

# Hassans Walls Reserve

## Plan of Management



for



July 2017

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for

Lithgow City Council

July 2017

### Document Control

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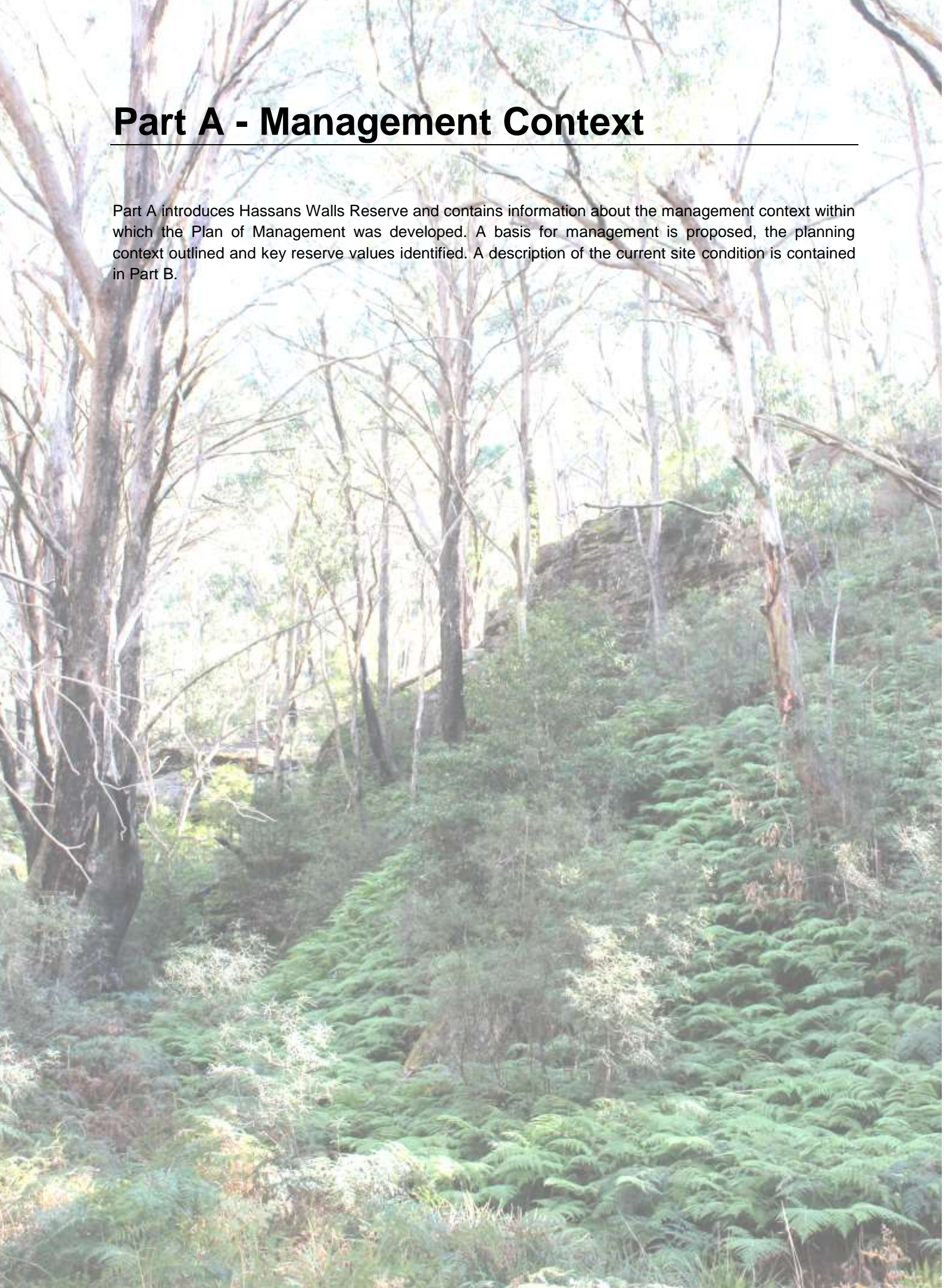
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# Part A - Management Context

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Part A introduces Hassans Walls Reserve and contains information about the management context within which the Plan of Management was developed. A basis for management is proposed, the planning context outlined and key reserve values identified. A description of the current site condition is contained in Part B.



# 1. The Plan of Management

## 1.1 Background

Hassans Walls Reserve is a 780 hectare area of both Crown Land (reserved for Public Recreation) and Community Land managed by Lithgow City Council. It is located immediately south of the Lithgow CBD and south and east of much of the town's residential areas – as shown on Figure 1. The Reserve is a significant environmental and recreation asset, contains infrastructure to support essential services and is a sizeable area under Council's management. Its management therefore warrants description and direction through a Plan of Management – as consistent with the *Crown Lands Act 1989* and *Local Government Act 1993*.

