boundary
- Place extent
- ★ Historic feature

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0 50 100 150 200
Metres
Scale 1:5,500 @ A3
Coordinate System: GDA2020 MGA Zone 55

biosis
APEM Group

Matter: 40073,
Date: 26 July 2024,
Prepared for: DRC, Prepared by: SP, Last edited by: spanter
Layout: 40073_Line_Her_M1_Location_works_historic
Project: P:\40000s\40073\Mapping\40073_ECO_CH_DD_Clover.aprx

Background Review

Aboriginal cultural heritage

A search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken by Daniel Carpenter, Biosis Pty Ltd, on 10 July 2024 using the VAHR application for access number: 13060. A search radius of 6 kilometres surrounding the study area was used.

There are nine previously registered Aboriginal places, with 63 components, within the search radius (see Table 2). The most commonly registered Aboriginal place type within this radius are artefact scatters (n=6) with lower occurrences of low density artefact distributions (LDADs) (n=2). An LDAD is a registration of stone artefacts at densities of up to ten counted artefacts in an area of approximately 10x10 metres including within a single test pit of ≤1m².

There is one registered object collection within the search radius located at the Kiewa Historical Society as part of an exhibition.

There are no Aboriginal places located in, or within 200 metres of the study area. The closest Aboriginal place to any of the works locations is VAHR 8324-0211 (Moncreif Gap Tk LDAD 1), located approximately 4 kilometres to the north of the proposed location of Pole 542A. Most of the registered places are located in the township of Mount Beauty, which has been subject to an archaeological assessment under CHMP 15407. This resulted in the identification of Aboriginal material in subsurface contexts.

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Table 2 Summary of Aboriginal Place components within the 6 kilometre radius

Component Type	Frequency (No.)	Frequency Percentage (%)
Artefact Scatter	6	9.5%
Low Density Artefact Distribution (LDAD)	56	88.9%
Object Collection	1	1.6%
Total	63	100%

A search of the VAHR identified 16 archaeological assessments that have taken place within the search radius. The most common report type is Desktop or Due Diligence or Other and Surveys (n=6), followed by CHMP Standard Assessments (n=2) and CHMP Complex Assessment (n=1) and heritage management plans (n=1). These have been presented in Table 3. None of these were conducted within the study area and are of limited relevance.

Table 3 Archaeological Assessment Types within a 6-kilometre radius of the study area

Assessment Type	Frequency (no.)	Percentage
CHMP Complex Assessment	1	6.25%
CHMP Standard Assessment	2	12.5%
Desktop or Paper or Due Diligence or Other	6	37.5%
Survey	6	37.5%
Heritage Management	1	6.25%
Total	**16**	**100.00%**

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Historic heritage

A search of the following historic heritage registers, using a 5-kilometre radius, was undertaken by Daniel Carpenter, Biosis Pty Ltd, on 20 May 2024.

- Victorian Heritage Register (VHR)
- Victorian Heritage Inventory (VHI)
- Alpine Shire Heritage Overlay (HO)

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No registered heritage places are present within the search area.

Land use history

The historical land use of the study area is related to the construction of the Kiewa Hydro Scheme. This scheme dramatically changed the region with the construction of the Kiewa scheme for the generation of hydroelectric power, but also the towns, major roads and public infrastructure such as hospitals constructed for the workers and families (Lawrence 2008).

The scheme was first proposed in 1911 (Lawrence 2008), however, construction of the scheme did not commence until 1937. It suffered delays and a reduction of the scope from the original plans due to a recession and resources being limited due to the Second World War (Kiewa catchment 2023).

Work was resumed in the mid-late 1940s after the end of the Second World War, with large numbers of migrant workers taking advantage of employment opportunities offered by the scheme (Lawrence 2008). Large worker camps including Mt Beauty and Bogong Village were constructed during this time, as well as many smaller workers' camps. At its peak, 4000 people were working on the scheme (Museum and History, 2022).

The scheme was completed and commissioned in 1960, though the final system was smaller than what had originally been planned. The final version consisted of four power stations (Lawrence 2008), five aqueducts and five dams which are all still in operation today (Kiewa catchment 2023). The scheme was privatised in the 1990s and was acquired by Southern Hydro during this period. It was then purchased by AGL energy in 2005 who currently retains ownership (Museum and History 2022).

