



NSW NATIONAL PARKS & WILDLIFE SERVICE

# Govetts Leap Lookout

Review of environmental factors for visitor precinct upgrade



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Cover photo: Govetts Leap Lookout with ironstone monument in foreground and views to Grose Valley beyond S Nichos/DPE

Published by:

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ISBN 978-1-922899-51-4  
EHG 2022/0457  
August 2022

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# 1. Brief description of the proposed activity

<b>Proposal name</b>	Govetts Leap Lookout Visitor Precinct Upgrade
<b>Description of proposed activity</b>	<p>New South Wales National Parks and Wildlife Service (NPWS) is proposing to redevelop the Govetts Leap Lookout, in the Blue Mountains National Park (the park), referred to as the Govetts Leap visitor precinct (Figure 1). The redevelopment aims to provide a more visitor-friendly, accessible and memorable experience for both local residents who make use of the area and cherish it, as well as first time and more distant visitors.</p> <p>The proposed activity is guided by <i>Govetts Leap visitor precinct plan</i> (Clouston Associates 2021 at Appendix A). The location of the proposed activity is shown in Figure 2, the proposed works are shown in Figure 3, civil engineering plans are provided in Appendix B (TTW Structural, Civil, Traffic 2021) and landscape plans are provided in Appendix C (Clouston Associates 2022).</p>
<b>Lands within proposal</b>	Blue Mountains National Park
<b>NPWS Area</b>	Upper Mountains Area
<b>Location of activity</b>	<p>Blue Mountains National Park (the park) covers an area of 269,000 ha and Govetts Leap Lookout is located approximately 90 km west of Sydney CBD.</p> <p>Govetts Leap is located at the end of Govetts Leap Road, Blackheath, and is located on the western side of the Great Western Highway, the main road that traverses the Blue Mountains and connects Sydney to Lithgow.</p>
<b>Council area</b>	Blue Mountains City Council
<b>NSW State electorate</b>	Blue Mountains
<b>Estimate capital cost of project</b>	\$3.4 million (excluding GST)
<b>Proposed commencement date</b>	August 2022
<b>Proposed completion date</b>	February 2023
<b>Estimated duration of proposal</b>	6 months for construction phase; perpetual operational phase.

## 2. Proponent's details

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<b>Position</b>	Manager, Upper Mountains Area
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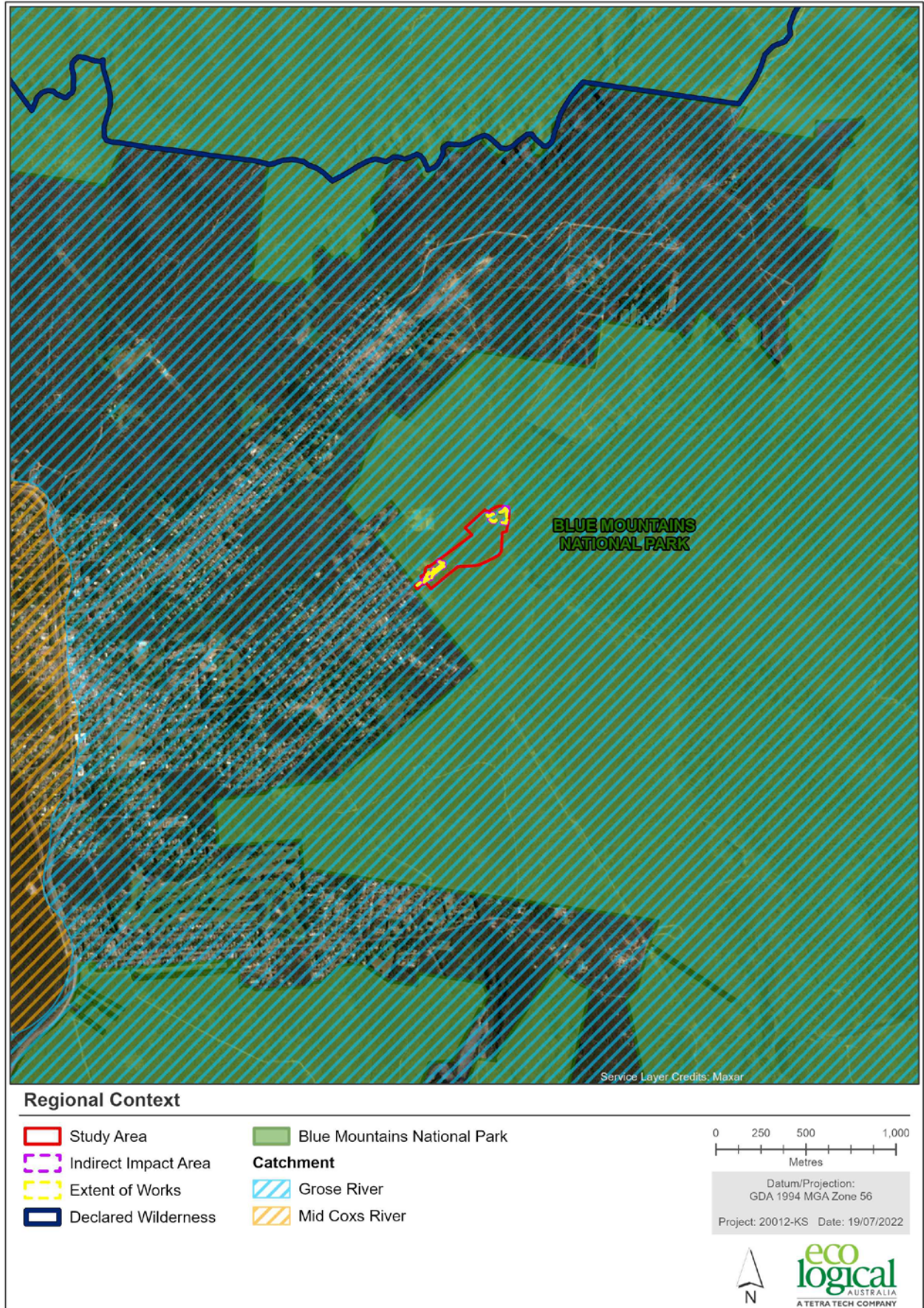


Figure 1 Regional context



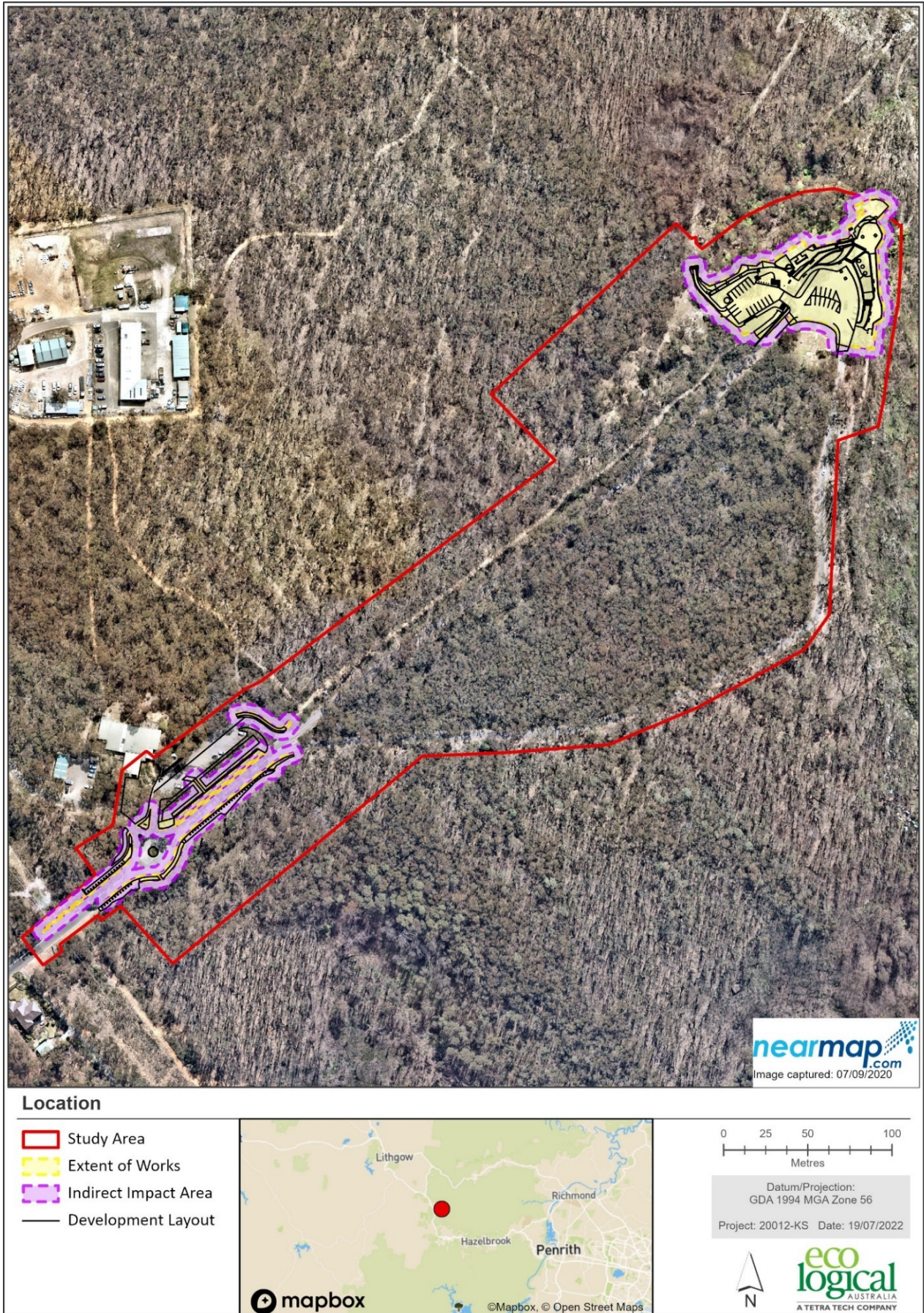


Figure 2 Location of proposed activity



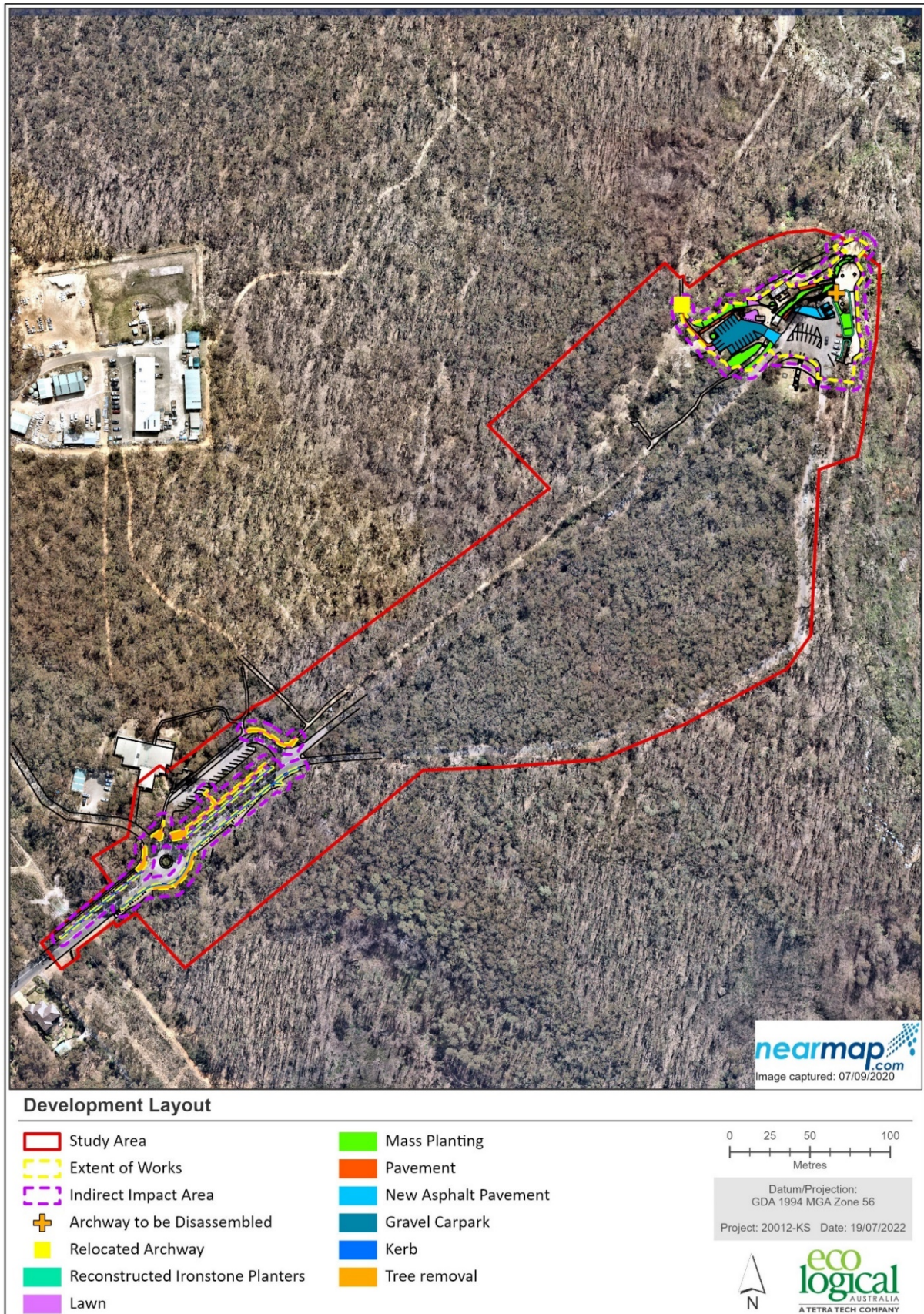


Figure 3 Proposed works



## 3. Permissibility and assessment pathway

### 3.1 Permissibility under NSW legislation

#### 3.1.1 National Parks and Wildlife Act 1974

##### Objects of the National Parks and Wildlife Act (s 2A)

The *National Parks and Wildlife Act 1974* (NPW Act) establishes the National Parks and Wildlife Service (NPWS), which is responsible for the control and management of all national parks, historic sites, nature reserves and Aboriginal areas (among others). The main aim of the Act is to conserve the natural and cultural heritage of NSW.

The objects of this Act (section [s] 2A.1) are as follows:

- a. the conservation of nature, including, but not limited to, the conservation of:
  - i. habitat, ecosystems and ecosystem processes
  - ii. biological diversity at the community, species and genetic levels
  - iii. landforms of significance, including geological features and processes
  - iv. landscapes and natural features of significance including wilderness and wild rivers
- b. the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including, but not limited to:
  - i. places, objects and features of significance to Aboriginal people
  - ii. places of social value to the people of New South Wales
  - iii. places of historic, architectural or scientific significance
- c. fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation
- d. providing for the management of land reserved under this Act in accordance with the management principles applicable for each type of reservation.

The proposed activity implements the NSW Government's policy directive, improving access to national parks, announced in February 2019 (NSW Liberal Party 2019). Funding has been provided to NPWS to upgrade visitor facilities to:

- increase the safety and accessibility of walking tracks and trails
- enhance visitor facilities (e.g. picnic areas, barbecues)
- increase support for families and people with restricted mobility, including upgrading access to iconic lookout points to a mobility-impaired access standard.

The proposed activity is part of the above policy and will be in accordance with objectives c) and d) of the NPW Act above. This is achieved through the application of relevant land management principles which in turn improves public appreciation, understanding and enjoyment of natural and cultural heritage.

The proposed activity will also seek to conserve the surrounding nature within and adjacent to the study area and in some instances improve nearby ecological communities and their habitat by better management of surface water flows, therefore also achieving objective a) above.

To address object b), Eco Logical Australia (ELA) has undertaken an Aboriginal heritage due diligence assessment, following the due diligence process set out in the Department of

Planning and Environment’s guidelines including the *Due diligence code of practice for the protection of Aboriginal objects in New South Wales* (DECCW 2010) to determine any potential impacts to Aboriginal objects or places. The assessment determined that no significant impact from the proposed activity will occur to any registered Aboriginal items or objects.

The proposed activity is therefore in accordance with the objects of this Act.

### Reserve management principles (s 30E)

A national park is to be managed in accordance with the following principles:

Section 30E national parks	Relevance to project
a. The conservation of biodiversity, the maintenance of ecosystem function, the protection of geological and geomorphological features and natural phenomena and the maintenance of natural landscapes	The proposed activity will not significantly impact on any threatened ecological communities or species or alter the geological and geomorphological features and natural phenomena of the park. The proposed activity will involve areas which are currently utilised by the public and have been designed to require minimal vegetation removal and excavation.
b. The conservation of places, objects, features and landscapes of cultural value,	The Aboriginal due diligence assessment did not identify any Aboriginal places, objects or features within the study area. Therefore, the proposed activity will not impact on any places, objects, features, and landscapes of cultural value.
c. The protection of the ecological integrity of one or more ecosystems for present and future generations	The proposed activity will require vegetation removal and ongoing management. However, no significant impacts to any threatened species, populations and communities are anticipated.
d. The promotion of public appreciation and understanding of the national park’s natural and cultural values	The improved access, amenity, facilities and views will provide more amenity for visitors to the precinct and incentivise public engagement, allowing for greater understanding of the natural and cultural values of the park and allowing people of all abilities to enjoy the area more easily.
e. Provision for sustainable visitor or tourist use and enjoyment that is compatible with the conservation of the national park’s natural and cultural values,	The proposed activity will allow for sustainable visitor and tourist use, in particular better management of surface flows and formalisation of visitor infrastructure creating clear barriers protecting the bush. The works will have a minimal impact on the park’s natural values as minimal vegetation and landscape disturbance is proposed to meet the objectives of the works.
f. Provision for the sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to the conservation of the national park’s natural and cultural values	The construction of the proposed activity will utilise existing areas of cleared and disturbed terrain, however some vegetation clearing is required to facilitate the works.

Section 30E national parks	Relevance to project
f. (a) Provision for the carrying out of development in any part of a special area (within the meaning of the <i>Hunter Water Act 1991</i> ) in the national park that is permitted under s 185A having regard to the conservation of the national park's natural and cultural values	The works will not be undertaken within a 'special area' within the meaning of the <i>Hunter Water Act 1991</i> .
g. Provision for appropriate research and monitoring	The proposed works will not inhibit the provision for appropriate research and monitoring of any of the park.

Due consideration has been taken for the provisions of the *Blue Mountains National Park plan of management* as amended in 2021 (NPWS 2001, 2021). The proposed activity does not compromise the objectives of the plan of management and is considered consistent with the following objectives:

- protection and promotion of the outstanding scenic values of the park including protection of views from within and from outside the park
- provision of a range of high-quality visitor facilities and information to encourage awareness and appreciation of the park and maintain the regional significance of the park in providing nature-based recreation and tourism opportunities
- management of recreation and tourism within the park to ensure sustainable use, to minimise the impacts on the park's natural and cultural features and to maintain opportunities for a diverse range of recreational experiences.

These objectives will be met through the provision of upgraded visitor precinct infrastructure, which will enable visitors to the park to gain more appreciation for the cultural and natural values of the park. The design of the upgrades will be sympathetic to the existing infrastructure in the study area and has been designed in order to reduce the overall impact of the works on the natural and historic values of the area. Furthermore, the improved visitor infrastructure will incentivise increased visitation and enable the area to be more readily used for recreational purposes.

Specifically, Section 4.3 of the plan of management (NPWS 2001) allows for the use of areas of the park for vehicle access, walking tracks, day use and other recreational opportunities. More specifically, the proposed activity is consistent with the plan of management as amended (NPWS 2021) which states the following in regard to redeveloping Govetts Leap:

'redevelop in accordance with the final Govetts Leap Visitor Precinct Plan, subject to relevant environmental and heritage assessments and approvals'.

The *Govetts Leap visitor precinct plan* (Couston Associates 2021) is provided in Appendix A.

### Leasing, licensing and easement provisions (Part 12)

Not applicable. NPWS is the proponent, and the proposed activity is not subject to a lease or licence.



### **3.1.2 Wilderness Act 1987**

Not relevant. Govetts Leap Lookout is not in a wilderness area.

### **3.1.3 Biodiversity Conservation Act 2016**

The activity is consistent with the biodiversity conservation objectives of the *Biodiversity Conservation Act 2016* (BC Act).