Hassans Walls were named by Governor Macquarie after travelling past the area on the recently constructed Western Road in 1815. The line of cliffs reminded him of hill forts of Northern India where he served in the early 19<sup>th</sup> century.



**Figure 1 - Location and extent of Hassans Walls Reserve (cross hatched orange)**

## 1.2 What is a Plan of Management?

A Plan of Management is developed, in consultation with the community, to provide direction for the future management of a place – usually for a park, reserve or other area of open space. The Plan defines the values, use and future management intent and practices for the area. A plan contains a

range of actions to guide the management of the area over the life of the document – usually a ten year period.

### How to read this Plan of Management

Part A introduces Hassans Walls Reserve and provides information about the management context within which the Plan of Management was developed. A basis for management is proposed and key reserve values identified.

Part B contains information about the known values of Hassans Walls Reserve.

Part C provides a framework for managing Hassans Walls Reserve. The Reserve is divided into four Management Zones and a range of objectives and strategies are recommended for each Management Zone and for the entire site. A Concept Masterplan is provided in this section.

Part D considers the implementation of this Plan of Management and contains information on potential funding sources, reporting, evaluation and review.

## **1.3 Land to which this Plan applies**

Hassans Wall Reserve includes 17 parcels of both Community Land and Crown Land managed by Lithgow City Council.

The Plan of Management applies to Crown Land reserved for public recreation – with this reservation dating from 1917 and most recently 1978 – and Community Land owned by Lithgow City Council. Lithgow City Council is responsible for the Reserve's care, control and management. The greater majority of the Reserve is zoned as Environmental Management under the *Lithgow Local Environment Plan 2014* (a small portion of one parcel encompassing an area associated with the shooting range is zoned as General Industrial). The Reserve is also incorporated into the Environmentally Sensitive Area – Biodiversity Overlay map for the purposes of the application of the *Lithgow Local Environment Plan 2014*.

The landholdings that comprise Hassans Walls Reserve are listed in Table 1 and shown on Figure 2.

## **1.4 Objectives of this Plan of Management**

This Plan of Management has been prepared to provide a clear strategic direction for future management and use of Hassans Walls Reserve.

The principal objectives of this Plan of Management are;

- Identify a vision for Hassans Walls Reserve;
- Identify the values of Hassans Walls Reserve;
- Set out the strategic direction for future management of Hassans Walls Reserve;
- Outline management actions for Hassans Walls Reserve;
- Propose a concept masterplan for future development;
- Provide direction on the conservation and environmental management of natural resources within Hassans Walls Reserve;
- Provide direction on the conservation and protection of cultural heritage sites within Hassans Walls Reserve;
- Identify and minimise risks within Hassans Walls Reserve;
- Consolidate information into a single document for ease of reference; and
- Identify future studies that may be required to inform future Reserve management and implementation of this Plan.

## 1.5 Vision for Hassans Walls Reserve

Hassans Walls Reserve is a regionally important bushland open space area managed to protect its significant natural, heritage and scenic values while also providing environmentally sustainable nature-based or natural-setting recreation opportunities to the local and regional community.

Lot	Deposited Plan (DP)	Land Classification
5	33996	Crown
6	33996	Crown
69	751650	Crown
203	751650	Crown
206	751650	Crown
249	751650	Crown
2	875910	Crown
7027	1059095	Crown
7036	1059097	Crown
207	1118161	Crown
165	1118256	Crown
1	251935	Community
2	251935	Community
3	251935	Community
90	751650	Community
1	1094395	Community
2	1094395	Community



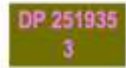
**Table 1 – Hassans Walls Reserve Land Parcels**

*(Source: Lithgow City Council)*





**LEGEND**

-  Land parcel boundaries
-  DP and Lot numbers for Crown Land
-  DP and Lot numbers for Community Land

**HASSANS WALLS RESERVE  
PLAN OF MANAGEMENT  
Land Parcels (DP & Lots)**

Prepared by Gondwana Consulting / June 2017  
Source: Lithgow City Council



Figure 2 – Hassans Walls Reserve land parcels

## **2. Basis for Management**

### **2.1 Roles and Responsibility of the Hassans Walls Reserve Trust**

The Crown Land portions of the Reserve were progressively reserved for Public Recreation – initially 143 hectares was reserved in 1882 and incorporated the escarpments of the highest cliffs and adjacent lowlands to what is now the Great Western Highway. Subsequent gazettals also occurred in 1889, 1898 and on March 9, 1917 when Government Gazette No. 37 created Reserve 52017. Additional lands were added (after Council surrendered lands to the Crown) by Gazette No. 82 on 1 July, 1978.

Today Crown land portions of Hassans Walls Reserve are managed by Lithgow City Council via the Hassans Walls Reserve Public Recreation Reserve Trust appointed by the Minister for Lands on 15 August 1969. The Trust has responsibility for the Reserve's care, control and management consistent with the dedicated public purpose of the reservation – in this case public recreation – as well as the principles of Crown Land management as set out in the Act.