The five locations that make up the study area are all likely to have been subject to some impact through the Kiewa Hydro Scheme construction, either by pole installation, access track construction or road construction. Four of the poles are replacement poles (Poles 544, 551, 553 and 554) and the access tracks are existing (for Poles 544 and 533) some level of disturbance of these locations is anticipated. The location of the new pole (Pole 542A) is on the edge of a roadway, so disturbance at this location is also likely.

AGL information

Prior to conducting the site inspection, Biosis received information from AGL of two potential historical features that may be relevant to the study. These are discussed in Table 4.

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Table 4 Potential historical features identified by AGL

Potential historical features	Location	Description
Small weir and exposed pipes	Near the access track to Pole 553	A small weir and exposed pipes in the vicinity of the access track leading to Pole 551.
Workers' camp	Along the proposed access route to Pole 551	Series of benches that was reported to have supported a number of workers' huts during the construction period of the Kiewa Hydro Scheme.

Predictive statement for study area

The background review has identified that there are very few registered Aboriginal places or archaeological reports in the search radius. The low number of reports is likely due to the lack of recent development that would have triggered such studies. As these studies can be the primary manner which Aboriginal places come to be registered, the lack of Aboriginal places in the vicinity is likely a representation of the low number of studies and does not by itself indicate a low potential for Aboriginal places to be present. A high level of ground disturbance is likely from Kiewa Hydro Scheme construction works, with pole installation, access tracks or road construction present at all of the locations that make up the study area. Based on this, the presence of Aboriginal cultural material in the study area is unlikely.

There are no registered historic places within the study area. AGL reported the presence of exposed pipes on the access track for Pole 553, as well as the benched area for the workers' accommodation along the proposed access route for Pole 551, and it is possible that these may have some historic heritage value.

Site inspection

The study area was inspected by Daniel Carpenter of Biosis Pty Ltd, on 14 February 2024. This was conducted in tandem with an ecology assessment conducted by Georgina Zacks of Biosis Pty Ltd. Also present was Amanda Clarke of AGL (client's representative). Each of the pole locations were inspected on foot and the proposed access path were either inspected on foot or via vehicle.

Pole 542A

The proposed location of Pole 542A is on the northern edge of the Bogong-High Plains Road. Evidence of mechanical excavation is present, the road being cut into the hillside and levelled with fill. The proposed pole location is within the fill on outer edge of the road.

Given the mechanical means that would have been required to create the cut and fill, this location would qualify as being subject to significant ground disturbance as defined under the *Aboriginal Heritage Act 2006* (see Appendix 2). Photographs of the location can be found in Photograph 1 to Photograph 3.

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Photograph 1 Proposed Location of Pole 542A (shown in red, facing west, D. Carpenter 14 February 2024)

Photograph 2 Proposed Location of Pole 542A (shown by range pole, facing east, D. Carpenter 14 February 2024)

Photograph 3 Large cut to the west of Pole 542A (facing south, D. Carpenter 14 February 2024). Note range pole for scale.

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Pole 544

Pole 544 is located on a spur on the south-west of a bend in the Bogong-High Plains Road, overlooking the road. It is approximately 100 metres to the south-east of the Pole 542A location at higher elevation of around 40 metres. It is accessed by a narrow vehicle track which is approximately 300 metres long.

Disturbance along the length of the track is evident, with cuts in the edge of the slope to facilitate access track construction. The location of Pole 544 is heavily disturbed with further cuts in the slope to facilitate machinery access as well as evidence of earthworks from the installation of Pole 544 and the associated pole stays.

Given the mechanical means that would have been required to create the cuts as well as the pole installation, this location would qualify as being subject to significant ground disturbance as defined under the *Aboriginal Heritage Act 2006* (see Appendix 2).

Photographs of the location of Pole 544 and the access track can be found in Photograph 4 to Photograph 8.

Photograph 4 **Pole 544 (to the right, facing north-east, D. Carpenter 14 February 2024)**

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Photograph 5 Pole 544 (facing east, D. Carpenter 14 February 2024)

Photograph 6 (in foreground, facing west, D. Carpenter 14 February 2024)

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Photograph 7 Access track leading to Pole 544 (facing south, D. Carpenter 14 February 2024)

Photograph 8 Access track leading to Pole 544 (facing south, D. Carpenter 14 February 2024)

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Pole 551

Pole 551 is located in the southern section of a heavily disturbed area which was identified by AGL as being associated with a workers' camp for the Kiewa Hydro Scheme construction. The location is a moderate slope that falls towards the Kiewa River East Branch which lies approximately 200 metres to the east.