The BC Act seeks to:

- conserve biological diversity at bioregional and state scales
- maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations
- assess the extinction risk of species and ecological communities and identify key threatening processes through an independent and rigorous scientific process
- establish a framework to avoid, minimise and offset the impacts of proposed development and land use change on biodiversity.

Section 7.3 of the Act requires proponents of activities subject to Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to determine whether they will have a significant impact on threatened species. The test for significant impact is described in s 7.3 of the Act. A significant impact also occurs if the activity is carried out in an area of outstanding biodiversity value.

If a significant impact is likely to occur, the proponent of the activity must prepare a species impact statement in accordance with s 7.20 or a biodiversity development assessment report, if the proponent so elects.

It was determined that the proposed works will not have a significant impact on any threatened entities. Therefore, the preparation of a species impact statement or biodiversity development assessment report is not required. This assessment is provided in Section 11.

### **3.1.4 Rural Fires Act 1997**

The proposed works are consistent with the provisions of the *Rural Fires Act 1997*. Under this Act, NPWS is a prescribed fire authority and is responsible for the control and suppression of all fires on lands that it manages.

The objectives of the Rural Fires Act are to provide for:

- the prevention, mitigation and suppression of fires
- coordination of bushfire fighting and prevention
- protection of people and property from fires
- protection of the environment.

The Act outlines the responsibilities of landowners to manage their land for bushfire protection and provides a mechanism for the approval of hazard reduction works through the issue of a bushfire hazard reduction certificate. Section 63 specifies that it is the duty of the owner or occupier of land to take the notified steps (such as any listed in a bushfire management plan) and any other practicable steps to prevent the occurrence of bushfires on, and to minimise the danger of the spread of bushfires on or from, that land.

The proposed works will not have any impact on matters outlined under the Rural Fires Act.

### 3.1.5 Fisheries Management Act 1994

The *Fisheries Management Act 1994* (FM Act) provides for the protection, conservation and recovery of threatened species defined under the Act. It also makes provision for the management of threats to threatened species, populations and ecological communities defined under the Act, as well as the protection of fish and fish habitat in general. In particular, the FM Act has mechanisms for the protection of mangroves, seagrasses and seaweeds on public water land and foreshores.

The proposed works do not involve harm to marine vegetation and, therefore a permit under s 205 of the FM Act is not required. Govetts Leap Brook and Govetts Creek are mapped as key fish habitat, (see Section 8.1.4 for details). It is not anticipated that impacts to these watercourses will occur if the recommended safeguards are adopted. No other permits under the FM Act are likely to be required.

## 3.2 Assessment pathways

### 3.2.1 Environmental Planning and Assessment Act 1979

The activity may be undertaken without development consent under the provisions of s 2.73(1)(a) of *State Environmental Planning Policy (Transport and Infrastructure) 2021* ('Transport and Infrastructure SEPP') because:

- it is on land reserved under the NPW Act or acquired under Part 11 of the NPW Act, and
- it is for a purpose authorised under the NPW Act.

The activity is not designated development under Schedule 3 of the Environmental Planning and Assessment Regulation 2001.

The activity is not 'state significant infrastructure' under Schedule 3(7) of the *Planning Systems SEPP*.

The activity is not designated development under s 2.7(2) of the *Resilience and Hazards SEPP*.

### 3.2.2 Heritage Act 1977

The activity is on land that contains:

- an item listed on the State Heritage Register
- a place, building, landscape feature or moveable heritage item older than 25 years.

Govetts Leap is part of the complex of 37 tracks which are listed on the State Heritage Register as 'Blue Mountains Walking Tracks' (SHR item 00980). Govetts Leap is significant for its views and the tracks have historical, aesthetic, social and research heritage values providing bushwalking access to visitors for over 100 years.

Govetts Leap also includes 6 locally listed items that have historical, social and aesthetic values (see Section 8.2.2).

The proposal provides upgrades to improve parking and accessibility while retaining the significant elements of Govetts Leap. The precinct will continue to be used for recreation purposes and will be accessible to a larger range of users. There will be no impact to significant elements, geology, history and views and vistas, and the walking tracks will remain unchanged. Known and potential heritage impacts resulting from the proposal are negligible.

The proposal will have positive impact on the heritage significance of Govetts Leap as well as the values of the wider Blue Mountains in the following way:

- It continues a use in keeping with the original intention of the place.
- It enhances the accessibility, use and amenity of the place for visitors.
- The heritage values of the place will be maintained, with no adverse impacts to views, setting, archaeology or heritage items.
- It complies with the relevant management strategies and policies identified in the plan of management (NPWS 2001, 2021) and conservation management plan (Smith et al. 2006).
- It ensures the long-term use and appreciation of the place.
- It does not adversely impact on the local, state, national or World Heritage values for which the place is listed.
- It ensures the long-term use and appreciation of the place.

### 3.2.3 Environment Protection and Biodiversity Conservation Act 1999

The activity is on land that contains the following, or the activity may affect:

- World Heritage values of a place on the World Heritage List or National Heritage values of a place on the National Heritage List
- nationally listed threatened species and ecological communities, or listed migratory species.

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protects matters of national environmental significance, such as threatened species and ecological communities, migratory species (protected under international agreements), and National Heritage places (among others). Any actions that will or are likely to have a significant impact on the matters of national environmental significance require referral and approval from the Australian Government Environment Minister. Significant impacts are defined by the Commonwealth (DCCEE n.d.) for matters of national environmental significance.

Govetts Leap is part of the World Heritage-listed Greater Blue Mountains Area in recognition of its significant outstanding universal natural values.

It was concluded that the proposed works are unlikely to have a significant impact on any threatened entity or other matter of national environmental significance.

## 3.3 Consistency with NPWS policy and procedure

The activity is consistent with NPWS policies and procedures as described below.

Policy name	How proposal is consistent
<i>Walking tracks policy</i>	<p>In accordance with the <i>Walking tracks policy</i>, tracks must be appropriately located, designed to minimise environmental impacts, and appropriate to the setting. The planning, development and management of walking tracks should also take into account public safety issues, how the track fits within other walking opportunities, such as off-park tracks, opportunities to provide access for people with disabilities, and resources needed to keep the track maintained.</p> <p>The proposed activity is improving access for people with disabilities to enjoy the amenity of the area. Additionally, the works will improve facilities for people using the walking tracks.</p>

Policy name	How proposal is consistent
	The design of the proposed activity was developed to have a minimal environmental impact.
<i>No smoking in parks policy</i>	Smoking is prohibited in all NSW national parks to make them safer and cleaner for the community. On-the-spot fines apply.
<i>Vehicle access policy</i>	<p>NPWS manages vehicle access to parks to keep staff and visitors safe and limit impacts on the park environment. Vehicle access must not cause unacceptable impacts on natural and cultural heritage. The purpose of vehicle access is to supply opportunities for visitors to understand, enjoy and appreciate parks, and take maximum advantage of interpretive opportunities and scenic values.</p> <p>The proposed activity provides a carpark within the park to allow pedestrian access to walking tracks and other facilities. The proposal is in accordance with the policy as it does not provide unacceptable vehicle access but enables opportunities for visitors to enjoy the park.</p>
<i>Landslides and rockfalls policy</i>	<p>National parks are largely natural areas and can be inherently dangerous. Some natural geological features in parks, such as boulders, cliffs, steep mountains, caves and unstable landforms, may also be hazards. NPWS's priority in managing landslides and rockfalls in parks is to protect life and property, consistent as far as possible with conserving the natural and cultural values of parks. NPWS is constantly undertaking landslide risk assessments of areas in the park in accordance with the NPWS <i>Landslides and rockfalls policy</i>. A quantitative risk assessment of the park undertaken in 2019 to 2022 identified sites of high risk throughout Blue Mountains National Park, including areas adjacent to and below Govetts Leap Lookout. However, Govetts Leap Lookout remained low risk and open to the public. Further to this, additional assessments have been undertaken after rockfall incidents in the area, and Govetts Leap has been assessed as safe to be reopened to the public.</p> <p>In relation to the proposed activity, a geotechnical investigation was completed (Geotechnique 2021 at Appendix D) for the proposed activity which found the underlying geotechnical condition appropriate for the proposed activity subject to mitigation measures provided in Section 9.</p> <p>The investigation also provides civil and structural engineering requirements for the works, including structures, pavements, retaining walls and slopes. These requirements must be incorporated into the detailed design and construction process.</p> <p>In addition, a specific investigation of 2 retaining walls located in proximity to the escarpment was undertaken (Geotechnique 2022 at Appendix E).</p>

### 3.4 Type of approval sought

Internal NPWS approval or authorisation, including expenditure, is required. There are no existing approvals, such as permits, leases, licences or easements which apply to part or all of the proposed activity.

## 4. Consultation – general

In 2020, a draft visitor precinct plan for Govetts Leap was publicly exhibited, and feedback included in public submissions was incorporated into the revised design plan. Following this, a community information day was held in May 2021 to progress the planning and present and discuss a preferred design. In addition, the scope of works was marked-out at the lookout site and NPWS officers were available to answer direct queries.

For those that couldn't make the information day, NPWS provided flyers that explained the critical features of the proposed activity. These were delivered to local residents.

No major submissions were received following the information day and the scheme as presented in the visitor precinct plan (Appendix A) is the final concept design.

A briefing meeting was held with Dharug community in October 2021 to discuss Aboriginal cultural heritage and design issues.

NPWS also set up a webpage to inform the local and wider community of the proposed activity (see link in the 'More information' section).

Interested parties can register for project updates on the NPWS website or through email. NPWS will continue to provide updates prior to construction commencing and during the construction period. Public signage will also inform bushwalkers of alternate walking access around the site. Traffic signage will be in place to warn car-based visitors of closures during construction.

### 4.1 Consultation required under Transport and Infrastructure SEPP

#### 4.1.1 Local council (s 2.10, 2.11, 2.12 and 2.14)

The activity is on land that contains:

- heritage items listed under the local environmental plan (LEP).

#### Consultation with Blue Mountains City Council

Consultation with Blue Mountains City Council should be undertaken to mitigate any potential impacts the activity may have on the 6 local listings related to Govetts Leap. Section 2.11(2) of the *Transport and Infrastructure SEPP* states that a public authority, or a person acting on behalf of a public authority, must not carry out development to which this clause applies unless the authority or the person has:

- a. had an assessment of the impact prepared, and
- b. given written notice of the intention to carry out the development, with a copy of the assessment and a scope of works, to the council for the area in which the heritage item or heritage conservation area (or relevant part of such an area) is located, and
- c. taken into consideration any response to the notice that is received from the council within 21 days after the notice is given.

As such, a copy of this REF should be provided to Blue Mountains City Council and their response taken into consideration.



#### **4.1.2 Roads or maritime (s 2.15(2)(c) or Schedule 3)**

Not applicable. The activity is not:

- a fixed or floating structure in navigable waters
- traffic-generating development on main roads.

#### **4.1.3 Secretary of the Commonwealth Department of Defence (s 2.15(2)(e))**

Not applicable. The activity is not development on defence communications facility buffer land within the meaning of clause 5.15 of the Standard Instrument.

#### **4.1.4 Siding Spring Observatory (s 2.15(2)(d))**

Not applicable. The activity will not increase the amount of artificial light in the dark night sky within 200 km of the Siding Spring Observatory.

#### **4.1.5 Mine subsidence area (s 2.15(2)(f))**

Not applicable. The land is not in a mine subsidence district within the meaning of the *Coal Mine Subsidence Compensation Act 2017*.

### **4.2 Consultation requirements under Fisheries Management Act 1994 (s 199)**

Not applicable. The works will not affect submerged land such as creeks, streams and rivers (including intermittently submerged areas, such as wetlands and non-perennial creeks) that involve excavation, removing material, depositing material or draining water.

### **4.3 Consultation requirements under NPW Act for leases and licences**

Not applicable. No leases or licences under the NPW Act are required as part of the proposed activity.

## **5. Consultation – Aboriginal communities**

### **5.1 Native title consultation requirements**

The land is subject not to an Indigenous land use agreement.

There has not been a determination of native title applicable to the land, nor is there a native title claim pending.

Native title has not been extinguished or it is unclear if it has been extinguished.

The activity does not have a high risk of adversely affecting native title (e.g. major infrastructure works, new buildings or granting of leases).

## 6. Proposed activity (or activities)

### 6.1 Location of activity

<b>Lands within proposal</b>	Blue Mountains National Park
<b>Description of location</b>	<p>Govetts Leap is located at the end of Govetts Leap Road, Blackheath, and is located on the north-eastern side of the Great Western Highway, the main road that traverses the Blue Mountains and connects Sydney to Lithgow.</p> <p>Govetts Leap is a visitor precinct located on the escarpment edge overlooking the Grose Valley. Several walking tracks and lookouts are accessible from this location, including the Fairfax Heritage Track, Popes Glenn / Pulpit Rock Track, Clifftop Track and Rodriguez Pass.</p>
<b>Site commonly known as</b>	Govetts Leap
<b>Lot/DP</b>	N/A
<b>Street address</b>	N/A
<b>Site reference</b>	<p>Easting: 1501839          Northing: 333741          AMG zone: 56          Reference system: GDA 94</p>

### 6.2 Description of the proposed activity

NSW National Parks and Wildlife Service (NPWS) is proposing to redevelop Govetts Leap Lookout, located within the Blue Mountains National Park (the park), referred to as the Govetts Leap visitor precinct.

The redevelopment aims to provide a more visitor-friendly, accessible and memorable experience for both local residents who make use of the area and cherish it, as well as first time and more distant visitors.

The following upgrades from the *Govetts Leap visitor precinct plan* (Appendix A) are to be implemented as part of the proposed activity:

- removal of existing pavement around the lookout and regrading works to ensure compliance with relevant *Disability Discrimination Act 1992* codes
- replacement of the lookout barrier with architectural metal balustrade
- construction of raised turf area and stone seating
- installation of accessible parking spaces
- shuttle/bus drop-off and collection
- additional accessible paving, ramps and footpaths
- resurfacing and formalisation of existing gravel carpark

- construction of asphalt paving for parking areas
- extensive new planting beds to lookout
- new gravel and concrete pathway connections to formalise the existing informal path to the Blue Mountains Heritage Centre
- placement of entry feature including bollards, planting and signage at the Heritage Centre entrance and Govetts Leap Road
- relocation of the ironstone archway from lookout to enable appropriate grades for accessibility.

Further improvements for visitors, including upgraded pedestrian pathways and wayfinding, will also be constructed to improve the lookout's amenity. The proposed development layout is shown in Figure 4 (Heritage Centre carpark) and Figure 5 (Govetts Leap Lookout), civil plans are provided in Appendix B, and landscape plans are provided in Appendix C.



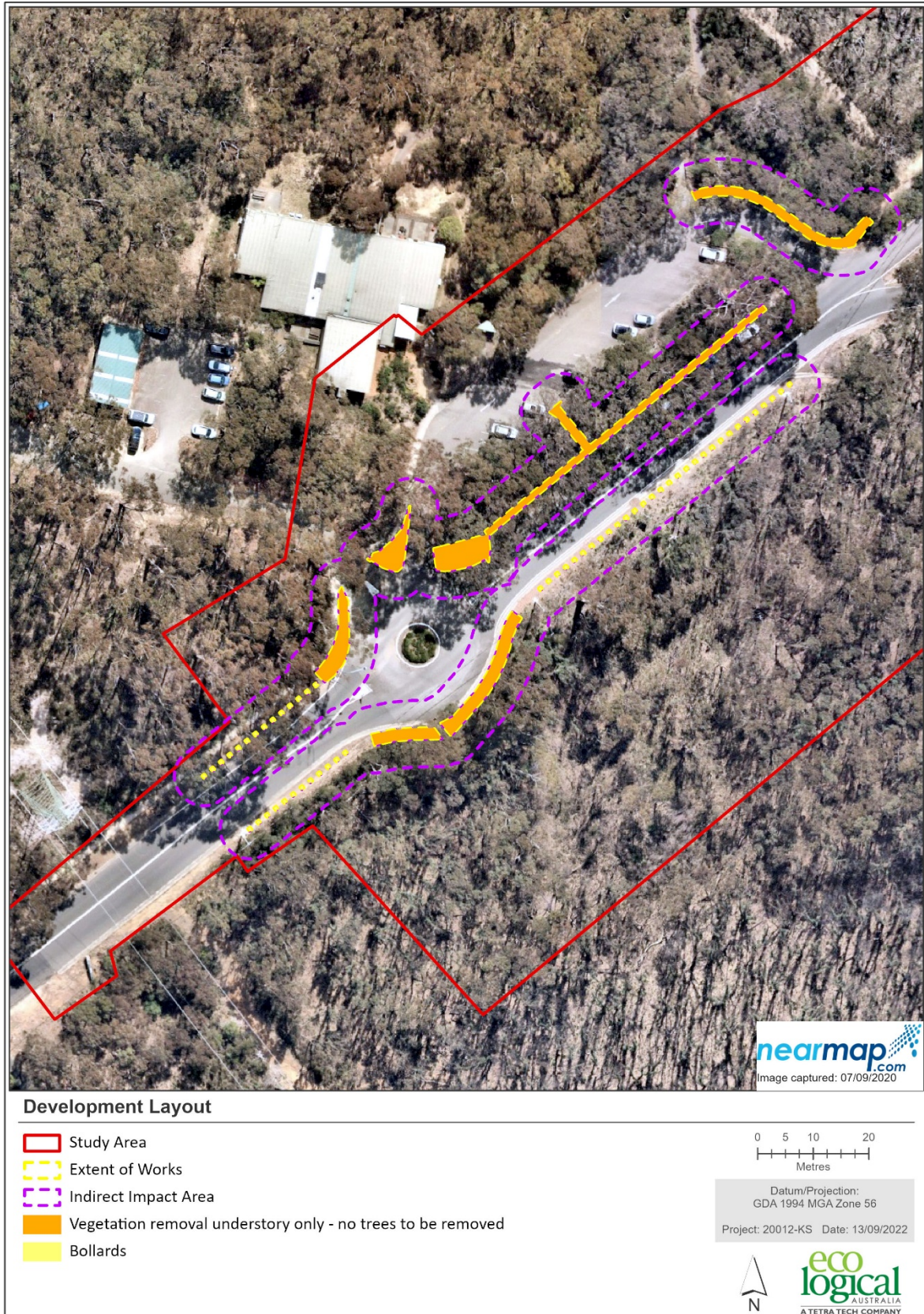


Figure 4 Development layout – Blue Mountains Heritage Centre carpark



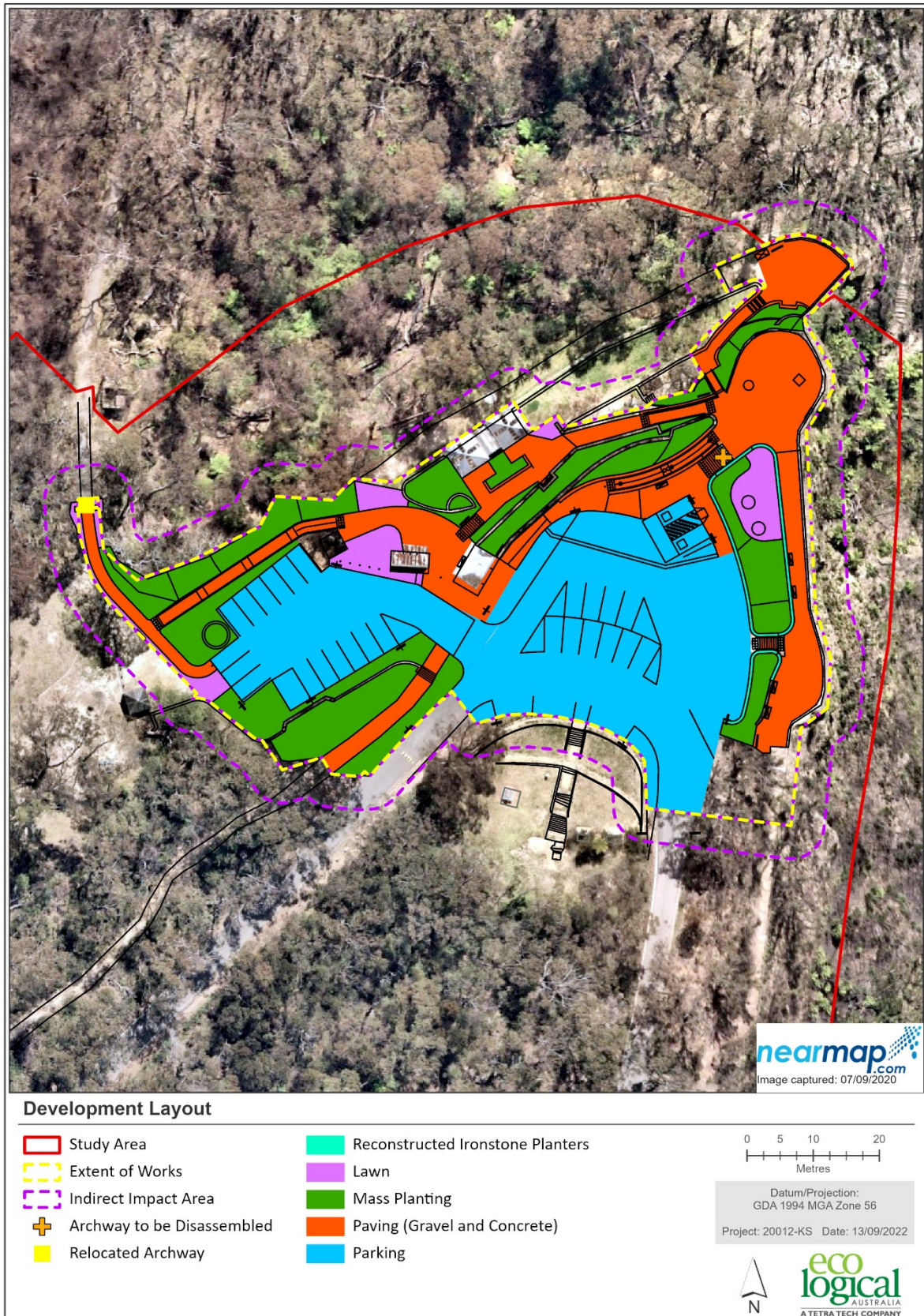


Figure 5 Development layout – Govetts Leap Lookout

## 6.2.1 The proposed activity: pre-construction, construction and post-construction

The following description details the proposed approach for the works. The civil engineering plans were prepared by TTW Civil and are provided in Appendix B.