A Reserve Trust operates with a degree of autonomy in this care, control and management role and can enter into maintenance contracts, determine the development of an area (subject to Crown consent), set entry fees, employ staff, and perform other reserve management functions. The Department of Primary Industry – Lands provides Reserve Trusts with operational support, guidance and financial assistance primarily through the Public Reserves Management Fund Program.

Under section 122 of the *Crown Lands Act 1989* Reserve Trusts are required to provide an annual report to the Minister which includes (in accordance with Clause 33 of the *Crown Lands Regulation 2000*) details of income, expenditure, assets, liabilities, improvements, leases and licences granted or in force, uses made of the reserve and any matters of pecuniary interest.

The current administration and management arrangements implemented for Hassans Walls Reserve, applicable to both the Crown and Community land parcels, have proven effective, throughout the past decades, in protecting and presenting the Reserve as the valued place it is today.

Lithgow City Council has been responsible for and financially supported management of the Reserve in excess of any revenue generated by the area, despite the area's use by visitors from a far wider catchment than the immediate LGA.

### **2.2 Plan of Management Process**

This Plan of Management was prepared by Gondwana Consulting drawing on in-house Lithgow City Council expertise and understanding of the Reserve, a number of previous studies relating to the Reserve, several on-site assessments and inspections, and multiple community engagement/input actions. The planning process for preparing the Plan of Management is summarised in the schematic overleaf.

Preparation of the Draft Plan of Management was also extensively informed by the results of four community consultation phases undertaken during the planning process - an initial phase identifying issues and values, a full day on-site survey and feedback opportunity for Reserve users/visitors, an exhibition phase seeking comments on an "Issues and Discussion Paper", and formal exhibition of the Draft Plan of Management for community feedback.

The "Issues and Discussion" paper was prepared through initial consultation with the general community, specific stakeholders and relevant Council staff. It was informed by a review of other background/resource information and field inspections. (Note that detailed environmental surveys have not been undertaken during this planning process and it has been dependent on existing available information.) The "Issues and Discussion Paper" provided a brief overview of these initial consultations, the current values and management issues for the Reserve, and presented options for some of the key management issues to be addressed in the Plan of Management as well as listing more "routine" reserve



management actions. The “Issues and Discussion” paper was made available for community/stakeholder comment during September and October 2016.

Community feedback on the “Issues and Discussion”, and further discussions with Council, informed preparation of the Draft Plan of Management. The Draft Plan of Management for Hassans Walls Reserve was placed on public exhibition during March and early April 2017, with submissions accepted until Friday 28th April 2017.

A total of seventeen (17) submissions on the Draft Plan were received – both from individuals and groups. These submissions were analysed in detail and the subject of a separate report to Council, which included suggested amendments to the Draft Plan in response to the submissions received. More than 90 amendments – ranging from minor factual or detail corrections to amended or additional management directions or actions – were subsequently made in preparation of this final Plan of Management.

## 2.3 Community Consultation

The planning process for Hassans Walls Reserve involved three major consultation phases that have informed the preparation of this Plan of Management.

### Initial Consultation

The initial phase involved seeking information from the community in relation to values for the Reserve and ideas for its future management. This phase was promoted via Council’s website, in local media, direct contact with known interest groups and interested individuals and notification to immediate neighbours. An Information Sheet and a separate reply paid Feedback Form was provided as part of this initial contact and was also made available on Council’s website and in Council offices. Relevant Government agencies and affected private companies were also notified of the planning process and provided with opportunity to comment.

This initial consultation phase elicited 110 responses via the Feedback form and attendance at a Focus Group meeting by eleven interested people / representatives of known interest groups. The comments provided by the respondents and the attendees at the Focus Group Workshop were reviewed and collated into seven broad categories or topics, presented in Table 2.

A number of key points were highlighted during the initial consultation phase, including the following.

- Shared and common values are held for the Reserve - with these values common across ages, gender and reasons for use.
- A particularly high value is placed on the views available from the Reserve and the views of the Reserve from Lithgow township.
- The high value placed on the Reserve’s natural ecology, flora and fauna.

<b>Value</b>	<b>Number of responses received</b> (Totals more than 121 due to multiple responses)	<b>Percentage of total respondents from survey and workshop</b> (Totals more than 100% due to multiple responses)	<b>Percentage of total value responses received</b>
Aesthetics – views from and of the reserve	73	57.9%	27.8%
Natural values – Flora, Fauna, biodiversity	54	44.6%	20.5%
A natural area accessible and close to town	46	38%	17.5%
Passive Recreation	44	36.4%	16.7%
Active Recreation	35	28.9%	13.3%
Economic Benefits and Tourism	7	5.8%	2.7%
Heritage Values	4	3.3%	1.5%

**Table 2 – Community Values for Hassans Walls Reserve**

- The importance of the Reserve as a natural area close to Lithgow township that provides respite from urban living.
- The Reserve’s recreational value – as a venue for both passive recreation (walking, nature appreciation) and active recreation (mountain biking, running, exercise).