Despite the levels of disturbance evident in the vicinity, the location of Pole 551 is outside of the obviously benched areas and no specific evidence can be presented as to the disturbance of the actual location of Pole 551. So, while significant ground disturbance, as defined under the *Aboriginal Heritage Act 2006* (see Appendix 2), is likely, this cannot be confirmed.

The approximate location of the workers' camp is shown on Map 1. Photographs of the location can be found in Photograph 9 to Photograph 13.

Photograph 9 Location of Pole 551 shown on the left (facing south, G. Zacks 14 February 2024)

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Photograph 10 Location of Pole 551 (facing north, D. Carpenter 14 February 2024)

Photograph 11 Location of Pole 551 (facing east, G. Zacks 14 February 2024)

Photograph 12 Evidence of benching in the vicinity of Pole 551 (facing north, D. Carpenter 14 February 2024)

Photograph 13 Evidence of benching in the vicinity of Pole 551 (facing north, D. Carpenter 14 February 2024)

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Pole 553

Pole 553 is located on a spur overlooking Bogong-High Plains Road and the Cover Dam wall. It is accessed by an approximately 1.1 kilometre access track, the condition of which ranges from fair to poor and impassable by vehicle. The access track is cut into the steep slope, with the excavated soil and stones likely deposited on the lower slope to construct the access track.

Near the access track and outside the study area there is a small weir with attached piping. Closer to the location of Pole 553, exposed pipes can be seen with the sound of running water evident. It is likely that this water is captured at the small weir and transported to the east. On the wall of the weir is a decommissioned steel pipe that may have been contemporary with the Kiewa Hydro Scheme. A secondary pipe made of PVC appears to have been installed in the weir wall at a later date and is likely still functional.

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The disturbance from the access track continues at the location of the Pole 553, with evidence of further excavation present. Given the mechanical means that would have been required to create the cut and fill for the access track, this location would qualify as being subject to significant ground disturbance as defined under the *Aboriginal Heritage Act 2006* (see Appendix 2).

The location of the weir and exposed pipes can be found on Map 1. Photographs of the location can be found in Photograph 14 to Photograph 24.

Photograph 14 Location of Pole 553 (circled in red) taken from Location of Pole 554 (facing north, D. Carpenter 14 February 2024)

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Photograph 15 Pole 553 (facing south-west, D. Carpenter 14 February 2024)

Photograph 16 Pole 553 (facing north-east, D. Carpenter 14 February 2024)

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Photograph 17 Access track leading to Pole 553 (taken from approximately 30 metres to the south west of Pole 553, facing south-west, D. Carpenter 14 February 2024)

Photograph 18 Access track leading to Pole 553,with Pole 553 to the left (taken from approximately 60 metres to the south west of Pole 553, facing north-east, D. Carpenter 14 February 2024)

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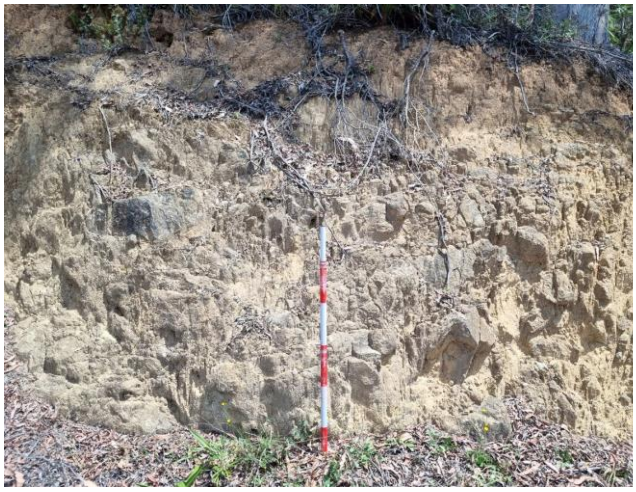
Photograph 19 Access track leading to Pole 553, (taken from approximately 60 metres to the south-west of Pole 553, facing south-west, D. Carpenter 14 February 2024)