### Pre-construction

- Transportation of machinery, equipment and materials to the study area and establishment of site storage areas within previously cleared/disturbed areas. If machinery is to be left on site overnight, it will be kept behind temporary security fencing.
- Installation of sediment and erosion protection measures in accordance with the erosion and sediment control plan, which will be developed using the *Soils and construction, managing urban stormwater* (Landcom 2004, also known as 'the blue book') with reference to Chapter 5 'Erosion control: management of water' and *Erosion and sediment control on unsealed tracks* (OEH 2012).
- Installation of protection and exclusion fencing around vegetation that is to be protected and to delineate the area of works.
- Installation of traffic management measures in accordance with traffic management plan (to be prepared).

### Construction

Vegetation management:

- tree removal in accordance with the arboricultural impact assessment (see Section 9.2)
- minor vegetation removal.

Demolition works and excavation:

- removal of existing features that are to be demolished, such as dilapidated barriers, old lookout paving and sections of walls in locations to allow for the new pathway alignment
- cut and fill excavation within lookout carpark surface that creates levels appropriate for universal access
- ironstone archway to be dismantled and stone stored for reconstruction.

Lookout carpark construction:

- installation of stormwater management system
- laying of bitumen and gravel coat seal of carpark surfaces
- provision of new line marking, including shoulder lines, 2 accessible carparking spaces and 36 carparking spaces
- installation of ramps, and stairs connecting to visitor infrastructure
- ironstone archway reconstructed at head of trail to the north of the lookout.

Main entry/Heritage Centre carpark construction:

- installation of new planting areas adjacent to road
- construction of new paths connecting existing paths to one another
- provision of new line marking, including shoulder lines, pedestrian crossing and 18 carparking spaces



- installation of new wayfinding and Transport for New South Wales (Transport for NSW) signage
- mass plantings along the road verge.

Visitor infrastructure:

- construction of pathways and ramps compliant with Australian Standards to provide disability access to toilets
- construction of new lookout levels allowing accessible manoeuvrability around the lookout area – this includes the provision of handrails along ramps and barriers to lookout
- ironstone walls to be reconstructed in accordance with Appendix M
- installation of new wayfinding signage, seating and barriers.

### Post-construction and site rehabilitation

- revegetation of cleared areas
- removal of all sediment and erosion controls
- removal of all other construction materials and study area clean-up.

## 6.2.2 The activity footprint (size of the area of impact)

The direct impact area of the proposed activity is 0.55 ha, 0.30 ha of which is on cleared land. In addition, this assessment has also allowed for a 2 m indirect construction buffer around all works which equates to an additional 0.61 ha of indirect impacts, 0.18 ha of which is on cleared land. Impacts in this area will be minimised through mitigation measures provided in Section 9.

Table 1 presents the extent of impacts to vegetation from excavations and clearing associated with the proposed activity. Section 8.1.8 includes a description and map of these vegetation types.

**Table 1 Impact areas associated with the proposed activity**

Vegetation	Direct impact area (ha)	Indirect impact area (ha)	Total impact area (ha)
Cleared/Built	0.297	0.188	0.385
PCT 1127: Sandstone cliff-face soak of the Sydney Basin Bioregion (not validated)	0.001	0.025	0.026
PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the upper Blue Mountains, Sydney Basin Bioregion (Burnt/Moderate)	0.076	0.307	0.383
PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the upper Blue Mountains, Sydney Basin Bioregion (Good)	0.000	0.004	0.004
PCT 769: Coachwood – lilly pilly warm temperate rainforest in moist sandstone gullies, Sydney Basin Bioregion (Low)	0.001	0.012	0.013
Planted	0.178	0.068	0.244

Vegetation	Direct impact area (ha)	Indirect impact area (ha)	Total impact area (ha)
<b>Total</b>	<b>0.553</b>	<b>0.605</b>	<b>1.158</b>

### 6.2.3 Proposed construction methods, materials and equipment

Equipment and materials:

- milling machine
- excavator
- haulage trucks
- paving machine
- concrete and asphalt delivery trucks
- compactors and rollers
- hand tools for construction and vegetation maintenance.

### 6.2.4 Receipt, storage and on-site management for materials used in construction

Equipment and materials:

- small excavator able to manoeuvre through the pathway alignment and construction buffer
- haulage trucks
- paving machine
- compactors and rollers
- hand tools for construction and vegetation maintenance.

A construction compound will be prepared on site and comprise of an 1,800 mm high temporary fenced compound containing site sheds, storage areas for stone, storage areas for steel, contractor parking, etc.

### 6.2.5 Environmental safeguards and mitigation measures

Refer to Section 9.

### 6.2.6 Sustainability measures – including choice of materials (such as recycled content) and water and energy efficiency

Excavated materials will be reused as fill, where possible. Construction will reuse materials where possible such as bricks, ironstone and sandstone building materials. Natural ironstone will also be recovered from earthworks.

### 6.2.7 Construction timetable and staging and hours of operation

Works hours will be in accordance with the *Interim construction noise guidelines* (DECC 2009):

- Monday to Friday 7 am to 5 pm
- no work on Saturday, Sunday or public holidays.

### **6.2.8 Ancillary facilities to support construction and operation**

Temporary signage to signal area closures and works in progress will be erected prior to any construction works starting and will be removed following completion.

NPWS will advise the public of any temporary closures via the NPWS website.



## 7. Reasons for the activity and consideration of alternatives

### 7.1 Objectives and reasons for the proposal

The key objectives of the project include:

1. to provide accessible access to Govetts Leap, allowing people with reduced mobility to enjoy the park
2. to provide enhanced amenity to all visitors to the park
3. to increase public engagement and enhance recreational values within the park.

#### 7.1.1 Reasons for the activity

The proposed activity implements the NSW Government's improving access to national parks policy (NSW Liberal Party 2019). The policy was publicly announced in February 2019. Funding has been provided to NPWS to upgrade visitor facilities to:

- increase the safety and accessibility of walking tracks and trails
- enhance visitor facilities (e.g. picnic areas, barbecues)
- increase support for families and people with restricted mobility, including upgrading access to iconic lookout points to a mobility-impaired access standard.

Govetts Leap is a popular lookout location and is known as one of the best locations in Blackheath to experience the spectacular views of the Grose Valley, Mount Banks, Mount Hay and Mount Wilson. It has been identified, along with Evans Lookout and Conservation Hut, as an area to be upgraded.

As it stands, the lookout at Govetts Leap is not easily accessible to people with restricted mobility. In addition, the existing lookout infrastructure requires repair or replacement to better suit the needs of visitors and reflect the unique nature of the precinct. The current paths are uneven and do not meet accessible standards, and many areas can only be accessed by steps. Accessibility is hampered further as there are no disabled car spaces, no parking for minibuses, no formed traffic aisles or parking spaces. In addition, the current safety barriers are non-complaint with current relevant standards.

The study area is located within the project opportunity cluster 'WD.1.7 Mid Blue Mountains' in the *Sydney green grid: west district plan* (Tyrrell Studio 2017). In particular, the proposed activity will help provide local communities with enhanced public spaces in accordance with the plan.

### 7.2 Consideration of alternatives

#### 7.2.1 Alternatives to the proposal

The 'do nothing' approach would result in no increase to the amenity of the park and would not increase incentives for visitation or usage of the area. Furthermore, the carpark would continue to degrade, creating potential slip and trip hazards to visitors. The do-nothing approach would also not allow for people with reduced mobility to enjoy the lookout precinct.

Other lookouts and visitor precincts have already been upgraded within the park. This includes the Three Sisters Lookout in Katoomba and the Wentworth Falls Lookout,

overlooking the Jamison Valley portion of the park. For locations that overlook and provide access to the Grose Valley portion of the park, Govetts Leap Lookout and Evans Lookout are the most suited as there is existing infrastructure and access points in these locations. As such, these locations are well suited for accessibility upgrades, due their close proximity to carparks, meaning people with reduced mobility do not need to travel far to enjoy the park.

In addition, it is not considered appropriate to clear new locations within the park to provide visitor infrastructure. To reduce impacts to the biodiversity of the park, upgrading existing visitor infrastructure is considered more suitable to meet the demands of visitors to the park.

## **7.2.2 Justification for preferred option**

If the proposed activity is not approved, it would continue to lead to inconvenience to members of the public and further inhibit access to the lookout precinct for visitors with reduced mobility.

The proposed activity has been provided funding through the NSW Government's improving access to national parks policy (NSW Liberal Party 2019) which identifies upgrades to lookouts, in turn enabling accessible access to national parks. In addition, the plan of management as amended in 2021 (NPWS 2021) enables these works to occur.

The Govetts Leap visitor infrastructure is deteriorated and does not allow access for visitors with reduced mobility. Therefore, the proposed activity must be undertaken to ensure the ongoing attractiveness of the precinct to visitors and people with reduced mobility.

The Govetts Leap Lookout visitor precinct upgrade continues NPWS's works in improving access to the park by creating accessible visitor infrastructure. Other projects completed and underway include:

- Wentworth Falls 2008 – direct, flat access adjacent to carpark
- Three Sisters Track 2015 – 600 m of Class 2 access
- Fairfax Track 2010 – 600 m of Class 1 access but not linked to lookouts
- Conservation Hut 2022 proposal – Class 1 access adjacent to carpark with new viewing deck
- Evans Lookout 2022 – design provides a Class 1 access with a moderate 200 m length which allows a bush experience but is manageable in length.

If the mitigation measures provided in Section 9 are adhered to, the risk of significant impact on the environment is minimal.

## 8. Description of the existing environment

Govetts Leap is located within Blackheath, New South Wales. It is situated along the sandstone ridge tops overlooking the Grose Valley. The lookout is located within the Blue Mountains National Park, which is part of the Greater Blue Mountains Area World Heritage property (UNESCO 2021). The lookout was moderately burnt during the 2019–20 bushfires. This resulted in some moderate dieback in the canopies of trees surrounding the lookout. There is still evidence of bushfire in the vegetation at the lookout, however regrowth is occurring across all strata.

Several walking tracks and lookouts are accessible from Govetts Leap Lookout, including the Fairfax Heritage Track, Popes Glenn / Pulpit Rock Track, Clifftop Track and Rodriguez Pass. This precinct is very popular with car-based visitors and escarpment walkers alike, and receives approximately 250,000 visitors per year, estimated based on annual visitors to the Blue Mountains Heritage Centre (approx. 55,000). It is the largest visitor precinct in the Blackheath area of the park. The precinct comprises the Blue Mountains Heritage Centre and Govetts Leap Lookout and provides a variety of facilities.

Blue Mountains Heritage Centre:

- NPWS museum and shop
- NPWS visitor interface
- public toilets
- interpretive area
- art space, public meeting room and theatrette
- local bus stop
- 18 parking spaces, plus 2 disabled parking spaces, plus 10 roadside spaces shared with tourist buses.

Govetts Leap Lookout:

- lookouts
- seating
- access to walking trails
- flush toilets
- picnic tables
- picnic shelters
- heritage structures
- access to drinking water
- 75 informal parking spaces.

### 8.1 Natural values

#### 8.1.1 Climate

The weather station at Farnells Road, Katoomba, is the closest Bureau of Meteorology long-term weather monitoring station to the study area.

The average summer temperature is between 10°C and 24°C. The average winter temperature is between 2.6°C and 14°C. The wettest months of the year, on average, are



February and January, and the driest months are July and August. The average rainfall for the area is approximately 1,400 mm per year (BOM 2021).

### **8.1.2 Geology, geomorphology and topography**

The underlying geology of the subject site comprises Narrabeen Group sandstones-quartz-lithic sandstones and quartz sandstones, interbedded with thin red, grey and green claystone, shale and occasional conglomerate and ironstone lenses. Small outliers of Hawkesbury sandstone occur in places (DPIE 2021b).

The topography of the study area consists of land that slopes from the south-west to north-east with an approximate 10% slope. However, to the north-east, topography consists of precipitous sandstone cliffs, often 100–200 m tall, which are formed above steep to very steep colluvial side slopes. Slope gradients are very steep and are mostly >40% becoming gentler on lower slopes and narrow drainage flats.

### **8.1.3 Soil types and properties (including contamination)**

Figure 6 presents the soil landscapes present within the study area from the soil landscapes of the Katoomba 1:100,000 sheet.

#### **Hassans Walls (hw)**

Soils are shallow on crests, less than 30 cm, comprised of discontinuous, rapidly drained lithosols/siliceous sands. Upper slopes are comprised of recently deposited talus. Soil is moderately deep, less than 80 cm, comprised of imperfectly to moderately well-drained yellow podzolic soils and brown podzolic soils. The soils' limitations include severe rock fall hazard, mine subsidence, steep slopes, extreme water erosion hazard, mass movement hazard, severe foundation hazard, rock outcrop and localised shallow soils, high run-on, noncohesive soils (localised).

#### **Medlow Bath (mb)**

Soils are moderately deep, less than 100 cm, comprised of well-draining earthy sands and yellow earths. The soils vary in depth across the landscape and are found in shallower depths of less than 60 cm in rocky outcrops. The soils' limitations include the presence of stones, acid soils of very low fertility, very high potential aluminium toxicity and moderate erodibility, localised rock outcrop and localised shallow soils.

#### **Contamination assessment**

The contamination assessment and waste classification of in situ soil (Geotechnique 2021 at Appendix F), found that fill materials within the study area are primarily of gravelly sand or silty sand, topsoil comprising silty sand and neutral soil comprising silty sand and sandstone bedrock. The study area is considered stable and unlikely to present a risk of harm to human health and/or the environment during the proposed activity. However, bezon(a)pyrene concentration was elevated around bore hole number 12 (see Geotechnique 2021 at Appendix G) which may pose a risk to terrestrial ecology. Bezon(a)pyrene has known links to causing cancer in humans and animals if ingested (Kailun et al. 2021).

Mitigation measures to minimise any potential impacts associated with soil stability and contamination are provided in Section 9.

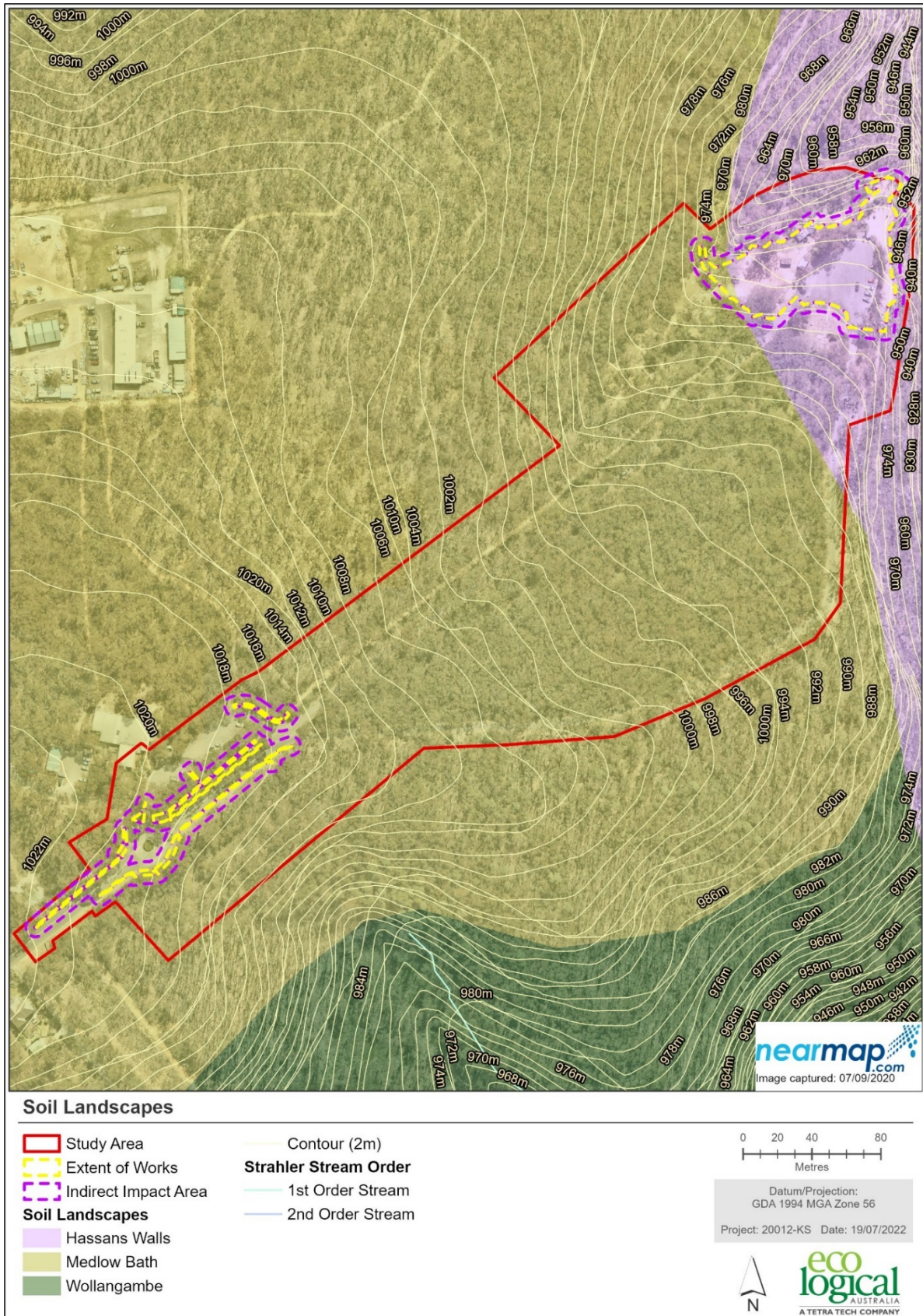


Figure 6 Soil landscapes



#### **8.1.4 Surrounding land use**

The proposed activity is entirely within national park estate and is to be completed in adherence with park management objectives. Low-density residential land uses are located approximately 50 m to the south-west of the south-western edge of the study area. In addition, the NPWS Blackheath depot is located approximately 150 m to the north of the study area and is considered an industrial land use.

The proposed activity is not anticipated to result in conflicts to surrounding land uses, subject to implementation of mitigation measures in Section 9.1.

#### **8.1.5 Watercourses, waterbodies and wetlands (including their catchment values)**

No streams mapped by Department of Primary Industries (DPI) Water (1:25,000 topographic mapping) exist within the study area. However, a mapped first order stream (Strahler classification system) is located approximately 80 m south-east of the study area. The easternmost extent of the study area is located close to a steep escarpment, with both the second order Popes Glen Creek and third order Govetts Leap Brook being located at the bottom of the steep gully to the north-east and south-east of the study area, respectively. These streams flow into Govetts Creek.