“Issues and Discussion Paper” Exhibition

The “Issues and Discussion Paper” was publicly exhibited for a two week period concluding on 10 October 2016. All individuals and organisation who responded to the initial consultation phase were notified of the availability of the Paper and opportunity to provide comment. All Government agencies and affected private companies notified during the initial consultation phase were also contacted. The “Issues and Discussion Paper” and Feedback Form were made available on Council’s website and hard copies were made available in the Lithgow Library and Learning Centre and the Council’s Administration Centre.

A total of twenty five (25) responses were received.

Draft Plan of Management Exhibition

The Draft Plan of Management was placed on public exhibition from Monday 6th March until Friday 7th April 2017, with submissions accepted until Friday 28th April 2017.

The Draft Plan was available on a dedicated page on Council’s website, and hard copies were made available at the Lithgow Library and Learning Centre and Council’s Administration Building. Two “drop-in information sessions” were also held during the Draft Plan’s public exhibition period, on Tuesday 4th April 2017. An on-line feedback form was included on Council’s website, with hard copies also available, and

submissions also received by letter, e-mail and other means. All individuals, organisations and other stakeholders who provided submissions in either of the preceding two community consultation stages – or on Council's list of stakeholders – were contacted (either by e-mail, telephone call or letter on 6th and 7<sup>th</sup> of March 2017) and advised of the availability of the Draft Plan and opportunity to provide comment.

A total of seventeen (17) submissions were received.

## **2.4 Values**

### **2.6.1 Natural Environmental Values**

Community consultation has consistently identified the natural environment as one of the most highly valued aspects of the Reserve. Respondents valued the diversity of flora and fauna found within the Reserve (both common and rare or endangered species), the large and un-fragmented character of the bushland (extending from valley to ridgetop), and the bushland's "high quality" (as generally weed-free vegetation) and habitat value. The usage and aesthetic benefits of such a large and accessible expanse of the natural environment adjoining an urban setting were also highly valued – notably the area's "peace and quiet", its scenic qualities, and as a place offering a physical, visual and recreational respite from urban living.

### **2.6.2 Cultural Heritage Values**

The Reserve lies close to the boundary of the traditional lands of the Darug and Wiradjuri Aboriginal people who would have occupied the area prior to European settlement. Before European settlement the Reserve is likely to have consisted of forest and woodlands, rocky outcrops and escarpments with contained feeder creeks running into the downstream watercourses. Interpretive material at Hassans Walls Lookout notes that middens and rock art are present in the Hassans Walls Reserve however the Wiradjuri traditional owners desire that the location of such sites is not publicly disclosed.

Hassans Walls Reserve contains a diverse range of physical evidence of the non-Aboriginal activities in the Reserve and also provides a link to the heritage of the Lithgow township and surrounding area via evidence of activities of earlier generations. Many of the visitor destinations within Hassans Walls Reserve are named after prominent locals such as James Padley, Major H Bracey and ex-Prime Minister Joseph Cook. Information regarding the history of walking tracks, caves, lookouts and other features of the Reserve could provide a source for potential interpretation of the history of the Reserve and by association, the township of Lithgow.

Hassans Walls Reserve contains one site included on the NSW State Heritage Register – known as the Lithgow Heavy Anti-Aircraft Gun Stations and Dummy Station complex (Listing Number 01862, gazettal date 5 August 2011).

### **2.6.3 Recreational Values**

Hassans Walls Reserve is a valued and popular destination offering a range of passive and active recreational opportunities for local and regional visitors. Hassans Walls Reserve is a generally undeveloped setting offering the opportunity for a variety of passive and active nature based recreational activities in a mostly uncrowded social environment. Local residents of Lithgow value highly the undeveloped and uncrowded nature of the Reserve, combined with its proximity to the township.

Hassans Walls Reserve contains two recreational nodes with visitor facilities – Hassans Walls Lookout with views over the Hartley Valley and Blue Mountains and Bracey Lookout offering views over Lithgow township. These nodes are the key sites that the vast majority of visitors to the Reserve access. Second Lookout is a former recreational node, but is now closed to vehicle access and not signposted/promoted while this area regenerates, and so only receives low levels of use (mainly by knowledgeable locals).

There is a network of walking tracks and mountain bike tracks throughout the Reserve based on the roads, 4WD standard access tracks to communication towers and other infrastructure and an indeterminate number of informal tracks.

Hassans Walls Reserve also plays a significant role in meeting the demand for competitive downhill mountain bike riding as the purpose built “Pony Express” tracks is used for the annual NSW mountain bike State Championships.

A snapshot visitor monitoring program conducted in June 2016 estimated that over 2,200 people visited the Reserve by vehicle in a two week period.