Photograph 20 Example cut for access track, (taken approximately 80 metres to the south-west of Pole 553, facing north, D. Carpenter, 14 February 2024)

Photograph 21 Access track leading to Pole 553, (taken from approximately 160 metres to the south-west of Pole 553, facing west, D. Carpenter 14 February 2024)

Photograph 22 Access track leading to Pole 553, (taken from approximately 200 metres to the west of Pole 551, facing west, D. Carpenter 14 February 2024)

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Photograph 23 Small weir that had been reported by AGL near the access track to Pole 553 (facing north, D. Carpenter, 14 February 2024)

Photograph 24 Exposed section of pipe reported by AGL near the access track to Pole 553 (D. Carpenter, 14 February 2024)

Pole 554

Pole 554 is located on the edge of the Bogong-High Plains Road immediately to the west of Clover Dam. Evidence of mechanical excavation is present, the road being cut into the hillside and levelled with fill. The current Pole 554 has been driven into the fill on outer side of the road.

Given the mechanical means that would have been required to create the cut and fill, this location would qualify as being subject to significant ground disturbance as defined under the *Aboriginal Heritage Act 2006* (see Appendix 2).

Photographs of the location can be found in Photograph 25 to Photograph 27.

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Photograph 25 Pole 554 location (facing north, D. Carpenter 14 February 2024)

Photograph 26 Large cut to the west of Pole 554 (facing west, D. Carpenter 14 February 2024)

Photograph 27 Pole 554 location (facing south-east, D. Carpenter 14 February 2024)

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Conclusions from site inspection

The site inspection was conducted by Daniel Carpenter on 14 February 2024. This was conducted concurrently with an ecology site inspection and Georgina Zacks (Senior Botanist, Biosis Pty Ltd) with Amanda Clarke (AGL) also present.

The site inspection noted extensive disturbance throughout the study area from the construction of access tracks, roads, a workers' camp or previous pole installation. Although the site inspection noted functional piping at the location of Pole 553, given the modern PVC water connection at the weir location these are likely to be modern. Historical features were noted at the location of Pole 551; however, these will not be impacted by the proposed works.

A summary of the results of the site inspection has been presented in Table 5

Table 5 Site insepction results summary

Pole	Evidence of significant ground disturbance	Historical features	Ground disturbance proposed by works
Pole 542A	Yes	No	Yes
Pole 544	Yes	No	Yes
Pole 551	Disturbance likely but no evidence that would constitute significant ground disturbance	Yes	No
Pole 553	Yes	No	Yes
Pole 554	Yes	No	Yes

Consultation with Heritage Victoria

A meeting between Heritage Victoria, AGL and Biosis Pty Ltd took place via MS Teams on 27 June 2024. The focus of this meeting was to discuss the potential registration and management of archaeological sites identified during archaeological investigations for the Clover Power Station upgrades. Present at this meeting was Jacinta Bauer (Heritage Victoria), Daniel Carpenter, Gary Vines (Biosis Pty Ltd), Nigel Smith, Amanda Clarke and Michelle Nettlefold (AGL).

The discussion was mostly focussed on aspects of the Clover Dam Power Station not covered under this letter, however, access to facilitate the upgrades to Pole 551 were also discussed. During this meeting, the AGL team confirmed that access to Pole 551 could be achieved without ground disturbing works, and that works for access would be restricted to the removal of boulders and fallen trees and potential building up of areas on existing tracks. Jacinta Bauer of Heritage Victoria verbally confirmed that if no ground disturbing works were to take place, a consent or consent exemption would not need to be sought.

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Statutory requirements

Aboriginal cultural heritage

Is a mandatory cultural heritage management plan required?

Under Section 46 of the *Aboriginal Heritage Act 2006*, a mandatory Cultural Heritage Management Plan (CHMP) is required if the regulations require the preparation of the plan for the activity. Under Regulation 7 of the Aboriginal Heritage Regulations 2018, a CHMP is required for an activity if:

a) All or part of the activity area for the activity is an area of cultural heritage sensitivity; and
b) All or part of the activity is a high impact activity.