Both Govetts Leap Brook and Govetts Creek further downstream are mapped as key fish habitat. See Figure 7.

The study area is located within the Govetts Creek catchment, which is a subcatchment of the Grose River catchment. The Grose River catchment is a subcatchment of the Hawkesbury Nepean River catchment.

#### **8.1.6 Coasts and estuaries**

The site is not mapped in a coastal risk area.

#### **8.1.7 Areas of outstanding biodiversity value or critical habitat**

Areas of outstanding biodiversity value are declared under the BC Act and critical habitat under the EPBC Act. No critical habitat or areas of outstanding biodiversity value are present within the subject site.



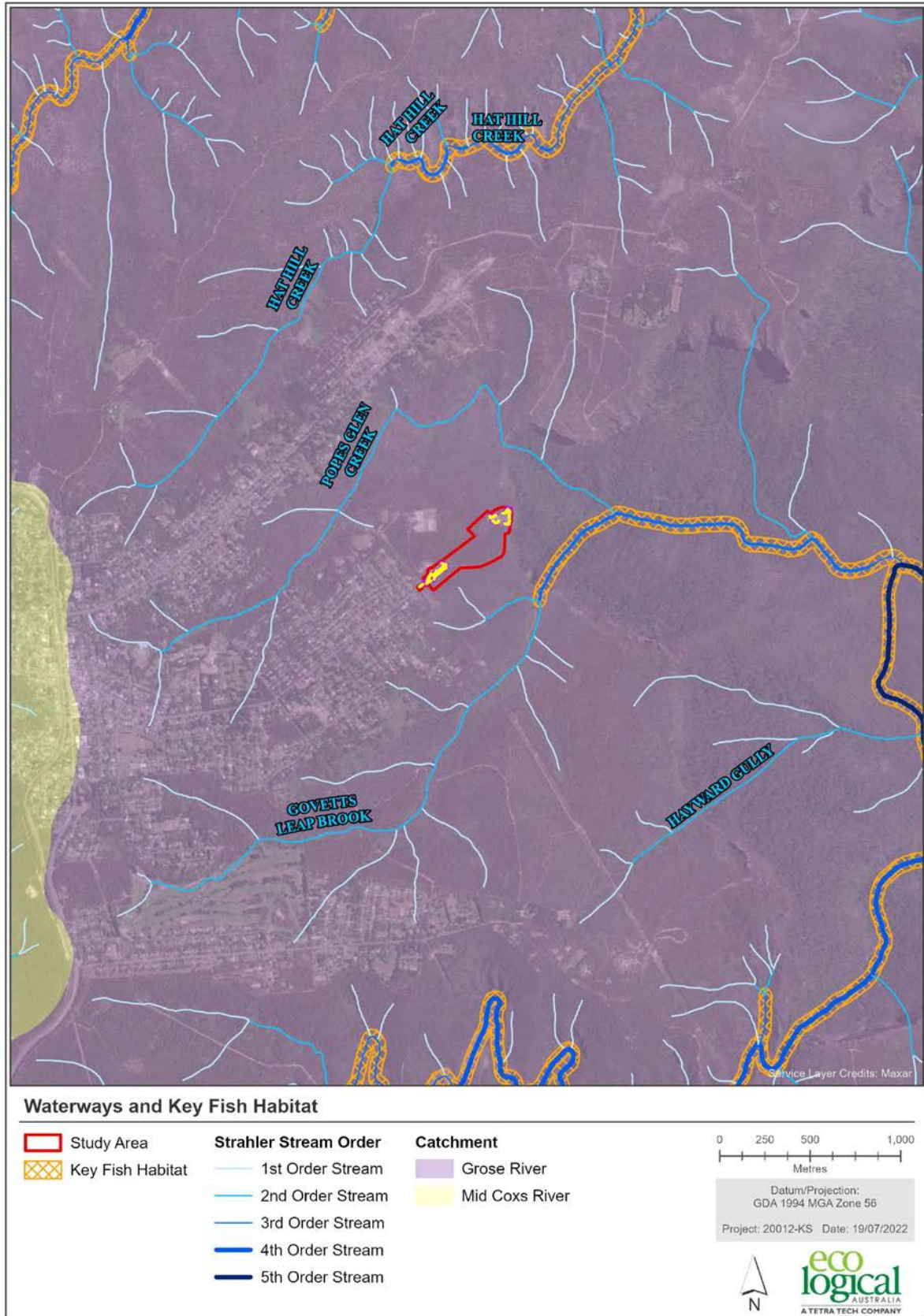


Figure 7 Waterways and key fish habitat

## 8.1.8 Vegetation

Previous vegetation mapping across the subject site mapped the following vegetation communities (Figure 8):

- Escarpment complex
- Blue Mountains sandstone plateau forest.

The remaining vegetation had not been assigned to any vegetation community.

During the field survey conducted by Eco Logical Australia (2021 at Appendix H), 3 plant community types (PCT) were validated within the study area as shown in Figure 9. The remaining vegetation was allocated to non-PCT groups 'planted native' and 'cleared/built'. The 5 vegetation types present in the study area are:

- PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the Upper Blue Mountains, Sydney Basin Bioregion
- PCT 769: Coachwood – lilly pilly warm temperate rainforest in moist sandstone gullies, Sydney Basin Bioregion
- PCT 1127: Sandstone cliff-face soak of the Sydney Basin Bioregion
- planted native
- cleared/built.

PCT 1248, PCT 769 and PCT 1127 do not form part of a threatened ecological community (TEC) under either the BC Act or the EPBC Act. A vegetation description of each PCT vegetation zone follows.

### **Pct 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the Upper Blue Mountains, Sydney Basin Bioregion**

PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the Upper Blue Mountains, Sydney Central Bioregion occurs on sandy loams on elevated sandstone plateaus of the upper Blue Mountains at altitudes of 600–1,050 m (DPE 2021a).

The occurrence of this PCT within the study area was dominated by canopy species *Eucalyptus piperita* (Sydney peppermint), *Eucalyptus sieberi* (silvertop ash) and *Eucalyptus sclerophylla* (hard-leaved scribbly gum). A smaller canopy of *Allocasuarina littoralis* (black she-oak) was also present. The mid-storey was highly diverse with native shrubs and includes *Banksia integrifolia* (coast banksia), *Banksia oblongifolia* (fern-leaved banksia), *Banksia spinulosa* (hairpin banksia), *Banksia ericifolia* (heath-leaved banksia), *Acacia elongata* (swamp wattle), *Acacia implexa* (hickory wattle), *Daviesia ulicifolia* (gorse bitter pea), *Epacris pulchella* (wallum heath), *Pultenaea setulosa* (stony bush-pea), *Kunzea ambigua* (tick bush), *Persoonia levis* (broad-leaved geebung), *Persoonia linearis* (narrow-leaved geebung), *Leptospermum trinervium* (flaky-barked tea-tree) and *Coprosma hirtella* (coffee-berry). The ground cover was also highly diverse with a mix of native grasses, forbs, orchids, sedges and climbers; species included *Gonocarpus teucrioides* (raspwort), *Phyllanthus hirtellus* (thyme spurge), *Olearia myrsinoides* (blush daisy bush), *Lomandra obliqua*, *Lomandra longifolia* (spiny-headed mat-rush), *Gahnia filifolia*, *Entolasia marginata* (bordered panic), *Acaena novae-zelandiae* (bidgee-widgee), *Goodenia dimorpha* var. *angustifolia*, *Billardiera scandens* (hairy apple berry), *Cassytha glabella*, *Euchiton sphaericus*, *Ptilothrix deusta*, *Stackhousia viminea* (slender stackhousia); and the exotic species *Cyperus eragrostis* (slender flat-sedge).

PCT 1248 is not associated with any TEC (NSW BioNet Vegetation Classification data portal, DPE 2021, accessed 11 March 2021).

Large portions of the turfed picnic area adjacent to the carpark and toilet by the lookout have been mapped as PCT 1248. This is due to the understorey having a large proportion of native ground cover and the overhanging native canopy (Figure 10).

### **Pct 769: Coachwood – lilly pilly warm temperate rainforest in moist sandstone gullies, Sydney Basin Bioregion**

PCT 769: Coachwood – lilly pilly warm temperate rainforest in moist sandstone gullies occurs in moist gully heads and sheltered slopes below sandstone cliffs and occurs in the Blue Mountains. It comprises closed forest with fern ground covers (DPIE 2021a). This PCT is not associated with any TEC (NSW BioNet Vegetation Classification data portal, DPE 2021, accessed 11 March 2021).

A small occurrence of this PCT was mapped within the north of the study area where PCT 1248 grades into PCT 769 downslope. The canopy contained *Syzygium smithii* (lilly pilly), *Eucalyptus piperita* (Sydney peppermint), *Eucalyptus sieberi* (silver ash) and a smaller canopy layer of *Dicksonia antarctica* (soft tree fern). The mid-storey was also dominated by native shrubs, *Breynia oblongifolia* (coffee bush) *Elaeocarpus reticulatus* (blueberry ash), *Callicoma serratifolia* (callicoma), and *Persoonia levis* (broad-leaved geebung). The ground cover was dominated by *Pteridium esculentum* (bracken), *Entolasia marginata* (bordered panic) and *Dianella caerulea* var. *producta* and climber *Smilax australis* (lawyer vine).

There is a possibility that the vegetation in this area is self-sown or planted on disturbed land and has recolonised the area as PCT 769. Sections of planted canopy species present within the study area consisted of trees with similar size trunk diameter which suggests that these trees were planted at a similar time. Trees were in systematic lines or in clusters and some within planting beds (Figure 11).

### **Pct 1127: Sandstone cliff-face soak of the Sydney Basin Bioregion**

PCT 1127: Sandstone cliff-face soak of the Sydney Basin Bioregion is an open moist shrub community found among sandstone waterfalls and rock faces where underground seepage maintains year-round moisture. It is widespread throughout the Sydney Basin and has been recorded along the coast and up to 1,000 m above sea level (DPIE 2021a). A complete list of species within this vegetation community could not be recorded due to the steep nature of the cliff face. However, based on the position of this vegetation within the landscape, the vegetation was assigned to PCT 1127. This PCT is not associated with any TEC (NSW BioNet Vegetation Classification data portal, DPE 2021, accessed 11 March 2021).

### **Planted**

Vegetation identified as plantings included native species which have been planted into the landscaped plantings beds around the existing carpark, shelter and restroom area. Planted species were predominantly native, including *Ceratopetalum apetalum* (coachwood), *Glochidion ferdinandi* (cheese tree), *Allocasuarina littoralis* (black sheoak) and *Pittosporum undulatum* (sweet pittosporum). The planting beds lacked a native understorey (Figure 12).

### **Cleared/built**

A small portion of the study area consists of mown grassland for the maintained picnic areas and areas surrounding the public restrooms. The mown, grassy areas are dominated by exotic ground cover species including, *Ehrharta erecta* (panic veldtgrass), *Plantago lanceolata* (plantain), *Phytolacca octandra* (inkweed), *Sporobolus africanus* (Parramatta grass), *Paspalum dilatatum* (dallis grass), *Conyza bonariensis* (flaxleaf fleabane) and *Hypochaeris radicata* (flatweed) (Figure 13). Built elements include the roads, carpark and Blue Mountains Heritage Centre.



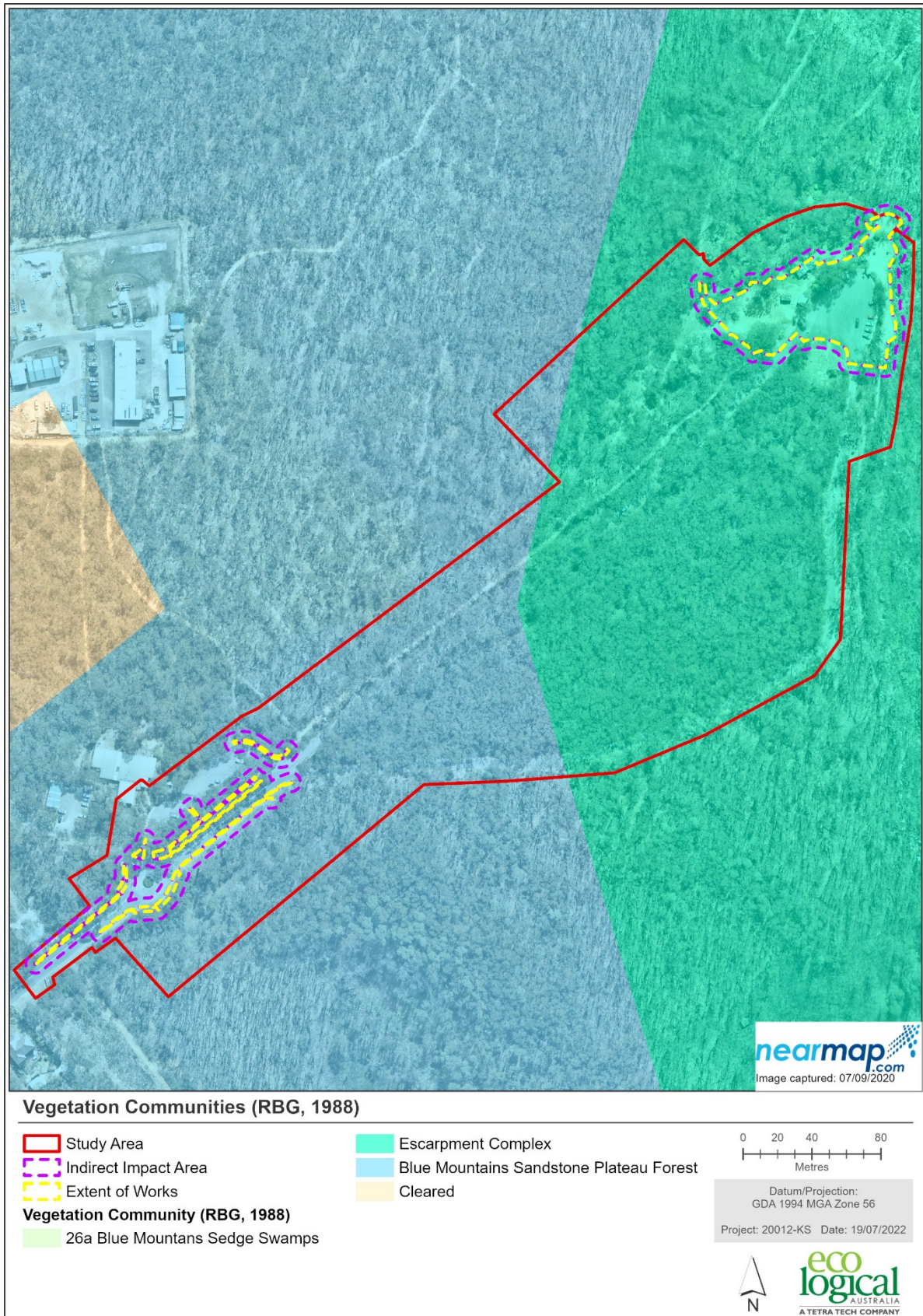


Figure 8 Previous vegetation mapping



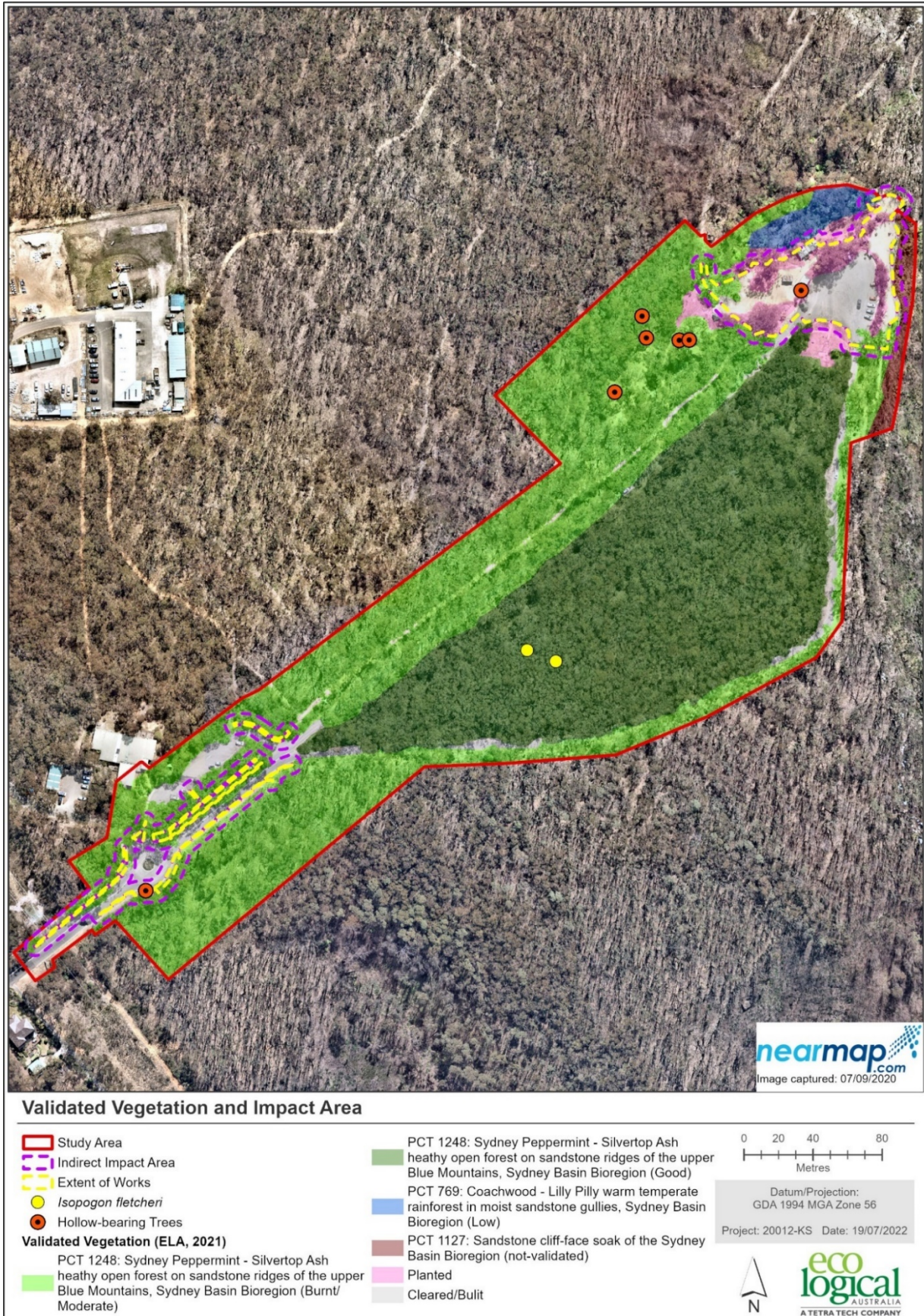


Figure 9 Vegetation within the subject site (validated by Eco Logical Australia)





**Figure 10** Vegetation within the study area identified as PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the Upper Blue Mountains, Sydney Basin Bioregion (burnt/moderate condition)



**Figure 11** Vegetation within the study area identified as PCT 769: Coachwood – lilly pilly warm temperate rainforest in moist sandstone gullies, Sydney Basin Bioregion





**Figure 12 Native plantings within the study area**



**Figure 13 Cleared / built areas within the study area**

## 8.1.9 Threatened species and populations

### Threatened flora

An environmental assessment report (ELA 2021 at Appendix H) recorded 101 flora species during the field survey. Of these, 91 were native species and 10 were exotic.

Upon undertaking a NSW BioNet and EPBC Protected Matters Search Tool search, it was determined that 25 threatened flora species and 4 threatened vegetation communities either have been recorded, or had the potential to occur, within a 5 km radius of the study area. Figure 14 shows the BioNet records for threatened flora within a 5 km radius of the study area.

By undertaking a likelihood of occurrence assessment, it was determined that only one of the species was likely to occur. This threatened flora species, *Isopogon fletcheri*, was confirmed as being present within the study area during the site inspection.

A full list of flora species recorded within the study area sites is provided in Appendix H.

### Threatened fauna

No fauna species recorded during the survey (Appendix H) are listed as having conservation significance. As mentioned, a BioNet and EPBC Protected Matters Search Tool search was undertaken. Through this search, it was determined that 46 fauna species either have been recorded, or had the potential to occur, within a 5 km radius of the study area. Figure 14 shows the BioNet records for threatened fauna within a 5 km radius of the study area.