#### **2.6.4 Landscape and Amenity Values**

Due to its proximity, the Reserve contributes to the sense of place and visual amenity of the Lithgow urban area, serving as an aesthetic backdrop on the southern edge of town. The proximity of the Reserve to town is highly valued by residents for its recreational opportunities and the ability to escape and unwind from the pressures of day to day life.



*Clockwise from top left – Rock pagodas near Sir Joseph Cook boardwalk; Rubbish dumping - an ongoing and regular management issue; Hassans Walls Road is popular for walkers, often with dogs on a leash; Hassans Walls Reserve is highly valued for the spectacular views over Hartley Valley and the Blue Mountains*

### 3. Planning Context

#### 3.1 Crown Lands Act 1989

The *Crown Lands Act 1989* provides direction on the management of Hassans Walls Reserve through the relevant objects of the Act and Principles of Crown Land management prescribed in the Act, as cited below.

As on-ground manager (on behalf of the Trust) of the Crown Lands comprising the Reserve, Lithgow City Council has the responsibility to manage Hassans Walls Reserve in accordance with the requirements of the *Crown Lands Act 1989*.

Division 6 of the Act provides for but does not explicitly require a plan of management to be prepared for Crown Lands. Should a plan of management be prepared it must be developed in accordance with an area's purpose of reservation as well as the principles of Crown Land management and the objects of the *Crown Lands Act*. The Plan must address the objects of the Act and define the value, use, management practices and intent for the broad public purpose for which the land has been reserved or dedicated.

Those Crown Land areas included in the Hassans Walls Reserve Plan of Management were originally reserved for the purposes of "public recreation".

**"Objects of Act (S10)** – The objects of this Act are to ensure that Crown land is managed for the benefit of the people of New South Wales....' and

**Section 11** - provides a set of principles for Crown Land management, as listed below:

- (a) that environmental protection principles be observed in relation to the management and administration of Crown land,
- (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible,
- (c) that public use and enjoyment of appropriate Crown land be encouraged,
- (d) that, where appropriate, multiple use of Crown land be encouraged,
- (e) that, where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity, and
- (f) that Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.

Table 3 identifies how/where this Plan of Management complies with these principles of Crown land management.

#### 3.2 Local Government Act 1993

The *Local Government Act 1993* gives direction on how a plan of management is to be written for community land. The Act requires land to be categorised depending on how it is intended to be used and provides the core objectives for directing the management of land so categorised.

The categories as applied to Hassans Walls Reserve are depicted in Figure 11 in Part C of this Plan. A detailed description of the categories which apply to Hassans Walls Reserve and relevant core objectives are also provided in Part C.

This Plan of Management has been prepared according to the requirements of both the *Local Government Act 1993* and the *Crown Lands Act 1989*. The Department of Primary Industry – Lands has previously accepted Plans of Management developed under the Local Government Act model.

<b>Principles of Crown Land Management (Section 11 of the <i>Crown Lands Act 1989</i>)</b>	<b>Compliance with the principles of Crown Land Management</b>
<i>That environmental protection principles be observed in relation to the management and administration of Crown land.</i>	The natural environment is a key value identified by this Plan of Management. Management actions have been created to protect this key value.
<i>That the natural resources of Crown Land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.</i>	The Plan of Management provides management actions to conserve and protect these natural resources.
<i>That public use and enjoyment of appropriate Crown Land be encouraged.</i>	The Crown Land is reserved for “public recreation”. This reservation is supported by the Plan of Management and the management actions identified provide a means of maintaining and improving the experiences of public use and enjoyment of the Reserve in a sustainable fashion without detracting from the area’s underlying values.
<i>That, where appropriate, multiple use of Crown Land be encouraged.</i>	There is already a high degree of multiple use of the Reserve. The Plan encourages and supports the continuation of multiple use.
<i>That, where appropriate, Crown Land should be used and managed in such a way that both the land and its resources are sustained in perpetuity.</i>	The Plan of Management aims to protect the values identified for the Reserve. A vision has been set, and management actions and priorities identified, to ensure protection of its natural environment and cultural heritage and provide for sustainable use of the Reserve into the future.
<i>That Crown Land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.</i>	Leases, licences or otherwise are only permitted where they are consistent with the values of the Plan of Management and the provisions of the <i>Crown Lands Act 1989</i> .

**Table 3 - Compliance with the Principles of Crown Land Management**

### **3.3 Environmental Planning and Assessment Act, 1979**

The *Environmental Planning and Assessment Act, 1979* establishes the statutory planning framework for environmental and land use planning of all land in NSW. One of the main instruments for implementing the Act are Local Environmental Plans - statutory planning tools that set controls over development in the area to which they apply. They contain zoning controls as well as controls for heritage conservation areas and protected areas, amongst other matters.

The greater majority of the Reserve is zoned Environmental Management under the *Lithgow Local Environment Plan 2014*. A small portion of one parcel encompassing an area associated with the shooting range is zoned as General Industrial. The Reserve is also incorporated into the Environmentally Sensitive Area – Biodiversity Overlay map for the purposes of the application of the *Lithgow Local Environment Plan 2014*.