It must be noted that when Significant Ground Disturbance (SGD), as defined in the Regulations (r.5), has occurred throughout the entirety or part of an area of cultural heritage sensitivity (CHS), then the area of CHS is no longer an area of CHS under Regulations 25, - 37 and 39 - 41 and the proposed works will not require a mandatory CHMP.

A review of the *Aboriginal Heritage Regulations 2018* identified the following regulations relevant to the study area (Table 6 and Table 7).

Table 6. Areas of Cultural Heritage Sensitivity

Applicable Regulation	Area of CHS
r.26 Waterways 1. Subject to sub regulation (2), a waterway or land within 200 metres of a waterway is an area of cultural heritage sensitivity. 2. If part of a waterway or part of the land within 200 metres of a waterway has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.	Poles 551, 553 and 554 (and associated track upgrades) are within an area of cultural heritage sensitivity, namely Kiewa River East Branch.
r. 32 A park 3. Subject to subregulation (2), a park is an area of cultural heritage sensitivity. 4. If part of a park has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.	Poles 544, 551 and 553 (and associated track upgrades) are within an area of cultural heritage sensitivity, namely the Alpine National Park.

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Table 7. High Impact Activity

Applicable Regulation	High Impact Activity
r.46 Buildings and works for specified uses 1. The construction of a building or the construction or carrying out of works on land is a high impact activity if	

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Applicable Regulation	High Impact Activity
the construction of the building or the construction or carrying out of the works— a) would result in significant ground disturbance; and b) is for, or associated with, the use of the land for any one or more of the following purposes— ..... xxvii) a utility installation, other than a telecommunications facility, if— A) the works are a linear project that is the construction of an overhead power line with a length exceeding one kilometre or for which more than 10 power poles are erected	The works are a linear project with *less than 10 power poles*, therefore this is not a high impact activity.

Conclusions for a mandatory cultural heritage management plan

The proposed works do not meet the two-trigger threshold to prepare a mandatory CHMP. Therefore, a mandatory cultural heritage management plan is not required.

Is a voluntary cultural heritage management plan advised?

Under Section 28 of the *Aboriginal Heritage Act 2006* doing an act likely to harm Aboriginal cultural heritage is unlawful. Therefore, regardless of the requirement to prepare a mandatory CHMP, an assessment of the study area must be made to determine the likelihood that Aboriginal cultural heritage may be present.

Under Section 29 of the *Aboriginal Heritage Act 2006* a person who does an act that harms or is likely to harm Aboriginal cultural heritage does not commit an offence if -

(a) the person is acting-
(i) in accordance with a cultural heritage permit or approved cultural heritage management plan that applies to the Aboriginal cultural heritage

...

There is a provision under Section 45 of the *Aboriginal Heritage Act 2006* which allows for voluntary CHMPs to be prepared even if one is not required. The site inspection identified ground disturbance from road and access track and workers' camp construction and prior pole installation, most of which would constitute 'significant ground disturbance' as defined under the Act (see Table 5).

Conclusions for a voluntary cultural heritage management plan

Previous significant ground disturbance has occurred at the works locations involving cut and fill activities; therefore, there is nil/low potential for Aboriginal cultural heritage to remain and a voluntary cultural heritage management plan is not advised.

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Historic heritage

Are historic permits or consents required?

Under Section 93 of the *Heritage Act 2017* the Executive Director may issue a permit authorising works in relation to a Victorian Heritage Register site and under Section 124 issue a consent authorising works in relation to a Victorian Heritage Inventory site (or an archaeological site which is not recorded in the Victorian Heritage Inventory). While under Alpine Shire Council Heritage Overlay, a permit under the *Planning and Environment Act 1987* is required for heritage places specified on their schedule to the overlay.

Consultation with Heritage Victoria regarding the historical features around Pole 551 has confirmed that if no ground disturbing works occur, then a consent or consent exemption does not need to be sought. Therefore, there is no requirement to seek approvals for the cross arm replacement for Pole 551 and associated works.

The weir in the vicinity of Pole 553 will not be impacted by the proposed works. The exposed pipes at this location are functional and given the PVC connection to the weir, are likely modern in construction. Therefore, approvals do not need to be sought.

Is a historical heritage survey advised?

At the time of writing, Biosis and AGL are in consultation with Heritage Victoria to determine if a historical survey is warranted for the workers' camp near Pole 551.