None of these species are considered likely to occur within the study area. The area lacked any large hollow-bearing trees or rocky outcroppings that could be used as roosting or nesting habitat for some of the listed species. There are 7 hollow-bearing trees with 3 medium-sized and 4 small hollows. There were also 2 stick nests or dreys observed in one tree within the direct impact area. However, it is likely that any of the listed species would utilise the expansive areas of wilderness near the study area as opposed to the 0.42 ha of vegetation to be impacted by the proposed activity. There is potential for species that are highly mobile to pass through the vegetation within the subject site, however the proposed works are considered unlikely to impact them.

The subject site is located in a local government area (LGA) in which the *Koala Habitat Protection SEPP* applies (Blue Mountains LGA), however as the proposed activity is being assessed under Part 5 of the EP&A Act, the SEPP does not apply. The SEPP only applies to local development under Part 4 of the EP&A Act.

\*Please note in 2021 the *State Environmental Planning Policy (Koala Habitat Protection) 2021* was repealed and replaced with *State Environmental Planning Policy (Biodiversity and Conservation) 2021*.



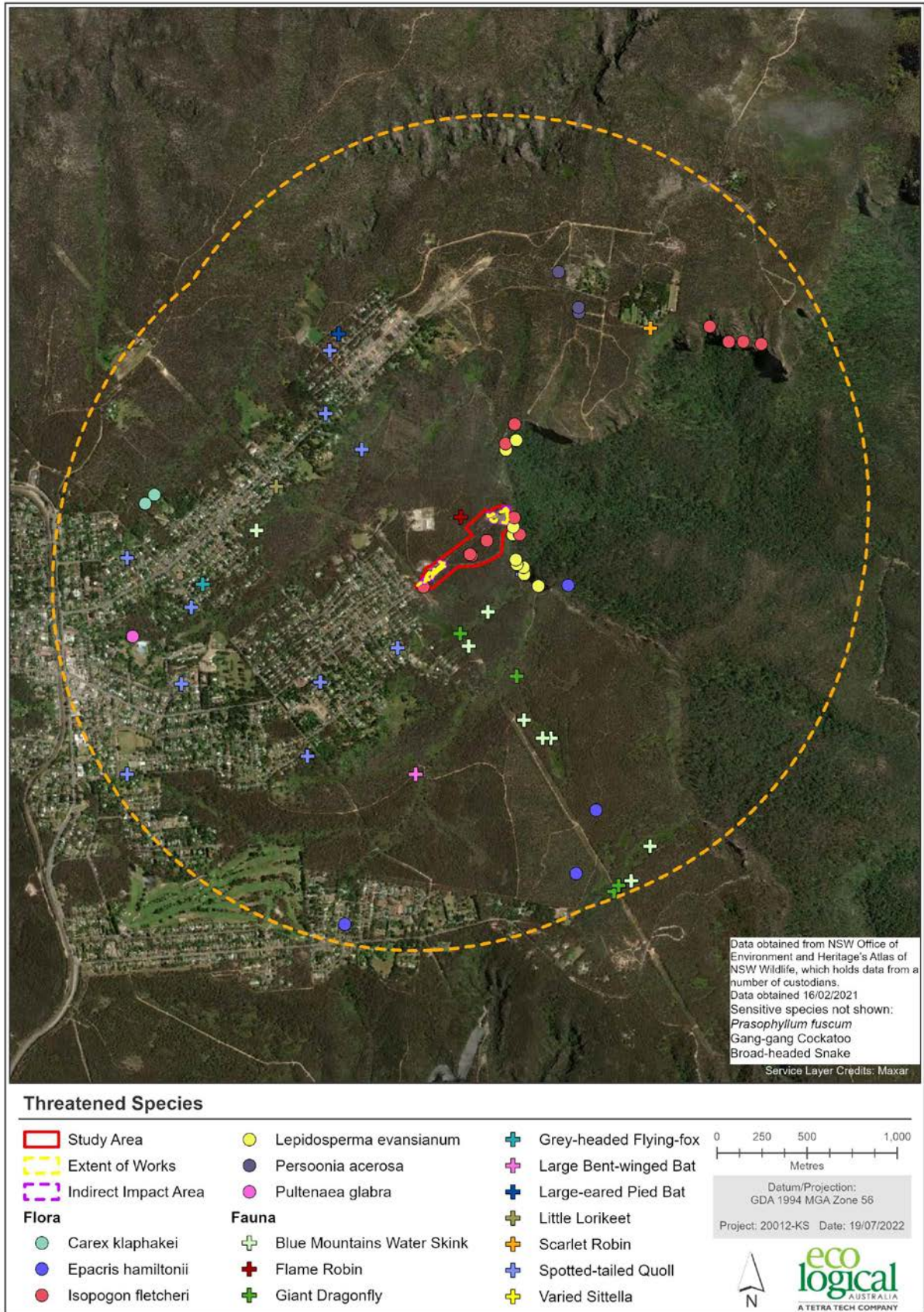


Figure 14 NSW BioNet Wildlife Atlas search results for threatened species within a 5 km radius of the subject site



## 8.2 Cultural values

### 8.2.1 Aboriginal cultural heritage

An Aboriginal heritage due diligence assessment has been undertaken for the proposed activity (ELA 2021 at Appendix I) in accordance with the *Due diligence code of practice for the protection of Aboriginal objects in New South Wales* (DECCW 2010).

The aims of the Aboriginal heritage due diligence assessment were to:

- Undertake a search of the Aboriginal Heritage Information Management System (AHIMS) register maintained by Heritage NSW, Department of Premier and Cabinet, to establish if there are any previously recorded Aboriginal objects or places within the study area.
- Undertake a search of the *Blue Mountains Local Environmental Plan 2015* (Blue Mountains LEP, Schedule 5, Environmental Heritage), the NSW State Heritage Register and the Australian Heritage Database in order to determine if there are any sites of archaeological significance or sensitivity located within the study area.
- Undertake a desktop review of relevant previous archaeological assessments to understand the local archaeological context and assist in predicting the likely occurrence of unrecorded archaeological sites or objects.
- Undertake a site inspection to identify any Aboriginal sites and areas of sensitive landforms.
- Prepare an Aboriginal heritage due diligence assessment report determining if known objects or additional unrecorded objects are present within the study area, as well indicate whether further assessment is required.

#### Database searches

Searches of the Australian Heritage Database, the State Heritage Register and the Blue Mountains LEP were undertaken on 15 June 2021 to determine if any places of Aboriginal significance are located within the study area. No Aboriginal archaeological sites or heritage items with Aboriginal significance are located within the study area.

#### AHIMS database search

An extensive search of AHIMS was undertaken on 11 June 2021. The search was conducted within the following search parameters: eastings from 242161 to 260161 and northings from 6265754 to 6283754, which represented the study area and 9 km surrounding the study area. The search resulted in the identification of 111 registered Aboriginal sites and one Aboriginal place. The frequencies of site types recorded within the AHIMS database search area are listed in Table 2.

**Table 2 Aboriginal Heritage Information Management System frequencies of site types within 9 km radius of the study area**

Site features	Number	%
Artefact	35	32.1
Aboriginal resource and gathering	1	0.9
Aboriginal resource and gathering, art (pigment or engraved)	2	1.8
Aboriginal resource and gathering, artefact	6	8.3

Site features	Number	%
Aboriginal resource and gathering, art (pigment or engraved), artefact	3	2.75
Aboriginal resource and gathering, art (pigment or engraved), artefact, hearth	2	1.8
Aboriginal resource and gathering, artefact, grinding groove	1	0.9
Art (pigment or engraved)	4	3.7
Art (pigment or engraved); artefact, pad	1	0.9
Art (pigment or engraved), artefact	1	0.9
Art (pigment or engraved), grinding groove	4	3.7
Artefact, modified tree (carved or scarred)	1	0.9
Artefact, grinding groove	3	2.75
Artefact, potential archaeological deposit (PAD)	1	0.9
Grinding groove	23	21.1
Grinding groove, water hole	4	2.75
Habitation structure	2	1.8
Habitation structure, PAD, modified tree	1	0.9
Habitation structure, PAD	5	4.6
Modified tree (carved or scarred)	5	4.6
Ochre quarry	1	0.9
Stone arrangement	1	0.9
Water hole	2	1.8
<b>Total</b>	<b>109</b>	<b>100</b>

No Aboriginal sites were identified within the study area. Two restricted sites have been recorded as being within the vicinity of the study area, AHIMS ID (45-4-1051) and AHIMS ID (45-4-1055), bringing the total number of sites to 109. These sites will not be impacted by the proposed works.

### Previous archaeological investigations

Few archaeological investigations have been undertaken in the Blue Mountains region as most of the region encompasses the World Heritage-listed Blue Mountains National Park and development/activities requiring surveys does not occur very often. Some of the key findings within the wider Blue Mountains region are summarised below.

NGH undertook a heritage constraints assessment of Govetts Leap Lookout (NGH 2020). This assessment found that the general Blue Mountains region holds a high level of archaeological sensitivity, with the sandstone mountain formations providing cliff faces and rock shelters suitable for habitation within an environment rich in natural resources. It was discussed that while there have been many archaeological studies across the region, the majority of these studies have been development-driven and therefore limited in area, or desktop-based and not involving extensive survey.

The constraints assessment concluded that the Govetts Leap Lookout falls within an archaeologically sensitive landscape, being on an elevated ridgeline system and within 200 m of a water source. Due to this proximity to water and the elevated location on a sandstone ridgeline, they recommended that it will be necessary for further Aboriginal

heritage investigations to be undertaken before any ground disturbing works could occur. The level of further assessment required will be largely determined based on the footprint of proposed ground disturbances.

Comber Consultants undertook an archaeological assessment of the Forty Bends section of the Great Western Highway between Mount Victoria and Lithgow (Comber Consultants 2012). The proposed upgrades covered an area of 20.4 km, 2.8 km of which covered the Forty Bends study area. An initial survey of the entire study area identified 45 archaeological sites and 20 potential archaeological deposits (PADs), with 9 of the PADs located within the Forty Bends area. Eight of these PADs were tested, with 3 artefacts being recovered from PAD 12 out of 72 test pits. The artefacts were considered to be of low archaeological significance as they were not found to be representative of an artefact scatter. However, the site was registered on AHIMS and recommendations included that an Aboriginal heritage impact permit be sought in order to proceed with the upgrade.

### Visual inspection and recommendations

A visual inspection of Govetts Leap was undertaken by ELA Archaeologist Declan Coman on 27 August 2021 which did not identify any new Aboriginal objects. Vast areas of significant disturbance were observed across the study area in relation to existing roads, a carpark, historical features, and visitor amenities.

In the north of the study area the construction of park buildings and a partially sealed carpark has caused a high level of ground disturbance, the clearing of land and construction of walking trails and signage has caused more minor disturbances to the landform.

Towards the centre of the study area, 2 sealed roads run through the central part of the study area, the northern road leading into the carpark and the southern road leading back out to the main road in the south-west. At the edge of the road corridor, more extensive drainage works were observed and exposed the soil profile of the study area. The yellow sandy earths observed were consistent with the description of the Medlow Bath soil profile.

In the centre of the study area a large area of bushland sits between the 2 roads. This area of bushland was identified as undisturbed with only negligible impacts from a shallow, man-made drainage line being observed.

In the south of the study area the construction of a carpark and buildings for the Heritage Centre have disturbed ground surfaces. These disturbances extend along the sealed road surfaces to the south-western extent of the study area.

The proposed upgrades to Govetts Leap Lookout are located within previously highly disturbed landforms and will avoid impacts to areas of Aboriginal sensitivity.

No Aboriginal sites or places of national, state or local cultural value were identified within the study area. The study area is situated within the World Heritage Greater Blue Mountains Area which is also identified as National Heritage under the EPBC Act, universally valued for its exceptional biodiversity. The Greater Blue Mountains Area is listed as an example of significant ongoing ecological and biological processes in the evolution and development of ecosystems and communities of plants and animals (criterion II), particularly eucalypt-dominated ecosystems; and important and significant natural habitats for in situ conservation of biological diversity (criterion IV), including the eucalypts and eucalypt-dominated communities, primitive species with Gondwanan affinities such as the Wollemi pine (*Wollemia nobilis*), and a diversity of rare or threatened plants and animals of conservation significance.



## 8.2.2 Historic heritage values

A statement of heritage impacts to determine the potential impacts of the proposed activity on the heritage of Govetts Leap has been prepared (ELA 2021 at Appendix J). The following is a summary of the assessment.

Searches of the Australian Heritage Database, National Heritage List, World Heritage List, State Heritage Register and Blue Mountains LEP using the terms 'Blackheath/Blue Mountains' were conducted on 15 June 2021 in order to determine if there are any historical heritage items within the study area.

Govetts Lookout is located within the heritage curtilage of the following heritage items listed on the Blue Mountains LEP:

- Govetts Leap Lookout (BH 025)
- Govetts Leap to Pulpit Rock Track (BH103)
- Govetts Leap Popes Glen Memorial Park Track (BH 104)
- Govetts Leap Lookout Bottom of Bridal Veil Falls Track (BH 106)
- Govetts Leap Lookout to Top of Bridal Veil Falls (BH 113)
- Govetts Leap to Evans Lookout Track (BH 115).

The NPWS heritage database includes several items within Govetts Leap including:

- Memorial – item ID 3794
- Wishing well – item ID 3795
- Stone arch – item ID 3796
- Stone toilet blocks – item ID 3784 and 3785
- Stone retaining walls – item ID 3787 and item ID 3793
- Garden bed – item ID 3788
- Drinking fountains – item ID 3797
- Picnic shelter 2 – item ID 3789
- Picnic shelter 3 – item ID 3790
- Shelter – item ID 3791.

Other statutory listings include:

- Greater Blue Mountains Area, listed on the National Heritage List (Place ID 105999)
- Greater Blue Mountains Area, listed on the World Heritage List (Place ID 105127)
- Blue Mountains Walking Tracks, listed on the State Heritage Register (item 00980).

Non-statutory listings:

- The Blue Mountains are listed in the Register of the National Estate (Place ID 832).

### Historical background

Govetts Leap and associated geological features were recorded in 1831 by William Romaine Govett, NSW Assistant Surveyor working under Surveyor General Thomas Mitchell. By the 1870s train travel made day trips to the Blue Mountains possible and Govetts Leap was promoted as one of the first detailed in a tourist guide of the area. Govetts Leap Reserve was set aside for public recreation in 1879 and the area of the lookout has been heavily modified since. Lookouts and tracks were established in the Govetts Leap area during the 1880s, in 1882 a stone shelter was constructed and by 1899 a track had been completed to the base of the cliff at Govetts Leap. Govetts Leap Road was originally a straight track from Blackheath train station to the lookout which was widened and turned into a loop road in

1898. By the 1920s motor cars made travel even easier and lookouts and tracks were upgraded to accommodate the influx of visitors. Many of the elements surviving in the study area, particularly those constructed of locally sourced stone, date to the 1930s and may have been the result of Depression Era relief labour schemes. Numerous upgrades to facilities have been undertaken over time to cater for an improved visitor experience. NPWS took over management of Blue Mountains National Park in 1971.

Please see the statement of heritage impacts (Appendix J) for detailed historical development of the Blue Mountains, the study area, and its tracks.

## Physical description

There are several built elements within the study area, including the Blue Mountains Heritage Centre, picnic shelters, amenities, stone features, retaining walls, roads, paths, parking, street furniture, lighting and signage.

The Blue Mountains Heritage Centre, located on Govetts Leap Road, was constructed in 1986 and provides visitor information. It is a simple skillion-form stone and concrete building mostly obscured by trees (Figure 15). Carparking and a bus stop are associated with it.

There are 3 stone picnic shelters within the study area. Two are square, 3 m x 3 m stone shelters with stone walls up to 1.2 m constructed on a concrete slab in the secondary gravel carpark west of Govetts Leap Road. The roofs are a timber framed pyramidal structure with timber slats. There is a steel cap placed on the apex. One picnic shelter is rectangular, 3.5 m x 5 m, constructed from stone on a concrete base. It is divided into 2 parts, each being 2.5 m in width with arched windows and solid rear wall. The roof is a timber frame lean-to with metal sheet cladding. The 3 picnic shelters contain timber table and seating and are placed to view the bushland and gardens. There is an additional shelter which faces the carpark with associated garden bed and retaining wall. This is a rectangular structure, 3 m x 5 m, and is enclosed on 3 sides. It has simple timber benching around the 3 internal walls and appears to be a waiting room for groups or a previous bus stop (Figure 16, Figure 17, Figure 18).

The viewing platform is located on the cliff edge at the end of the road providing views of the escarpment and valley to the west, north and east (Figure 19). It comprises a semicircular level area bounded by a low stone wall that separates the parking area from the pedestrian area. A stone arch with concrete ramp provides entry to the viewing platform which has a level gravel surface. A stone wishing well and memorial are located within the gravel paved area and tubular steel fencing is installed as a safety barrier (Figure 20). Major upgrades to the lookout were made in the 1920s and 1930s.

The heritage curtilage is unclear. Govetts Leap is part of complex listed on the State Heritage Register titled 'Blue Mountains Walking Tracks' which covers 37 walking tracks (SHR item 00980). The current mapping near Govetts Leap includes the 'Govetts Leap Junction Rock Track' and 'Govetts Leap Access Walking Track' and several small unnamed areas, however none of these are the 37 tracks included in the Blue Mountains Walking Tracks listing. In addition, Govetts Leap is included in the description of 'Grose Valley Cliff Edge Complex' which is one of the 37 tracks, however the track is not included in the State Heritage Register mapping. The walking tracks conservation management plan (Smith et al. 2006) does not include mapping of the tracks and the recent heritage assessment (GML 2021) does not include discussion or mapping of a heritage curtilage for Govetts Leap.

The State Heritage Register listing for the 37 tracks states that the curtilage of the Blue Mountains Walking Tracks is limited to land within the national park only, and includes the walking track only and not surrounding vegetation. Section 3.5 of the conservation management plan (Smith et al. 2006), however, states the curtilage of a walking track includes all of the elements beyond the track itself that contribute to the historical, aesthetic,

scientific/research and social values of the track, and its associations with persons of importance in the history of New South Wales.

Discussion with the NPWS Heritage Team confirmed that much of the northern part of the study area is included in the State Heritage Register listing. The map has yet to be updated on the State Heritage Inventory, however a curtilage for the Govetts Leap area has been supplied by Heritage NSW (Figure 21). The heritage curtilage of Govetts Leap includes the viewing platform, both carparks, amenities, picnic shelters, wishing well, stone archway, memorial, parts of the picnic areas and parts of some tracks.