### **3.4 National Parks and Wildlife Act, 1974**

The NSW Office of Environment and Heritage has legislative responsibility for Aboriginal sites, through the *National Parks and Wildlife Act 1974*. Under this Act landholders / managers have obligations regarding the protection and management of known Aboriginal sites on their lands. The NSW Office of Environment and Heritage also maintains the *Aboriginal Heritage Information Management System (AHIMS)*. The AHIMS includes:

- information about Aboriginal objects that have been reported to the Director General, Department of Premier and Cabinet
- information about Aboriginal Places which have been declared by the Minister for the Environment to have special significance with respect to Aboriginal culture
- archaeological reports.

The AHIMS records do not include any Aboriginal sites or Places in Hassans Walls Reserve. That is not to say that no such sites exist or that there is no evidence of Aboriginal occupation and use of the Reserve.

### **3.5 Threatened Species Conservation Act 1995**

This is an Act to provide for the conservation of threatened species, populations and ecological communities of animals and plants (although the Act does not generally apply to fish). The Act sets out a number of specific objects relating to the conservation of biological diversity and the promotion of ecologically sustainable development.

Identified species, populations, ecological communities and key threatening processes are listed in the Schedules to the Act. Provision is made for the preparation of recovery plans for listed threatened species, populations and ecological communities and threat abatement plans to manage key threatening processes.

The Act also provides for the declaration and mapping of habitats that are critical to the survival of those identified threatened species, populations and ecological communities that are classified as endangered (critical habitats).

### **3.6 Heritage Act 1977**

The NSW Office of Environment and Heritage has legislative responsibility for managing Heritage sites through the NSW Heritage Act, 1977. The Act makes provisions to conserve the State's environmental heritage and provides for the identification and registration of items of State heritage significance. The NSW Office of Environment and Heritage maintains the State Heritage Register - a list of places and objects of particular importance to the people of NSW. The register lists over 1,650 items, in both private and public ownership. Listing on the State Heritage Register means the item:

- is of particular importance to the people of NSW and enriches understanding of our history and identity;
- is legally protected as a heritage item under the NSW *Heritage Act 1977*
- requires approval from the Heritage Council of NSW for major changes
- is eligible for financial incentives from the NSW and Commonwealth governments.

### **3.7 Rural Fires Act 1997**

Council has legal obligations under the *Rural Fires Act 1997* and *Lithgow Bush Fire Risk Management Plan 2015* (NSW Rural Fire Service, 2015) to manage bush fire risk on its own land. As the Reserve's

manager Council has a responsibility to “protect persons and property” immediately adjacent to the Reserve from hazards – notably wildfires – originating on the Reserve. Council also seeks to ensure that its management of the area does not detract from surrounding residents’ “quiet enjoyment” of their properties.

The Reserve has been identified as a high risk for bushfires under the *Lithgow Bush Fire Risk Management Plan 2015* (NSW Rural Fire Service, 2015). The whole of the Reserve is managed as a Strategic Fire Advantage Zone (SFAZ) which recognises that hazard reduction burning around specific assets is necessary as well as back burning during bushfire events. Currently there is no Reserve specific fire management plan that informs the *Lithgow Bush Fire Risk Management Plan 2015*.

### **3.8 State Environmental Planning Policy (Infrastructure) 2007**

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State. The Infrastructure SEPP assists local government and the communities they support by simplifying the process for providing essential infrastructure.

The Infrastructure SEPP has specific planning provisions and development controls for 25 types of infrastructure works or facilities including roads, emergency services, electricity delivery, parks and other public reserves and telecommunications networks.

The Infrastructure SEPP outlines the planning rules for such works and facilities, including:

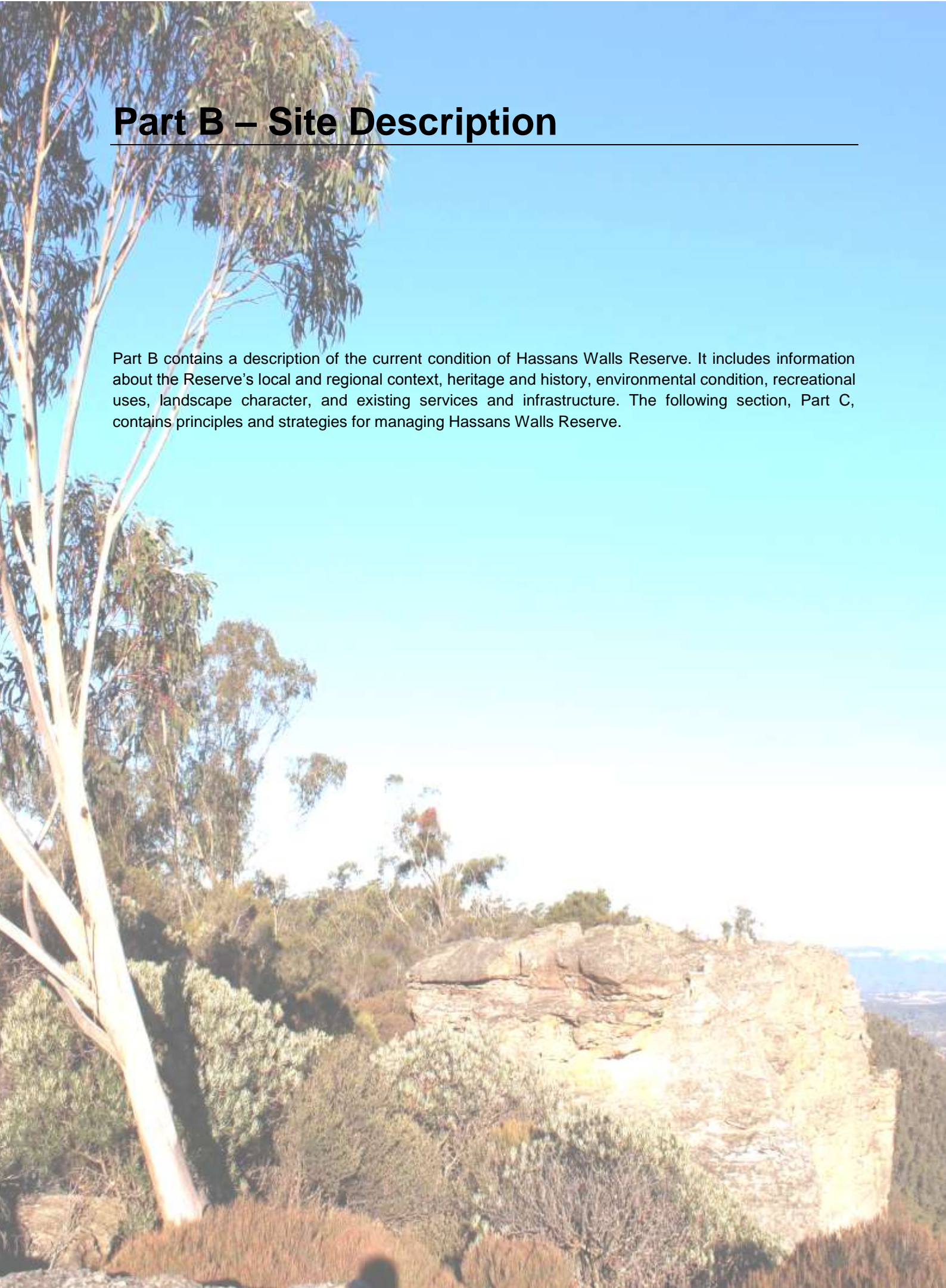
- Where such development can be undertaken;
- What type of infrastructure development can be approved by a public authority under Part 5 of the Environmental Planning and Assessment Act (EP&A Act) following an environmental assessment (known as ‘development without consent’);
- What type of development can be approved by the relevant local council, Minister for Planning or Department of Planning under Part 4 of the EP&A Act (known as ‘development with consent’); and
- What type of development is exempt or complying development.

Of particular relevance to Hassans Walls Reserve is Clause 65 that specifies that development for any purpose may be carried out without consent if the development is for the purposes of implementing an adopted plan of management. The clause also lists a range of ancillary developments permitted without consent. Clause 66 provides for a range of exempt developments within a public reserve such as the construction, maintenance and repair of walking tracks, boardwalks, stairways, gates, seats shelters and shade structures.

# Part B – Site Description

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Part B contains a description of the current condition of Hassans Walls Reserve. It includes information about the Reserve's local and regional context, heritage and history, environmental condition, recreational uses, landscape character, and existing services and infrastructure. The following section, Part C, contains principles and strategies for managing Hassans Walls Reserve.



## 4. Local and Regional Context

Hassans Walls Reserve adjoins the residential area of the Lithgow township, within Lithgow City Council Local Government Area. Lithgow is 140 kilometres west of Sydney CBD and 37 kilometres west of Katoomba in the Blue Mountains. The main western railway line from Sydney also provides access to Lithgow.

The Reserve is approximately 780 hectares in size with a boundary of around 17 kilometres in length and is predominantly natural bushland. The northern boundary of Hassans Walls Reserve abuts Lithgow's urban areas while the Reserve's southern boundary adjoins the Great Western Highway. Hassans Walls Road provides vehicle access to the Reserve from either Lithgow township or via Browns Gap Road with other roads providing access from Hassans Walls Road to Hassans Walls Lookout and Bracey Lookout. Local residents also access the Reserve by foot or bicycle.

The Reserve consists predominantly of native bushland, providing a relatively natural area on the doorstep of Lithgow. The Reserve contains a large partially disturbed representative sample of a range of vegetation communities and is located within the far northern South Eastern Highlands Bioregion close to the Sydney Basin Bioregion. Although no comprehensive flora and fauna survey has been conducted the Reserve is known to support a number of conservation significant species.