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Conclusions

Aboriginal Heritage Act 2006

Requirements

The study area does not meet the two-trigger requirement to prepare a mandatory CHMP, therefore, there is no requirement to prepare a mandatory cultural heritage management plan under the *Aboriginal Heritage Act 2006*.

Recommendations

A voluntary cultural heritage management plan is not recommended as the potential for Aboriginal cultural heritage to be present within the study area is nil/low.

Heritage Act 2017

Requirements

There is a historical site in the vicinity of Pole 551; however, given that the works will not disturb the ground. There are no historical sites at the other pole locations. Therefore, a consent or consent exemption will not need to be sought from Heritage Victoria.

Recommendations

At the time of writing, Biosis is investigating the workers' camp site at the location of Pole 551 further to determine an appropriate extent for a VHI registration.

Planning and Environment Act 1987

Requirements

There are no requirements to obtain permits for the proposed works under the *Planning and Environment Act 1987*.

Recommendations

There are no further recommendations.

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Appendix 1 – Proposed works

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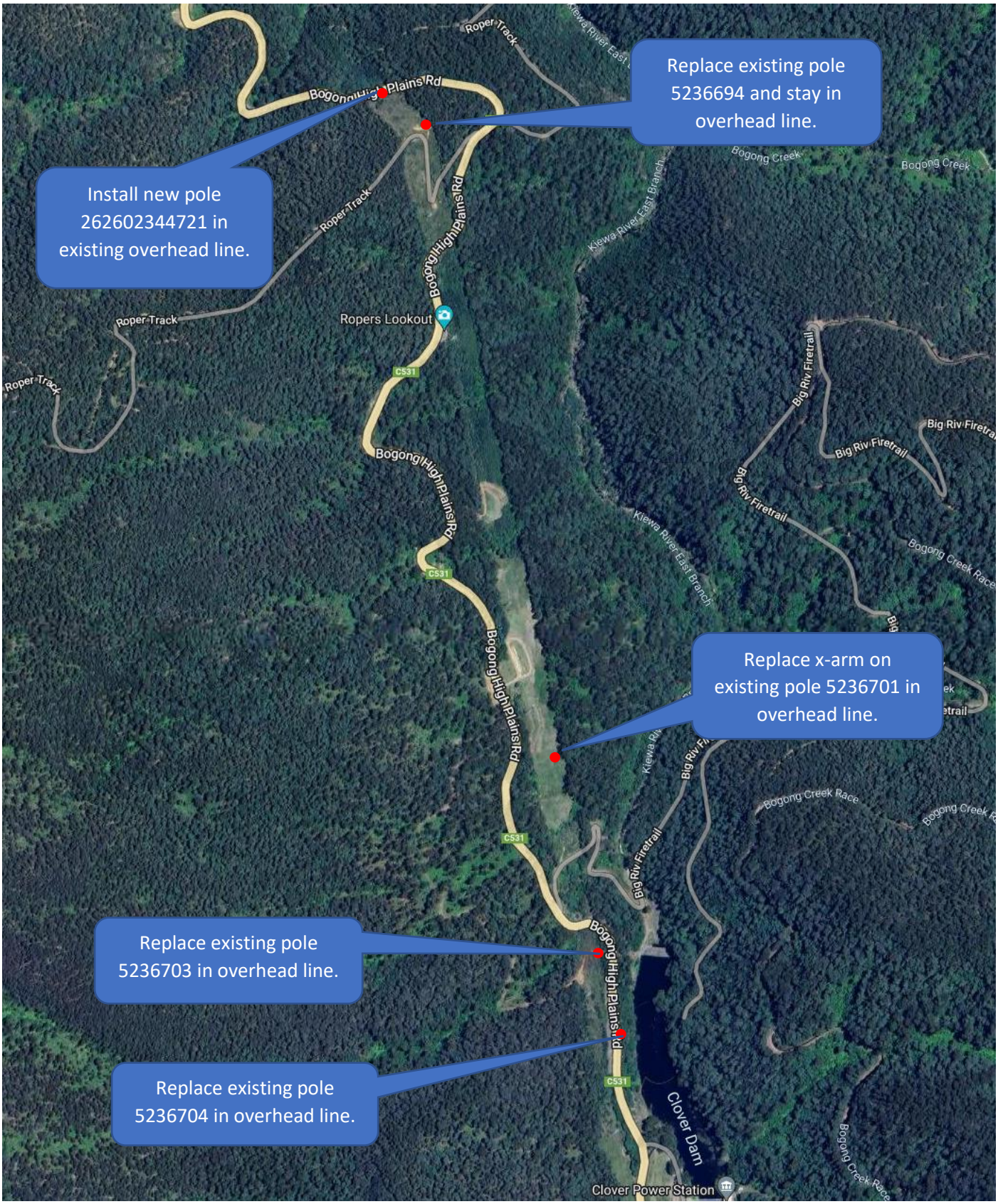