Figure 15 Heritage Centre and road to Govetts Leap



Figure 16 Entrance view to Govetts Leap parking area, picnic shelters and amenities





**Figure 17** Picnic shelter, and ironstone wall at picnic area



**Figure 18** Picnic shelters, shelter and modern toilets adjacent to carpark



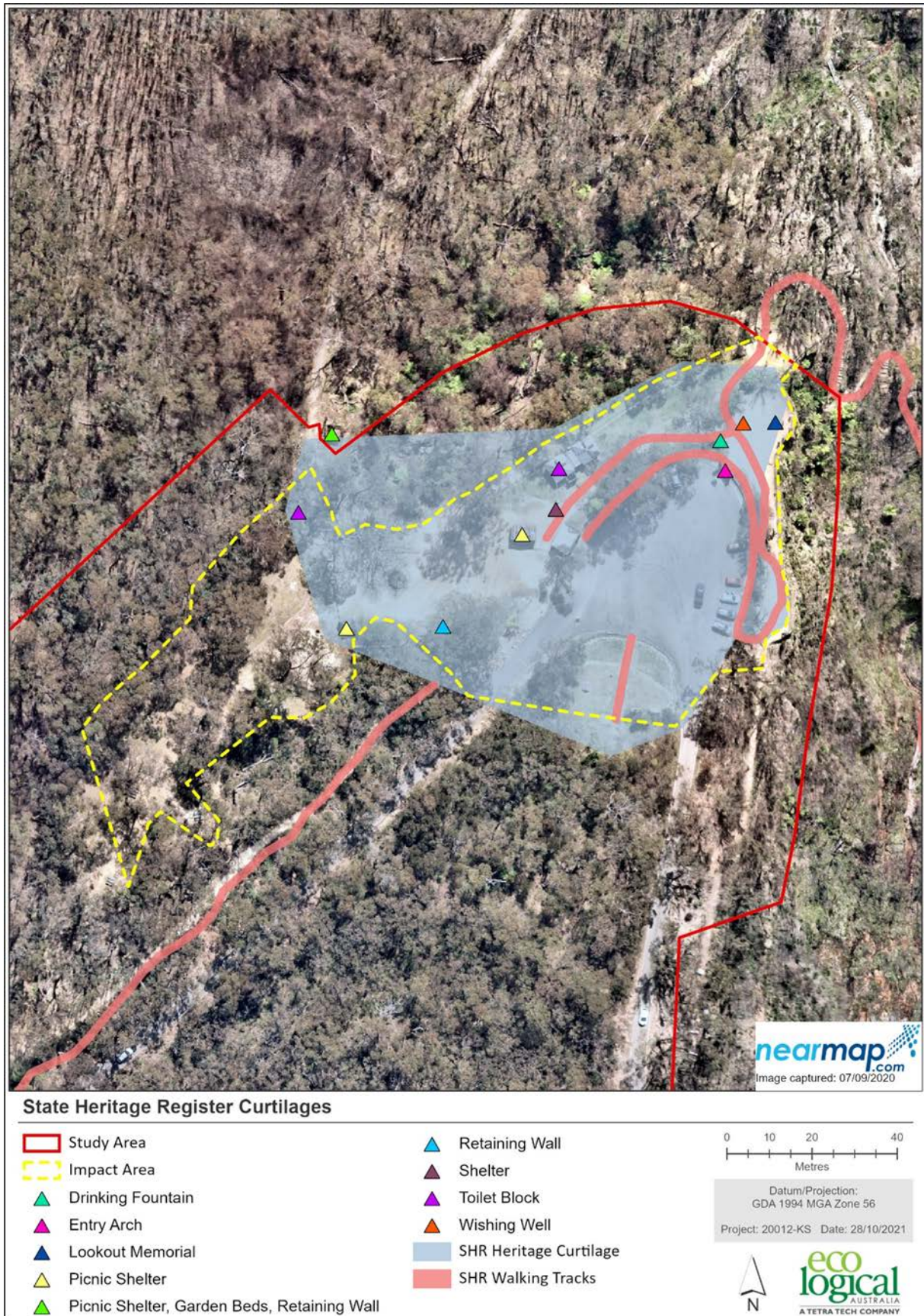


**Figure 19** View from Govetts Leap



**Figure 20** The stone arch entry to the viewing platform and wishing well





**Figure 21 Curtilage of the proposed State Heritage Register listing (as supplied by Heritage NSW) in blue overlaid with listed walking tracks in pink**



## 8.3 Social values

### 8.3.1 Recreation values

The Blue Mountains National Park is a popular destination for tourism and outdoor recreation because of its proximity to Sydney and the townships of the Blue Mountains as well as its outstanding natural features. The park is particularly well known for its scenic lookouts, walking tracks and opportunities for wilderness recreation and adventure activities.

The proposed upgrades to the study area will enhance visitor amenity and increase usability of the adjacent sections of the park; and allow for visitors to gain an enhanced appreciation for the scenic, natural and cultural heritage values of the park.

### 8.3.2 Scenic and visually significant areas

The subject site is not mapped as 'Protected Area – Escarpment' under the Blue Mountains LEP.

### 8.3.3 Education and scientific values

The park and its regional setting within a larger natural area offers an outstanding range of research opportunities in relatively close proximity to the highest concentration of research institutions in Australia. Its combination of wilderness and World Heritage areas adjoining extensive urban, rural and natural boundaries provide a research setting unique in New South Wales. Several pristine catchments within the park could provide important reference areas for scientific study, particularly when so many of the park's other major catchments are affected by external impacts associated with urban and rural development.

### 8.3.4 Interests of external stakeholders

The study area is located entirely within the park. Approximately 50 m to the south-west of the study area is low-density residential land uses. There are no lease holders in proximity to the study area. The area is used by locals and visitors for recreational purposes.

## 8.4 Matters of national environmental significance

There are 10 matters of national environmental significance (MNES) relevant to the study area, including the Greater Blue Mountains World Heritage area and the following 9 threatened species listed on the EPBC Act:

- *Isopogon fletcheri* (Fletcher's drumsticks)
- *Persoonia acerosa* (needle geebung)
- *Pultenaea glabra* (smooth bush-pea)
- *Heleioporus australiacus* (giant burrowing frog)
- *Pteropus poliocephalus* (grey-headed flying-fox)
- *Hirundapus caudacutus* (white-throated needle-tail)
- *Chalinolobus dwyeri* (large-eared pied bat)
- *Dasyurus maculatus maculatus* (spotted-tailed quoll)
- *Hoplocephalus bungaroides* (broad-headed snake).

The Greater Blue Mountains Area is listed as both a World Heritage property and a National Heritage place.

The impacts of the proposed works are minor and are not considered likely to have a significant impact on any MNES.



## 9. Impact assessment

### 9.1 Physical and chemical impacts during construction and operation

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
<p>1. Is the proposal likely to impact on soil quality or land stability?</p> <p>Applicable?</p> <p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>Low (short-term)</p>	<p>The proposed activity will require the removal of vegetation and excavation of rock and soil to undertake the works.</p> <p>Potential impacts regarding soil and erosion include erosion and sediment runoff, weed invasion and soil compaction. However, such impacts are only likely to occur during the construction phase and within the direct impact area.</p> <p>A geotechnical investigation was undertaken (Appendix D and E). The investigation found that the existing residual soil and bedrock across the study area is suitable as foundation materials for the construction. Fill is able to utilised subject to the implementation of mitigation measures.</p>	<ul style="list-style-type: none"> <li>• Prepare a construction environmental management plan (CEMP) prior to any construction works to address measures to be adopted to minimise impacts on the environment as a result of the construction works, including erosion and sedimentation.</li> <li>• Inspect erosion controls regularly (daily during workdays) and after significant rainfall. Fix damaged controls immediately. Remove accumulated sediment or waste material from within the sediment controls regularly.</li> <li>• Ensure only the minimum required vegetation is removed, maintaining the ground cover vegetation, where possible, in all areas of work.</li> <li>• Leave erosion and sediment controls in place until after the works are completed.</li> <li>• Schedule the work outside of predicted heavy rain periods.</li> <li>• Stop work during and after heavy rainfall to reduce risk of mobilising sediment.</li> <li>• Recommendations in the geotechnical investigation (Appendix D and E) are to be incorporated into the design and construction, including:                         <ul style="list-style-type: none"> <li>○ appropriate compaction and layering of fill</li> <li>○ installation of recommended footings</li> <li>○ paving design recommendations.</li> </ul> </li> </ul>

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
<p>2. Is the activity likely to affect a waterbody, watercourse, wetland or natural drainage system?</p> <p>Applicable?</p> <p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>Low</p>	<p>No watercourses mapped by DPI Water (Hydroline Data) exist within the study area. However, a mapped first order watercourse (Strahler classification system) is located approximately 80 m south-east of the study area. Despite the distance located away from the watercourses, there is still potential for the watercourse to be impacted by the temporary construction works from:</p> <ul style="list-style-type: none"> <li>• excess sediment input into the waterway</li> <li>• pollution of the waterway (groundwater or surface water) from chemical spills (e.g. fuel, oil, construction materials)</li> <li>• the dissolution and leaching of hydration products of cement can affect the pH value of ground and surface water. Increased pH of groundwater can be expected around the surface of concrete but is not expected to penetrate far into the groundwater matrix. This may impact the growth of native vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement sediment and silt control measures (mainly silt fencing/trapping and clean water diversions etc.) prior to commencement of works according to: <ul style="list-style-type: none"> <li>○ <i>Erosion and sediment control on unsealed tracks</i> (OEH 2012)</li> <li>○ <i>Managing urban stormwater: soils and construction - volume 1, 4th edition</i> (Landcom 2004, also known as the 'blue book')</li> <li>○ <i>Managing urban stormwater, soils and construction, volume 2A – installation of services</i> (DECC 2008).</li> </ul> </li> <li>• Regular monitoring of sediment controls as well as inspections after heavy rainfall and follow-up work to repair/install erosion and sedimentation controls.</li> <li>• Weather forecasts will be checked daily to ensure that work is not carried out immediately before or during high rainfall.</li> <li>• Store all chemicals in appropriate bunding/storage systems.</li> <li>• Ensure appropriate spill kits, shovels and buckets are carried with the equipment, and if a small spill occurs quickly shovel the contaminated dirt into the bucket and dispose of appropriately.</li> <li>• Wash all equipment, including erosion and sediment control measures and trailers to prevent spread of exotic species. A visual check for vegetation and seeds on all equipment machinery to be used in the activities must be carried out before work commences.</li> <li>• To minimise the impact of concrete on changing pH of water the concrete is to be in situ off-form and not blast or exposed aggregate to reduce potential degradation of concrete surface. No use of crushed concrete in construction or drainage aggregates.</li> <li>• Pathway/lookout drainage flows away from escarpment edge and joins carpark storm water drainage prior to exiting site with energy dissipator.</li> </ul>

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
3. Is the activity likely to change flood or tidal regimes, or be affected by flooding? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	N/A	N/A
4. Is the activity likely to affect coastal processes and coastal hazards, including those projected by climate change (e.g. sea level rise)? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	N/A	N/A
5. Does the activity involve the use, storage, or transport of hazardous substances or the use or generation of chemicals, which may build up residues in the environment? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low	The NSW Environment Protection Authority's contaminated land record of notice was checked for known contaminated land or potential contamination risk using keywords 'Blackheath' and 'Blue Mountains City Council'. The search produced no known contamination issues located within or in proximity to the subject site (EPA 2021). Nonetheless, there remains a low probability that unknown contamination sources are present.  Use of hazardous chemicals will be required to undertake the works. Chemicals such as fuel and oil for the running of machinery will	<ul style="list-style-type: none"> <li>• Store all chemicals (e.g. fuel, oil) in appropriate bunding/storage systems.</li> <li>• Ensure appropriate spill kits are carried with the equipment.</li> <li>• Dedicated refuelling areas are to be established away from creek lines. These areas are to be bunded to ensure any spills do not enter the riparian vegetation areas.</li> <li>• Should fill materials at and in the vicinity of bore hole (BH) 12 need to be retained on site, it is recommended to carry out an environmental risk assessment by an appropriately qualified contaminated land professional.</li> <li>• BH12 is to be fenced off to block public from accessing the location.</li> </ul>



Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
		<p>be used. Herbicides may also be used when maintaining vegetation.</p> <p>The contamination assessment and waste classification of in-situ soil (Appendix F), found that bezon(a)pyrene concentration was elevated around bore hole (BH) 12 (see Appendix G) which may pose a risk to terrestrial ecology as it has the potential to cause cancer if ingested.</p>	
<p>6. Does the activity involve the generation or disposal of gaseous, liquid or solid wastes or emissions? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Low</p>	<p>The majority of waste is likely to be generated from demolition of the existing structures and pathways, vegetation removal, excess spoil from earthworks and general waste from staff and contractors. Potential impacts from waste generation include:</p> <ul style="list-style-type: none"> <li>• reduced aesthetics within the park</li> <li>• minor spills from hazardous fuel and chemical use</li> <li>• pollution of the environment from other general wastes.</li> </ul> <p>The contamination and waste classification (Appendix F) classified the existing topsoil and natural soil as general solid waste. The bitumen surface layer in the carpark was classified as hazardous waste and must be disposed of at a licensed waste disposal facility.</p> <p>Minor emissions are anticipated due to the use of construction machinery and vehicles. However, are thought to be negligible and short-term.</p> <p>Removal and appropriate disposal of general waste generated by the contractors during the</p>	<ul style="list-style-type: none"> <li>• Resource management options for the project must be considered against a hierarchy of the following order embodied in the <i>Waste Avoidance and Resource Recovery Act 2001</i>. <ul style="list-style-type: none"> <li>○ avoid unnecessary resource consumption</li> <li>○ recover resources (including reuse, reprocessing, recycling and energy recovery)</li> <li>○ dispose (as a last resort).</li> </ul> </li> <li>• All wastes must be classified in accordance with the <i>Waste classification guidelines</i> (EPA 2014) prior to disposal and transportation to a licensed waste disposal facility.</li> <li>• All waste must be removed from each site on completion of the works.</li> <li>• Upon completion of waste disposal, all original weighbridge/disposal receipts issued by the receiving waste facility must be retained in a waste register as evidence of proper disposal.</li> <li>• An adequate number of bins must be placed at the sites for workers and all litter will be placed in these bins. Work areas of the project site will be kept clean and free of litter. All waste and rubbish is to be secured.</li> </ul>

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
		<p>proposed activity is the responsibility of the contractors.</p>	<ul style="list-style-type: none"> <li>• Plant and equipment must be regularly inspected to ascertain that fitted emission controls are operating efficiently.</li> <li>• Plant and equipment must be maintained in accordance with manufacturer’s specifications to ensure that it is in a proper and efficient condition.</li> <li>• Do not have machinery running while not in use.</li> <li>• Minimise use of machinery for required activity only.</li> </ul>
<p>7. Will the activity involve the emission of dust, odours, noise, vibration or radiation in the proximity of residential or urban areas or other sensitive locations? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Low</p>	<p>Minor dust emissions are predicted as part of the proposed activity. The subject site is located entirely within the park and approximately 50 m from the nearest residential property. Therefore, there is potential to impact ‘sensitive receivers’. Dust, noise and vibration emissions may impact local residents. However, the majority of works are to be completed in the opposite end of the study area approximately 600 m away from receivers. Any impacts are expected to be short-term and minor.</p> <p>As impacts are associated with construction only and not operation, they are anticipated to be minimal and short term.</p> <p>The proposed activity may also have indirect noise and vibration impacts on threatened fauna and may deter threatened species from the subject site, though this impact will be negligible and short term.</p>	<ul style="list-style-type: none"> <li>• The below mitigation measures are developed in reference to the ‘Qualitative assessment method’ section of the <i>Interim construction noise guideline</i> (DECC 2009):             <ul style="list-style-type: none"> <li>○ Avoid simultaneous operation of noisy plant where feasible.</li> <li>○ Works will only occur during the following times:                 <ul style="list-style-type: none"> <li>– Monday to Friday 7 am to 5 pm</li> </ul> </li> <li>○ Plant used intermittently is to be throttled or shut down when not required.</li> <li>○ Maintain a noise and vibration complaints log. Complete 3-step process in section 5.1 ‘Qualitative assessment method’ of the <i>Interim construction noise guideline</i> (DECC 2009).</li> </ul> </li> <li>• Works must be minimised during high wind periods.</li> <li>• Dust suppression should be applied as required to limit excessive dust generation. Water will be the only material used for this purpose.</li> <li>• Vehicles should be operated at an appropriate speed.</li> <li>• Maximise the distance between noisy plant items and potential fauna habitat.</li> </ul>

## 9.2 Biodiversity impacts during construction and operation

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
<p>1. Is any vegetation to be cleared or modified? (includes vegetation of conservation significance or cultural landscape value)</p> <p>Applicable?</p> <p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>Low</p>	<p>Approximately 0.078 ha of native vegetation will be directly impacted by the proposed activity and 0.348 ha will indirectly impacted (Figure 9).</p> <p>None of the vegetation to be impacted forms part of threatened ecological community.</p> <p>Table 3 (at the end of this section) outlines how each vegetation type will be impacted.</p>	<ul style="list-style-type: none"> <li>• The extent of vegetation impacts should be marked out with delineated 'no-go' zones', fenced with 1,800 mm high protection fencing and impacts should be minimised where possible.</li> <li>• The site-specific CEMP must include instructions for dealing with orphaned or injured native animals and include the contact details for the NSW Wildlife Information, Rescue and Education Service Inc (WIRES). Measures should include the following:             <ul style="list-style-type: none"> <li>○ If fauna is found on the construction site during construction works, stop work – all native fauna is protected.</li> <li>○ Do not touch the animal, wait for it to leave.</li> <li>○ If injured fauna is found, an ecologist or NPWS Officer is to relocate the animal to the nearest local vet or call WIRES or a rescue agency.</li> <li>○ If a threatened fauna species is identified, stop works and notify NPWS immediately.</li> </ul> </li> <li>• For areas that will have vegetation removed, vegetation removal should be undertaken by using hand tools or climbing arborists and chainsaws where required. The crown of any canopy trees should first be removed followed by the eventual de-limbing of the tree. Using hand tools and arborists rather than large machinery will reduce the risk of accidental collateral damage to areas that are not to be impacted. Large limbs and trunks of felled trees should be reused as fauna habitat within the subject site. Leaves and smaller branches should be mulched and reused on site for any revegetation works. If any trees are suspected to be infected by pathogens such as <i>Phytophthora cinnamomi</i>, materials from these trees</li> </ul>



Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
2. Is the activity likely to have a significant effect on threatened flora species, populations, or their habitats, or area of outstanding biodiversity value (refer to threatened species assessment of significance (5-part test))?	Low	<p>The proposed activity is considered unlikely to have a significant impact on any of the threatened flora that have been recorded, or have the potential to occur, within a 5 km radius of the subject site.</p> <p>The subject site lacks suitable habitat for several of the listed threatened flora species. Threatened species <i>Isopogon fletcheri</i> was observed during the field survey as such it is considered that the study area could provide</p>	<p>should not be reused on site but removed from site and disposed of at a licensed waste facility. This is to prevent any potential pathogens from spreading.</p> <ul style="list-style-type: none"> <li>• Revegetation efforts should be undertaken for areas that will be impacted. Species that are used for revegetation should be representative of the surrounding vegetation community.</li> <li>• Prior to vegetation removal, areas that contain exotic species should be treated to prevent the further spread of said species. Weed species should be removed using hand tools where possible. If herbicide is required, a product that readily breaks down in the environment should be used. Weed propagules should be collected and disposed of at a licensed waste facility.</li> <li>• Before and after vegetation clearing, all equipment and personal protective equipment (PPE) should be washed down and de-seeded to prevent the spread of any exotic species and pathogens within and out of the subject site.</li> <li>• Site personnel should be familiar with hygiene guidelines for wildlife (EES 2020) around mitigating the impacts of environmental pathogens. Protocols include daily washdown of equipment and machinery after work to minimise any spread of pathogenic material and to ensure all equipment used on site is clean prior to use.</li> </ul> <p>• For areas that will have vegetation removed, vegetation removal should be undertaken by using hand tools or climbing arborists and chainsaws where required. The crown of any canopy trees should first be removed followed by the eventual de-limbing of the tree. Using hand tools and arborists rather than large machinery will reduce the risk of accidental collateral damage to areas that are not to be impacted.</p> <ul style="list-style-type: none"> <li>• Large limbs and trunks of felled trees should be reused as fauna habitat within the subject site. Leaves and smaller</li> </ul>

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		suitable habitat for it. However the specimens were not located within the direct or indirect impact area so will not be affected by the proposed works. Suitable habitat for more individuals of <i>Isopogon fletcheri</i> exists within the direct and indirect impact areas, therefore a test of significance (5-part test under the BC Act) and assessment of significance (under the EPBC Act) were carried out. It was concluded that there would be no significant impacts to this species.	branches should be mulched and reused on site for any revegetation works. If any trees are suspected to infected by pathogens such as <i>Phytophthora cinnamomi</i> , materials from these trees should not be reused on site but removed from site and disposed of at a licensed waste facility. This is to prevent any potential pathogens from spreading. <ul style="list-style-type: none"> <li>• Revegetation efforts should be undertaken for areas that will be impacted. Species that are used for revegetation should be representative of the surrounding vegetation community.</li> <li>• Prior to vegetation removal, areas that contain exotic species should be treated to prevent the further spread of said species. Weed species should be removed using hand tools where possible. If herbicide is required, a product that readily breaks down in the environment should be used. Weed propagules should be collected and disposed of at a licensed waste facility.</li> <li>• Before and after vegetation clearing, all equipment and PPE should be washed down and de-seeded to prevent the spread of any exotic species and pathogens within and outside of the subject site</li> <li>• Site personnel should be familiar with hygiene guidelines for wildlife (EES 2020) around mitigating the impacts of environmental pathogens. Protocols include daily washdown of equipment and machinery after work to minimise any spread of pathogenic material and to ensure all equipment used on site is clean prior to use.</li> </ul>
3. Does the activity have the potential to endanger, displace or disturb fauna (including fauna of conservation significance) or create a barrier to their movement?	Low	It is unlikely that the proposed activity will result in injuring, displacing, disturbing or creating a barrier for movement of fauna species. As mentioned, the study area contains few habitat features for any fauna species.  The proposed activity may remove or trim important feed trees for threatened species	<ul style="list-style-type: none"> <li>• The site-specific CEMP must include instructions for dealing with orphaned or injured native animals and include the contact details for the NSW WIRES. Measure should include the following:</li> </ul>