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MBTS-CLPS Pole 542A (BID 2602344721)

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MBTS-CLPS Pole 544 (BID 5236694)

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MBTS-CLPS Pole 551 (BID 5236701)

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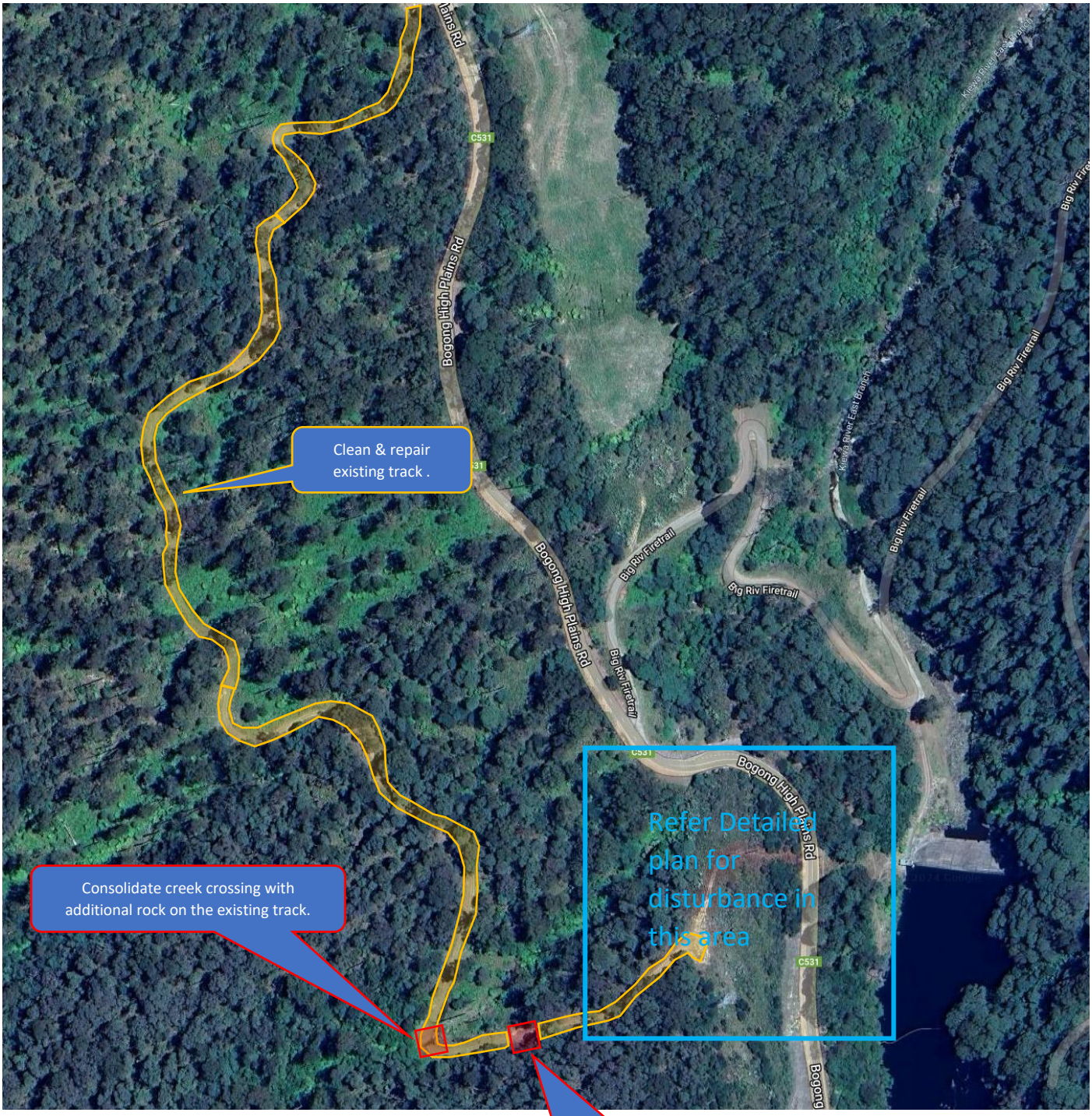
MBTS-CLPS Pole 553 (BID 5236703)