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
<p>Applicable?</p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p>		<p>such as the <i>Cercartetus nanus</i> (eastern pygmy-possum) which relies heavily on <i>Banksia ericifolia</i> for foraging.</p> <p>At most, the subject site could act as marginal foraging habitat for a highly mobile species that happens to be passing through during clearing activities.</p> <p>During the field survey, only common highly mobile avian species were observed within the study area. Species such as these are likely to disperse if clearing works are being undertaken.</p>	<ul style="list-style-type: none"> <li>○ If fauna is found on the construction site during construction works, stop work – all native fauna is protected.</li> <li>○ Do not touch the animal, wait for it to leave.</li> <li>○ If injured fauna is found, an ecologist or NPWS Officer is to relocate the animal to the nearest local vet or call WIRES or a rescue agency.</li> <li>○ If a threatened fauna species is identified, stop works and notify NPWS immediately.</li> <li>● To avoid unnecessary impacts to the fauna that may nest within tree 31 (as identified in the arboricultural impact assessment at Appendix K) a pre-clearance survey should be carried out before the tree is removed. The pre-clearance survey should be carried out by a qualified ecologist and determine the presence or activity of any fauna using the tree. A method should then be determined to safely relocate the fauna.</li> <li>● <i>Banksia ericifolia</i> is an important feed tree for the eastern pygmy-possum. It is preferable to remove outer branches of <i>Banksia ericifolia</i> rather than the entire tree. Any <i>Banksia ericifolia</i> which requires removal must be inspected to ensure no fauna is present in hollows or nests. Hand tools are preferred to maintain vegetation.</li> <li>● Works are not to take place during night-time in order to prevent impacts to <i>Ninox connivens</i> (barking owl), <i>Ninox strenua</i> (powerful owl), <i>Tyto tenebricosa</i> (sooty owl) during key foraging times.</li> </ul>
<p>4. Is the activity likely to have a significant effect on threatened fauna species, or their habitats, or areas of outstanding biodiversity value (refer to</p>	<p>Low</p>	<p>Tests of significance (5-part test) were undertaken for the following fauna species:</p> <ul style="list-style-type: none"> <li>● <i>Heleioporus australiacus</i> (giant burrowing frog)</li> <li>● <i>Pseudophryne australis</i> (red-crowned toadlet)</li> </ul>	<ul style="list-style-type: none"> <li>● The extent of vegetation impacts should be marked out with delineated 'no-go' zones', fenced with 1,800 mm high protection fencing and impacts on vegetation minimised where possible.</li> <li>● The site-specific CEMP must include instructions for dealing with orphaned or injured native animals and</li> </ul>



Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
threatened species assessment of significance (5-part test)? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<ul style="list-style-type: none"> <li>• <i>Callocephalon fimbriatum</i> (gang-gang cockatoo)</li> <li>• <i>Calyptorhynchus lathamii</i> (glossy black-cockatoo)</li> <li>• <i>Daphoenositta chrysoptera</i> (varied sittella)</li> <li>• <i>Glossopsitta pusilla</i> (little lorikeet)</li> <li>• <i>Petroica boodang</i> (scarlet robin)</li> <li>• <i>Ninox connivens</i> (barking owl)</li> <li>• <i>Ninox strenua</i> (powerful owl)</li> <li>• <i>Tyto tenebricosa</i> (sooty owl)</li> <li>• <i>Cercartetus nanus</i> (eastern pygmy-possum)</li> <li>• <i>Miniopterus orianae oceanensis</i> (large bent-winged bat)</li> <li>• <i>Chalinolobus dwyeri</i> (large-eared pied bat)</li> <li>• <i>Pteropus poliocephalus</i> (grey-headed flying-fox)</li> <li>• <i>Dasyurus maculatus maculatus</i> (spotted-tailed quoll)</li> <li>• <i>Hoplocephalus bungaroides</i> (broad-headed snake).</li> </ul> <p>The proposed works will remove a small area of habitat for the above listed species, however, this is considered negligible in comparison to the large areas of adjacent habitat retained within the park. It was determined that the proposed works are unlikely to have a significant impact on any threatened fauna species.</p> <p>Common peri-urban species could pass through the study area during clearing works, though this is considered unlikely due to the noise.</p>	<p>include the contact details for the NSW WIRES. Measure should include the following:</p> <ul style="list-style-type: none"> <li>○ If fauna is found on the construction site during construction works, stop work – all native fauna is protected.</li> <li>○ Do not touch the animal, wait for it to leave.</li> <li>○ If injured fauna is found, an ecologist or NPWS Officer is to relocate the animal to the nearest local vet or call WIRES or a rescue agency.</li> <li>○ If a threatened fauna species is identified, stop works and notify NPWS immediately.</li> </ul> <ul style="list-style-type: none"> <li>• To avoid unnecessary impacts to the fauna that may nest within tree 31 (as identified in Appendix K) a pre-clearance survey should be carried out before the tree is removed. The pre-clearance survey should be carried out by a qualified ecologist and determine the presence or activity of any fauna using the tree. A method should then be determined to safely relocate the fauna.</li> <li>• <i>Banksia ericifolia</i> is an important feed tree for the eastern pygmy-possum. It is preferable to remove outer branches of <i>Banksia ericifolia</i> rather than the entire tree. Any <i>Banksia ericifolia</i> which requires removal must be inspected to ensure no fauna is present in hollows or nests. Hand tools are preferred to maintain vegetation.</li> <li>• Works are not to take place during night-time in order to prevent impacts to powerful owl, sooty owl and barking owl during key foraging times.</li> </ul>

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
5. Is the activity likely to impact on an ecological community of conservation significance? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Low	No threatened ecological communities will be impacted by the proposed works.	N/A
6. Is the activity likely to have a significant effect on an endangered ecological community or its habitat (refer to threatened species assessment of significance (5-part test))? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	No threatened ecological communities will be impacted by the proposed works.	N/A
7. Is the activity likely to cause a threat to the biological diversity or ecological integrity of an ecological community? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Low	No threatened ecological communities will be impacted by the proposed works.	N/A
8. Is the activity likely to introduce noxious weeds, vermin, feral species or	Low	The removal and maintenance of vegetation will result in increased light and disturbance, potentially supporting weed infestations.	<ul style="list-style-type: none"> <li>Clean equipment and vehicles prior to and after use (where relevant), to manage the introduction and spread of weed propagules.</li> </ul>

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
genetically modified organisms into an area? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		However, it is noted that all disturbed areas are to be revegetated. Movement of workers and machinery have the potential to facilitate the spread of priority weeds through the study area. Several weed species are already located within the areas that will be impacted by the proposed activity, as such the recommended mitigation measures should be implemented to reduce the risk of their spread.	<ul style="list-style-type: none"> <li>The site-specific CEMP should include measures to reduce the spread of weeds, identify the weed species present on site and how best to treat them.</li> <li>The <i>NSW Weed control handbook</i> (DPI 2018) should also be reviewed.</li> </ul>
9. Is the activity likely to affect any declared area of outstanding biodiversity value? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	No. No areas within the study area are listed areas of outstanding biodiversity value.	N/A
10. Is the activity likely to affect any joint management agreement under the BC Act? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	N//A	N/A



**Table 3 Summary of proposed impacts on native vegetation**

Vegetation	Direct impact area (ha)	Indirect impact area (ha)	Total impact area (ha)
PCT 1127: Sandstone cliff-face soak of the Sydney Basin Bioregion (not-validated)	0.001	0.025	0.026
PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the upper Blue Mountains, Sydney Basin Bioregion (Burnt/Moderate)	0.076	0.307	0.383
PCT 1248: Sydney peppermint – silvertop ash heathy open forest on sandstone ridges of the upper Blue Mountains, Sydney Basin Bioregion (Good)	0.000	0.004	0.004
PCT 769: Coachwood – lilly pilly warm temperate rainforest in moist sandstone gullies, Sydney Basin Bioregion (Low)	0.001	0.012	0.013
<b>Total</b>	<b>0.078</b>	<b>0.348</b>	<b>0.426</b>

### 9.3 Community impacts during construction and operation

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
1. Is the activity likely to affect community services or infrastructure? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Low (during construction) / Positive	During construction, the carpark and some roads will require closures, however pedestrian access to walking tracks will be retained.	<ul style="list-style-type: none"> <li>Prepare a traffic management plan to ensure ongoing access and safety for pedestrians during construction.</li> </ul>
2. Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low (during construction) / Positive	During construction, the carpark and some roads will require closures, however pedestrian access to walking tracks will be retained.  The proposed upgrades to the visitor precinct will provide increased amenity and accessibility for recreational users of the area and the associated walking tracks.	<ul style="list-style-type: none"> <li>Prepare a traffic management plan to ensure ongoing access and safety for pedestrians during construction.</li> </ul>
3. Is the activity likely to affect economic factors, including employment, industry and property value? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Low (during construction) / Positive	During construction there is expected to be minor disruptions to local businesses that are run within the Blackheath area due to a reduction in available visitor infrastructure, however there are a wide range of other visitor infrastructure in the local area that can be used alternatively to attract visitors to the area.  Operationally the proposed upgrades to the visitor precinct will provide increased amenity for recreational users and are anticipated to increase visitation to the area.	N/A

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
4. Is the activity likely to have an impact on the safety of the community? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low (during construction) / Positive (during operation)	During construction the carpark and facilities will be closed to the public, however access to walking tracks will be retained.  Use of heavy machinery and vehicle movement may result in a slight risk to public safety, however this will be mitigated if the appropriate mitigation measures are adhered to.	<ul style="list-style-type: none"> <li>• Prepare a traffic management plan to ensue ongoing access and safety for pedestrians during construction.</li> <li>• Vehicles, materials and equipment must be positioned to minimise impacts to public access.</li> <li>• Heavy vehicles will be restricted to specified routes.</li> <li>• Appropriate signage must be erected in order to control pedestrian access during the works. Temporary signage will be placed prior to works commencing.</li> <li>• Signage must be removed following construction.</li> <li>• NPWS will advise the public of the temporary closures via the NPWS website.</li> <li>• Machinery left on site overnight will be kept behind security fencing.</li> </ul>
5. Is the activity likely to cause a bushfire risk? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low (during construction)	The risk of a bushfire as a result of the proposed works is considered low. However, a bushfire may occur due to improper use of machinery or negligent behaviour by contractors.	<ul style="list-style-type: none"> <li>• Smoking is prohibited within all national parks.</li> <li>• Hot works are not permitted on days of 'very high' fire danger rating or above.</li> <li>• Ignition minimisation should be practised at all times.</li> <li>• Ignition suppression equipment should be available at all times.</li> </ul>



Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
<p>6. Will the activity affect the visual or scenic landscape?</p> <p>This should include consideration of any permanent or temporary signage (e.g. signs advertising an event and related sponsorship).</p> <p>Applicable?</p> <p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	Low	<p>The proposed activity will occur within native vegetation within the park. However, impacts to native vegetation are only proposed within proximity of areas previously utilised for visitor infrastructure which will minimise the impact to visual amenity within the broader environment.</p> <p>The proposed activity will involve minor earthworks to facilitate the new carpark and access to lookouts.</p> <p>Any signage to be placed to delineate works areas will be removed following construction. Additionally, construction fencing will be required to exclude the public from the construction area.</p>	<ul style="list-style-type: none"> <li>• All work areas are to be completely removed of rubbish, excessive spoil and other waste materials upon completion of works.</li> <li>• All signage, delineation fencing, and sediment and erosion controls are to be removed upon completion of works.</li> <li>• The proposed amenities are to be designed in accordance with the NPWS <i>Parks facilities manual</i> (NPWS 2016a) and <i>Parks signage manual</i> (NPWS 2016b).</li> <li>• New tourism signage will be in accordance with Transport for NSW requirements.</li> </ul>
<p>7. Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?</p> <p>Applicable?</p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p>	N/A	N/A	N/A

## 9.4 Natural resource impacts during construction and operation

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
1. Is the activity likely to result in the degradation of the park or any other area reserved for conservation purposes? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low	The proposed works will result in minor impacts to vegetation within the national park. The direct impact areas have generally been previously degraded or cleared to some extent as a result of the existing lookout and carpark areas.  Approximately 0.078 ha of native vegetation will be directly impacted by the proposed activity and 0.348 ha will indirectly impacted (Table 3 and Figure 9). No additional impacts or ongoing degradation will occur as a result of the works.	<ul style="list-style-type: none"> <li>• See measures in Section 9.1.</li> <li>• The extent of vegetation maintenance must be marked-out with delineated 'no-go' zones', fenced with 1,800 mm high temporary fencing and minimised where possible.</li> <li>• Implement measures outlined in arboricultural impact assessment (Appendix K).</li> </ul>
2. Is the activity likely to affect the use of, or the community's ability to use, natural resources? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Low	Reduction in carparking capacity from 95 to 56 may increase on-street parking and vehicle movements on Govetts Leap Road and surrounding streets. NPWS is actively pursuing additional budgets to provide new additional carparking adjacent to the Blue Mountains Heritage Centre entrance.	<ul style="list-style-type: none"> <li>• Future works to provide additional parking.</li> </ul>

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
<p>3. Is the activity likely to involve the use, wastage, destruction or depletion of natural resources including water, fuels, timber or extractive materials? This should include opportunities to utilise recycled or alternative products. Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	N/A	N/A	N/A
<p>4. Does the activity provide for the sustainable and efficient use of water and energy? Where relevant to the proposal, this should include consideration of high efficiency fittings, appliances, insulation, lighting, rainwater tanks, hot water and electricity supply. Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	N/A	All works undertaken will be in accordance with the NPWS <i>Park facilities manual</i> (NPWS 2016a). All other works will achieve asset upgrades to modern engineering standards to meet 50–100 year life cycle.	N/A



## 9.5 Aboriginal cultural heritage impacts during construction and operation

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
1. Will the activity disturb the ground surface or any culturally modified trees? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low	The proposed works will include the removal and trimming of vegetation, as well as disturbance to the ground surface through excavation. There are no recorded Aboriginal sites, including culturally modified trees, within the impact areas.	<ul style="list-style-type: none"> <li>• All contractors undertaking earthworks on site should be briefed on the protection of Aboriginal heritage objects under the NPW Act, and the penalties for damage to these items.</li> <li>• If there are any changes to the proposed works, further assessment of Aboriginal heritage is required.</li> <li>• Should an unexpected Aboriginal object be identified during construction, work in the immediate vicinity of the find is to stop and the area must be fenced off with suitable markers (star pickets, flagging or barrier mesh). Engage an archaeologist to determine the significance of the find, and if required, determine the notification, consultation and approval requirements. In the highly unlikely event human remains are discovered during excavation, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, NPWS may also be contacted at this time to assist in determining appropriate management.</li> <li>• No excavation outside approved works area.</li> </ul>
2. Does the activity affect known Aboriginal objects or Aboriginal places? Include all known sources of information on the likely presence of Aboriginal objects or places, including AHIMS search results. Applicable?	N/A	No Aboriginal sites were identified as being within the study area.	N/A

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  3. Is the activity located within, or will it affect, areas: <ul style="list-style-type: none"> <li>• within 200m of waters</li> <li>• within a sand dune system</li> <li>• on a ridge top, ridge line or headland</li> <li>• within 200m below or above a cliff face</li> <li>• within 20m of or in a cave, rock shelter or a cave mouth?</li> </ul> Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low	The study area is located on a ridge top and cliff face, which are defined by the <i>Due diligence code of practice for the protection of Aboriginal objects in New South Wales</i> (DECCW 2010) as 'landscape features that are likely to contain Aboriginal objects'. However, the visual inspection assessed the vast majority of study area as disturbed and unlikely to contain Aboriginal objects. However, there is potential for unexpected Aboriginal objects to be impacted.	<ul style="list-style-type: none"> <li>• All contractors undertaking earthworks on site should be briefed on the protection of Aboriginal heritage objects under the NPW Act, and the penalties for damage to these items</li> <li>• If there are any changes to the proposed works, further assessment of Aboriginal heritage is required.</li> <li>• Should an unexpected Aboriginal object be identified during construction, work in the immediate vicinity of the find is to stop and the area must be fenced off with suitable markers (star pickets, flagging or barrier mesh). Engage an archaeologist to determine the significance of the find, and if required, determine the notification, consultation and approval requirements. In the highly unlikely event human remains are discovered during excavation, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, NPWS may also be contacted at this time to assist in determining appropriate management.</li> <li>• No excavation outside approved works area.</li> </ul>
4. If Aboriginal objects or landscape features are present, can impacts be avoided? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Negligible	No known Aboriginal objects will be impacted as a result of the proposed activity, however as sensitive landscape features have been identified there is potential for unexpected Aboriginal objects to be impacted.	<ul style="list-style-type: none"> <li>• All contractors undertaking earthworks on site should be briefed on the protection of Aboriginal heritage objects under the NPW Act, and the penalties for damage to these items.</li> <li>• If there are any changes to the proposed works, further assessment of Aboriginal heritage is required.</li> <li>• Should an unexpected Aboriginal object be identified during construction, work in the immediate vicinity of the find is to stop and the area must be fenced off with suitable markers (star pickets, flagging or barrier mesh). Engage an archaeologist to determine the significance of</li> </ul>

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
<p>5. If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	Low	<p>A visual inspection of Govetts Leap was undertaken by ELA Archaeologist Declan Coman on 27 August 2021 which did not identify any Aboriginal objects. Some areas of disturbance were observed across portions of the study area in relation to existing roads, a carpark, historical features and visitor amenities. The visual inspection assessed areas of exposed sandstone within the study area and trees that are proposed to be impacted by the proposed activity and identified no modified trees, grinding grooves or art sites.</p>	<p>the find, and if required, determine the notification, consultation and approval requirements. In the highly unlikely event human remains are discovered during excavation, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, NPWS may also be contacted at this time to assist in determining appropriate management.</p> <ul style="list-style-type: none"> <li>• No excavation outside approved works area.</li> <li>• All contractors undertaking earthworks on site should be briefed on the protection of Aboriginal heritage objects under the NPW Act, and the penalties for damage to these items</li> <li>• If there are any changes to the proposed works, further assessment of Aboriginal heritage is required.</li> <li>• Should an unexpected Aboriginal object be identified during construction, work in the immediate vicinity of the find is to stop and the area must be fenced off with suitable markers (star pickets, flagging or barrier mesh). Engage an archaeologist to determine the significance of the find, and if required, determine the notification, consultation and approval requirements. In the highly unlikely event human remains are discovered during excavation, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, NPWS may also be contacted at this time to assist in determining appropriate management</li> <li>• No excavation outside approved works area.</li> </ul>
<p>6. Is the activity likely to affect wild resources or access to these resources, which are</p>	N/A	<p>There will be no significant impact to wild resources or access to these resources which are used or valued by the Aboriginal community.</p>	N/A



Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
used or valued by the Aboriginal community? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

## 9.6 Other cultural heritage impacts during construction or operation

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
<p>1. What is the impact on places, buildings, landscapes or moveable heritage items? Attach relevant supporting information where required, such as a heritage impact statement. Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Negligible / maintenance</p>	<p>The study area is located within the park and is within the vicinity of the following heritage items:</p> <ul style="list-style-type: none"> <li>Blue Mountains LEP 2015 contains 6 listings of walking tracks and lookouts of local significance</li> <li>NPWS heritage database includes 10 items within Govetts Leap</li> <li>Govetts Leap is part of complex listed on the State Heritage Register titled 'Blue Mountains Walking Tracks' which covers 37 walking tracks (SHR item 00980)</li> <li>the Greater Blue Mountains Area was inscribed on the World Heritage List in 2000 in recognition of its significant natural values</li> <li>the Blue Mountains is also listed in the Register of the National Estate (Place ID 832), a non-statutory listing.</li> </ul> <p>The proposal was found to have a positive impact on the heritage significance of Govetts Leap as it provides improved access to a wider range of visitors which will increase appreciation and promote the importance of the geology, views, history and natural and World Heritage values of the Blue Mountains. The proposed upgrades are minor in scope and will not detrimentally impact significant heritage items, archaeological sites or views.</p>	<ul style="list-style-type: none"> <li>Implement an unexpected finds policy in accordance with the statement of heritage impacts (Appendix J).</li> <li>Comply with conditions of the section 60 <i>Heritage Act 1977</i> approval (Heritage NSW 2022 at Appendix L).</li> </ul>

Is the proposed activity likely to... Applicable?	Likely impact	Reasons	Safeguards/mitigation measures
2. Is any vegetation of cultural landscape value likely to be affected (e.g. gardens and settings, introduced exotic species, or evidence of broader remnant land uses)? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A	No vegetation of cultural landscape value is likely to be affected by the proposed works.	N/A

## 9.7 Matters of national environmental significance under the EPBC Act

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
1. Listed threatened species or ecological communities? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Negligible	The following threatened species listed under the EPBC Act may be impacted by the proposal: <ul style="list-style-type: none"> <li>• <i>Isopogon fletcheri</i> (Fletcher’s drumsticks)</li> <li>• <i>Persoonia acerosa</i> (needle geebung)</li> <li>• <i>Pultenaea glabra</i> (smooth bush-pea)</li> <li>• <i>Heleioporus australiacus</i> (giant burrowing frog)</li> <li>• <i>Pteropus poliocephalus</i> (grey-headed flying-fox)</li> <li>• <i>Hirundapus caudacutus</i> (white-throated needletail)</li> <li>• <i>Chalinolobus dwyeri</i> (large-eared pied bat)</li> <li>• <i>Dasyurus maculatus maculatus</i> (spotted-tailed quoll)</li> <li>• <i>Hoplocephalus bungaroides</i> (broad-headed snake)</li> </ul>	N/A



Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
		<p>Application of the significant impact criteria determined that the proposed works are unlikely to have a significant impact on the above listed threatened species.</p> <p>No species or vegetation communities listed under the EPBC Act are considered to be impacted by the proposed activity. Assessments of significance are provided in environmental assessment report (Appendix H).</p>	
<p>2. Listed migratory species? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Low</p>	<p><i>Hirundapus caudacutus</i> (white-throated needletail) is a migratory species and is considered likely to utilise the subject site as foraging habitat or breeding habitat.</p> <p>In eastern Australia, the white-throated needletail is recorded in all coastal regions of Queensland and New South Wales, extending inland to the western slopes of the Great Dividing Range and occasionally onto the adjacent inland plains (DAWE 2021). The proposed action will impact suitable habitat for this species. However, this is unlikely to lead to a long-term decrease in the size of an important population of this species given that similar habitat is available adjacent to the study area and records of this species (22) are known from within 5 km of the study area. The proposed activity is considered unlikely to impact any such species.</p>	<p>N/A</p>
<p>3. The ecology of Ramsar wetlands? Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>4. Commonwealth marine environment</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>

Is the proposed activity likely to... Applicable?	Impact level	Reasons	Safeguards/mitigation measures
Applicable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
5. World Heritage values of World Heritage properties? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low	The Greater Blue Mountains Area is a World Heritage-listed property. The proposed activity will impact an area of approximately 0.553 ha. Considering the Greater Blue Mountains World Heritage Area spans approximately 1.03 million ha (UNESCO 2021), the proposed impacts will affect approximately 0.0001% of this area.	<ul style="list-style-type: none"> <li>• See Section 9.2.</li> </ul>
6. The national heritage values of national heritage places? Applicable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Low	The Greater Blue Mountains area is listed on the National Heritage List (Place ID 105999). The area of the proposed activity impact area is 0.553 ha. Considering the Greater Blue Mountains World Heritage area spans approximately 1.03 million ha (UNESCO 2021), the proposed impacts will affect approximately 0.0001% of this area.	<ul style="list-style-type: none"> <li>• See Section 9.2.</li> </ul>

## **10. Proposals requiring additional information**

Under the *Guidelines for preparing a review of environmental factors*, no additional information is required.



## 11. Threatened species test of significance (BC Act)

Threatened species and ecological communities, or their habitats, which are likely to be affected by the activity must be identified and considered in the REF.

The factors set out in s 7.3 of the BC Act are used to decide whether there is likely to be a significant effect on threatened species, ecological communities or their habitats. These are known as the threatened species test of significance or '5-part test'.

Tests of significance were conducted for the following species listed under the BC Act:

- *Isopogon fletcheri* (Fletcher's drumsticks)
- *Persoonia acerosa* (needle geebung)
- *Pultenaea glabra* (smooth bush-pea)
- *Heleioporus australiacus* (giant burrowing frog)
- *Pseudophryne australis* (red-crowned toadlet)
- *Callocephalon fimbriatum* (gang-gang cockatoo)
- *Calyptorhynchus lathamii* (glossy black-cockatoo)
- *Daphoenositta chrysoptera* (varied sittella)
- *Glossopsitta pusilla* (little lorikeet)
- *Petroica boodang* (scarlet robin)
- *Ninox connivens* (barking owl)
- *Ninox strenua* (powerful owl)
- *Tyto tenebricosa* (sooty owl)
- *Cercartetus nanus* (eastern pygmy-possum)
- *Miniopterus orianae oceanensis* (large bent-winged bat)
- *Chalinolobus dwyeri* (large-eared pied bat)
- *Pteropus poliocephalus* (grey-headed flying-fox)
- *Dasyurus maculatus maculatus* (spotted-tailed quoll)
- *Hoplocephalus bungaroides* (broad-headed snake)
- *Pteropus poliocephalus* (grey-headed flying-fox).

It was determined that the proposed works are unlikely to have a significant impact on any species listed under the BC Act. The assessments are provided in Appendix H.

## 12. Summary of impacts and conclusions

Category of impact	Significance of impacts		
	Extent of impact	Nature of impact	Sensitive features
Physical and chemical	Low	<p>The majority of the potential issues relate to potential for erosion and sediment runoff during the construction phase. There is also the potential for accidental pollution of waterways from chemical spills. Vegetation clearing also has the potential to increase weed invasion and soil compaction unless appropriate mitigation measures are implemented.</p> <p>The proposed activity also has the potential to create minor dust emissions and noise and vibration associated impacts.</p>	<ul style="list-style-type: none"> <li>Threatened species habitat and native vegetation.</li> <li>Watercourses and aquatic habitat, these are located 80 m outside of the study area.</li> </ul>
Biological	Low	<p>The impact to native vegetation is approximately 0.426 ha. This includes 0.078 ha of direct impacts through vegetation removal and 0.348 ha of indirect impacts through accidental trampling of vegetation, sediment erosion and the spreading of exotic species.</p> <p>Tests and assessments of significance under the BC Act and EPBC Act were undertaken for threatened fauna that have the potential to occur within the study area. It was determined that the proposed activity is unlikely to result in a significant impact to any of these species (see environmental assessment report at Appendix H). Therefore, the preparation of a biodiversity development assessment report or a species impact statement is not recommended.</p>	<ul style="list-style-type: none"> <li>Removal of a hollow-bearing tree that may provide breeding habitat for threatened species</li> <li>Rocky overhangs outside of the study area that may provide habitat for cave-dwelling microbat species</li> </ul>
Natural resources	Negligible	N/A	N/A
Community	Negligible and positive	<p>The proposed upgrade to Govetts Leap will have a positive impact on the local and broader community as it will increase the amenity for visitors to the area.</p> <p>The proposed activity will impact the community and visitors to the park as the carpark will be closed and access to the location will be impacted during construction. However, this is not considered to be significant subject to the implementation of mitigation measures presented in Section 9.</p> <p>In addition, there will be a reduction in carparking capacity from 95 to 56. This may increase on-street parking and vehicle movements on Govetts Leap Road and surrounding streets. NPWS is actively pursuing additional budgets to provide new additional carparking.</p>	N/A

Category of impact	Significance of impacts		
	Extent of impact	Nature of impact	Sensitive features
Aboriginal and cultural heritage	Low	<p>The due diligence process found that no recorded AHIMS sites were recorded within the study area. Therefore, no AHIMS sites would be impacted by the proposed activity. The visual inspection assessed the vast majority of the study area as disturbed and unlikely to contain Aboriginal objects. However, there is potential for unexpected Aboriginal objects to be impacted and an unexpected finds protocol must be implemented.</p> <p>Govetts Leap is located within the Blue Mountains National Park and is within the vicinity of the following heritage items:</p> <ul style="list-style-type: none"> <li>• Blue Mountains LEP contains 6 listings of walking tracks and lookouts of local significance</li> <li>• NPWS heritage database includes 10 items within Govetts Leap</li> <li>• Govetts Leap is part of complex listed on the State Heritage Register titled 'Blue Mountains Walking Tracks' which covers 37 walking tracks (SHR item 00980)</li> <li>• the Greater Blue Mountains Area was inscribed on the World Heritage list in 2000 in recognition of its significant natural values</li> <li>• the Blue Mountains is also listed in the Register of the National Estate (Place ID 832), a non-statutory listing.</li> </ul> <p>The study area survey concluded that the proposed upgrades to Govetts Leap would have a positive impact on the heritage significance of the State Heritage Register listing.</p>	<p>Items of historic significance within the study area:</p> <ul style="list-style-type: none"> <li>• State Heritage Register (Number 00980) 'Blue Mountains Walking Tracks'</li> <li>• Potential for unexpected finds</li> </ul>

**In conclusion there is not likely to be a significant effect on the environment and an environmental impact statement is not required.**

The proposed activity will impact 0.426 ha of native vegetation, this includes 0.078 ha of direct impact and 0.348 ha indirect impacts. The vegetation communities to be impacted are not threatened ecological communities listed under either the BC Act or EPBC Act. Additionally, one threatened flora species (*Isopogon fletcheri* – Fletcher’s drumsticks) was identified in the study area. Tests of significance were undertaken for this species both under the BC Act and EPBC Act, which concluded that the proposed works will not have a significant impact on this species. The study area also provides potential habitat for several threatened fauna species, however, the proposed activity is not considered to significantly impact these species as there is a vast amount of alternative habitat adjacent to the study area.

No known Aboriginal objects will be impacted as a result of the proposed activity, however, as sensitive landscape features have been identified there is potential for unexpected Aboriginal objects to be impacted.



A visual inspection of Govetts Leap was undertaken which did not identify any new Aboriginal objects. Some areas of disturbance were observed across portions of the study area in relation to existing roads, a carpark, historical features and visitor amenities. The visual inspection assessed areas of exposed sandstone, outside of the impact area, and trees that are proposed to be impacted by the proposed activity and identified no modified trees, grinding grooves or art sites.

Although there are listed heritage items within the subject site, the proposed activity will not impact on the historical fabric of these listings. The proposed activity was assessed as having the potential to positively impact the heritage significance of Govetts Leap as the proposed activity provides greater access to all visitors and enables more people to enjoy the area. It is considered that there will be no impact to the geology, history and views and vistas of the place. Govetts Leap will continue to be used for recreation purposes and will be accessible to a larger range of users.

During construction there is anticipated to be some impacts associated to air quality, noise, vibration, access and traffic. It is anticipated that that mitigation measures provided in Section 9 will reduce these potential impacts to a low level.

The overall impacts of the proposed activity are considered to be minor. Therefore, the preparation of an environmental impact statement is not required.

There is not likely to be a significant effect on **threatened species, populations, ecological communities** or their habitats, and neither a species impact statement nor a biodiversity development assessment report are required.

Tests of significance were undertaken in accordance with s 7.3 of the BC Act for the following threatened species:

- *Isopogon fletcheri* (Fletcher's drumsticks)
- *Persoonia acerosa* (needle geebung)
- *Pultenaea glabra* (smooth bush-pea)
- *Heleioporus australiacus* (giant burrowing frog)
- *Pseudophryne australis* (red-crowned toadlet)
- *Callocephalon fimbriatum* (gang-gang cockatoo)
- *Calyptorhynchus lathamii* (glossy black-cockatoo)
- *Daphoenositta chrysoptera* (varied sittella)
- *Glossopsitta pusilla* (little lorikeet)
- *Petroica boodang* (scarlet robin)
- *Ninox connivens* (barking owl)
- *Ninox strenua* (powerful owl)
- *Tyto tenebricosa* (sooty owl)
- *Cercartetus nanus* (eastern pygmy-possum)
- *Miniopterus orianae oceanensis* (large bent-winged bat)
- *Chalinolobus dwyeri* (large-eared pied bat)
- *Pteropus poliocephalus* (grey-headed flying-fox)
- *Dasyurus maculatus maculatus* (spotted-tailed quoll)
- *Hoplocephalus bungaroides* (broad-headed snake).
- *Pteropus poliocephalus* (grey-headed flying-fox).

In accordance with the EPBC Act, significant impact criteria were applied for the following species:

- *Isopogon fletcheri* (Fletcher's drumsticks)
- *Persoonia acerosa* (needle geebung)
- *Pultenaea glabra* (smooth bush-pea)
- *Heleioporus australiacus* (giant burrowing frog)
- *Pteropus poliocephalus* (grey-headed flying-fox)
- *Hirundapus caudacutus* (white-throated needletail)
- *Chalinolobus dwyeri* (large-eared pied bat)
- *Dasyurus maculatus maculatus* (spotted-tailed quoll)
- *Hoplocephalus bungaroides* (broad-headed snake).

It was concluded that the proposed works will not have a significant impact on any of the above threatened flora or fauna species therefore the preparation of a biodiversity development assessment report or species impact statement is not recommended.

In addition, the World Heritage Listing of the Greater Blue Mountains Area is also considered to be a matter of national environmental significance, within the meaning of the EPBC Act. Considering the Greater Blue Mountains World Heritage area spans approximately 1.03 million ha (UNESCO 2021), the proposed impacts will affect approximately 0.0001% of this area. And as such is not considered to be significant.

**The activity will require certification to the *Building Code of Australia, Disability (Access to Premises – Buildings) Standards 2010* or Australian Standards in accordance with the NPWS *Construction Assessment Procedure*.**

## 13. Supporting documentation

Documentation supporting this application is detailed below, including appendix number. Appendices are supplied as separate PDFs upon request via the [Govetts Leap Lookout upgrade](#) website.

Appendix	Document	Author	Date
Appendix A	Govetts Leap visitor precinct plan 2: concept design	Clouston Associates	August 2021
Appendix B	Civil engineering plans – Lookout and entry civil works	TTW Structural, Civil, Traffic	November 2021
Appendix C	Landscape plans – Entry and lookout landscape works drawing set	Clouston Associates	January 2022
Appendix D	Geotechnical investigation	Geotechnique	October 2021
Appendix E	Additional geotechnical investigation (retaining walls)	Geotechnique	February 2022
Appendix F	Contamination assessment and waste classification of in-situ soil	Geotechnique	October 2021
Appendix G	Bore hole locations	Geotechnique	October 2021
Appendix H	Ecological assessment report	Eco Logical Australia	November 2021
Appendix I	Aboriginal heritage due diligence assessment	Eco Logical Australia	November 2021
Appendix J	Statement of heritage impact	Eco Logical Australia	November 2021
Appendix K	Arboricultural impact assessment	Arbor Vision	December 2021
Appendix L	Section 60 of the <i>Heritage Act 1977</i> approval (letter Heritage NSW to NPWS dated 3 June 2022)	Heritage NSW	June 2022
Appendix M	Stonework condition assessment	Joy Singh	December 2021

## 14. Signature of proponent

By signing the REF, the proponent confirms that the information in the REF is accurate and adequate to ensure that all potential impacts of the activity can be identified.

Signature



Name (printed)	Will Batson
Position	Manager (Upper Mountains Area)

Date	08/08/2022
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## 15. References

- BOM (Australian Bureau of Meteorology) (2021) Monthly rainfall – Katoomba AWS, accessed 11 November 2021.
- Comber Consultants (2012) Review of environmental factors Forty Bends upgrade – technical paper 2 Aboriginal heritage excavation report [PDF 5.4MB], report prepared for NSW Roads and Maritime Services.
- DAWE (Department of Agriculture, Water and Environment) (2021) EPBC Act Protected Matters Search Tool, accessed 9 August 2021.
- DCCEEW (Department of Climate Change, Energy, the Environment and Water, Cth) (n.d.) EPBC Act policy statements, DCCEEW website.
- DECC (Department of Environment and Climate Change, NSW) (2008) 'Managing urban stormwater: soils and construction – volume 2A Installation of services', DECC Sydney South.
- DECC (2009) Interim construction noise guideline [PDF 1.2MB], DECC, Sydney South.
- DECCW (Department of Environment, Climate Change and Water, NSW) (2010) 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales', Hurstville.
- DPI (Department of Primary Industries, NSW) (2018) 'New South Wales weed control handbook – a guide to weed control in non-crop, aquatic and bushland situations, 7th edition', DPI Invasive Plants and Animals Branch.
- Department of Planning, Industry and Environment (DPIE) (2021a) BioNet Vegetation Classification, DPIE website, accessed 9 August 2021.
- DPIE (2021b) eSpade V2.1 portal, DPIE web portal.
- EES (Environment, Energy and Science, NSW) (2020) 'Hygiene guidelines: protocols to protect priority biodiversity areas in NSW from Phytophthora cinnamomi, myrtle rust, amphibian chytrid fungus and invasive plants', Saving our Species program, Department of Planning, Industry and Environment, Sydney, New South Wales.
- EPA (Environmental Protection Agency) (2014) Waste classification guidelines, EPA, Sydney.
- EPA (2021) Contaminated land record of notices, EPA webpage.
- Kailun Sun, Yan Song, Falin He, Mingyang Jing, Jingchun Tang, Rutao Liu (2021) 'A review of human and animals exposure to polycyclic aromatic hydrocarbons: Health risk and adverse effects, photo-induced toxicity and regulating effect of microplastics', *Science of The Total Environment*, 773, 145403, doi.org/10.1016/j.scitotenv.2021.145403.
- King DP (1994) Soil Landscapes of the Katoomba 1:100,000 Sheet map and report, NSW Department of Conservation and Land Management, Sydney.
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- LLS (Local Land Services) (2019) Greater Sydney regional strategic weed management plan 2017–2022 [PDF 5.3MB], Greater Sydney LLS.
- NewScape Design (2021) Evans Lookout concept design report, prepared for National Parks and Wildlife Service.
- NGH (2020) Govetts Leap visitor precinct – heritage constraints report, unpublished report prepared for Clouston Associates.

- NPWS (National Parks and Wildlife Service, NSW) (2016a) *Parks facilities manual* [unpublished report], NPWS, Sydney.
- NPWS (2016b) *Parks signage manual* [unpublished report], NPWS, Sydney.
- NPWS (2001) 'Blue Mountains National Park plan of management', NPWS, Sydney.
- NPWS (2021) 'Blue Mountains National Park: amendment to the plan of management – accessibility improvements', Department of Planning, Industry and Environment, Parramatta.
- NSW Liberal Party (2019) *Improving access to national parks*, NSW Liberal Party webpage.
- OEH (Office of Environment and Heritage, NSW) (2012) 'Erosion and sediment control on unsealed roads: a field guide for erosion and sediment control maintenance practices on unsealed roads', OEH, Sydney, New South Wales.
- Smith et al. (2006) *Tracks into history: conservation management plan for walking tracks of state heritage significance in the Blue Mountains, part 1* [PDF 102MB], Department of Environment and Conservation.
- Tyrrell Studio (2017) *Sydney green grid: west district plan* [PDF 6.9MB], report prepared for Department of Planning, Industry and Environment, The Office of the Government Architect.
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2021) Greater Blue Mountains Area, A\accessed 30 September 2021.

## More information

- Govetts Leap Lookout upgrade (NPWS webpage)
- **NPWS park policies:**
  - Landslides and rockfalls
  - No smoking in parks policy
  - Vehicle access policy
  - Walking tracks policy
- **Acts, regulations and environmental planning instruments:**
  - Biodiversity Conservation Act 2016
  - Biosecurity Act 2015
  - Blue Mountains Local Environment Plan 2015
  - Environmental Planning and Assessment Regulation 2000, Schedule 3
  - Environment Protection and Biodiversity Conservation Act 1999 (Cth)
  - Fisheries Management Act 1994 No 38
  - Heritage Act 1977
  - National Parks and Wildlife Act 1974
  - Rural Fires Act 1997
  - State Environmental Planning Policy (Biodiversity and Conservation) 2021
  - State Environmental Planning Policy (Planning Systems) 2021
  - State Environmental Planning Policy (Resilience and Hazards) 2021
  - State Environmental Planning Policy (Transport and Infrastructure) 2021
  - Wilderness Act 1987