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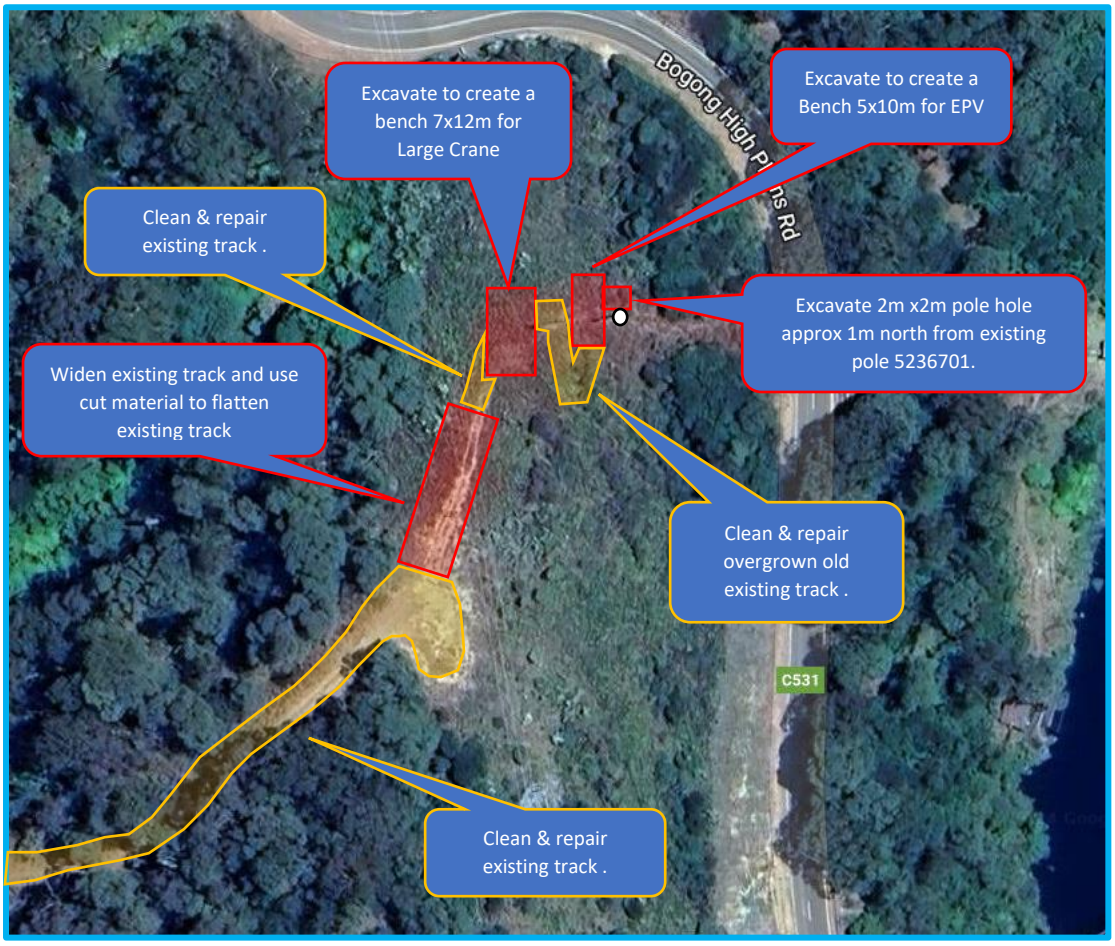

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MBTS-CLPS Pole 554 (BID 5236704)

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Appendix 2 – Definition of Significant Ground Disturbance under the *Aboriginal Heritage Act 2006*

5 Definitions

...

significant ground disturbance means disturbance of—

a) the topsoil or surface rock layer of the ground; or

b) a waterway—

by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping.

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