The primary destination for many visitors to the Reserve is Hassans Walls Lookout. This site comprises a small dirt car park and a recently constructed walkway (an elevated boardwalk comprising a fibreglass reinforced plastic deck with a metal superstructure and safety railings) that leads over 50m to a lookout point with views over the Hartley Valley, Blue Mountains and west towards Bathurst. Several information and interpretive signs provide a short history of the Reserve. A second lookout facility, and small sealed parking area, is located at Bracey Lookout, offering views north over Lithgow township. There are numerous walking and mountain bike tracks throughout Hassans Walls Reserve.

The Reserve is an important recreation resource for the local community for exercise (walking and running), bush walking / nature appreciation and is a popular and well-known destination for local and other mountain bikers. The Pony Express track that is frequently used for local and state-wide competitive mountain bike events is managed by the Central Tablelands Mountain Bike Club, who actively promote the area and other rides within the Reserve.

As stated, Hassans Walls Reserve adjoins an urban context, with existing and planned residential development within the Lithgow city area. More people will seek to do more things within the Reserve, potentially leading to greater and more diverse pressures on the area's attractions and values as well as conflicts between activities and user groups. Residential areas adjacent to the northern and western boundaries of the Reserve will likely generate direct and indirect impacts on these bushland areas – in terms of weed intrusion, rubbish dumping, utility and service corridors, encroachments, visual intrusion, anti-social behaviours and others.

Careful planning will be required to protect and manage the Reserve and its values in the face of these external pressures in order to realise the full range of biophysical, recreational, visual and cultural values that the area holds for the community.

## 5. Natural Environment Values

The Reserve is located within the far northern part South Eastern Highlands Bioregion. The South Eastern Highlands Bioregion lies just inland from the coastal bioregions of the South East Corner and the Sydney Basin, bounded by the Australian Alps and South Western Slopes bioregions to the south and west. It contains approximately 6.11 per cent of NSW.

There is a diverse range of vegetation communities within the Bioregion related to variations in soils, altitude, temperature and rainfall. Just less than 15% of the Bioregion is within conservation tenures, the majority of which are national parks and nature reserves (12.22% of the Bioregion).

### 5.1 Vegetation Communities and Flora

The vegetation communities of Hassans Walls Reserve have been mapped in two vegetation surveys of the region. “The Vegetation of the Western Blue Mountains” (DEC, 2006) incorporates the northern half of the Reserve and “Native Vegetation of Southeast NSW: a revised classification and map for the coast and eastern tablelands” (DEC, 2010) includes the southern half of the Reserve. The former report addresses a significantly smaller land area and classifies vegetation communities on a much finer scale than the latter. Neither report involved a systematic field survey of the Reserve.

The *Native Plants Hassans Wall Reserve Lithgow* (Lollback et al, 2014) lists 487 species of plants including 79 species of orchid, 21 species of fern, 30 species of liverworts, 29 mosses, 28 species of fungi (although the forward notes over 260 as occurring in the Reserve) and 12 species of lichen . This publication provides by far the most comprehensive list of flora in the Reserve.

A number of site specific surveys and reports have been prepared as part of the development assessment processes for proposed uses within the Reserve – namely, *Flora and Fauna Assessment of Proposed Mountain Bike Track Hassans Walls* (Epacris Environmental Consultants, 2008) and *Flora and Fauna Survey of Hassans Wall Lookout Area* (Epacris Environmental Consultants, 2012). As part of these reports the vegetation communities and the occurrence of rare or otherwise significant plant species in the affected areas have been surveyed at a finer scale and described.

There is a diversity of vegetation communities in the Reserve, much of which are largely undisturbed. The Reserve is physically linked to broader natural landscapes and areas of remnant native bushland which assists to maintain wildlife population connectivity.

Figure 3 provides a combined map of the vegetation communities within the Reserve, as identified by the two above mentioned DEC reports. The vegetation communities of Hassans Walls Reserve as classified in the two reports are not directly comparable – that is, the vegetation communities in one report do not directly equate to those of the other.

#### Vegetation Communities identified in *Native Vegetation of Southeast NSW: a revised classification and map for the coast and eastern tablelands* (DEC, 2010)

This survey was undertaken at a scale of 1:100,000 and covered much of the southeast of NSW coast and adjacent ranges and plains. It provides mapping and description of broad vegetation communities based on field survey data from an extensive list of sources. Without reviewing each of these sources it is not possible to understand if any on ground survey sites were located within Hassans Walls Reserve.

The vegetation community descriptions below are derived from a 1:100,000 scale survey with limited ground truthing. Descriptions at this scale apply to large areas of land and their applicability / accuracy in relation to Hassans Walls Reserve would need to be verified by on ground surveys. All of the species ascribed to each vegetation community may not necessarily occur within the Reserve.

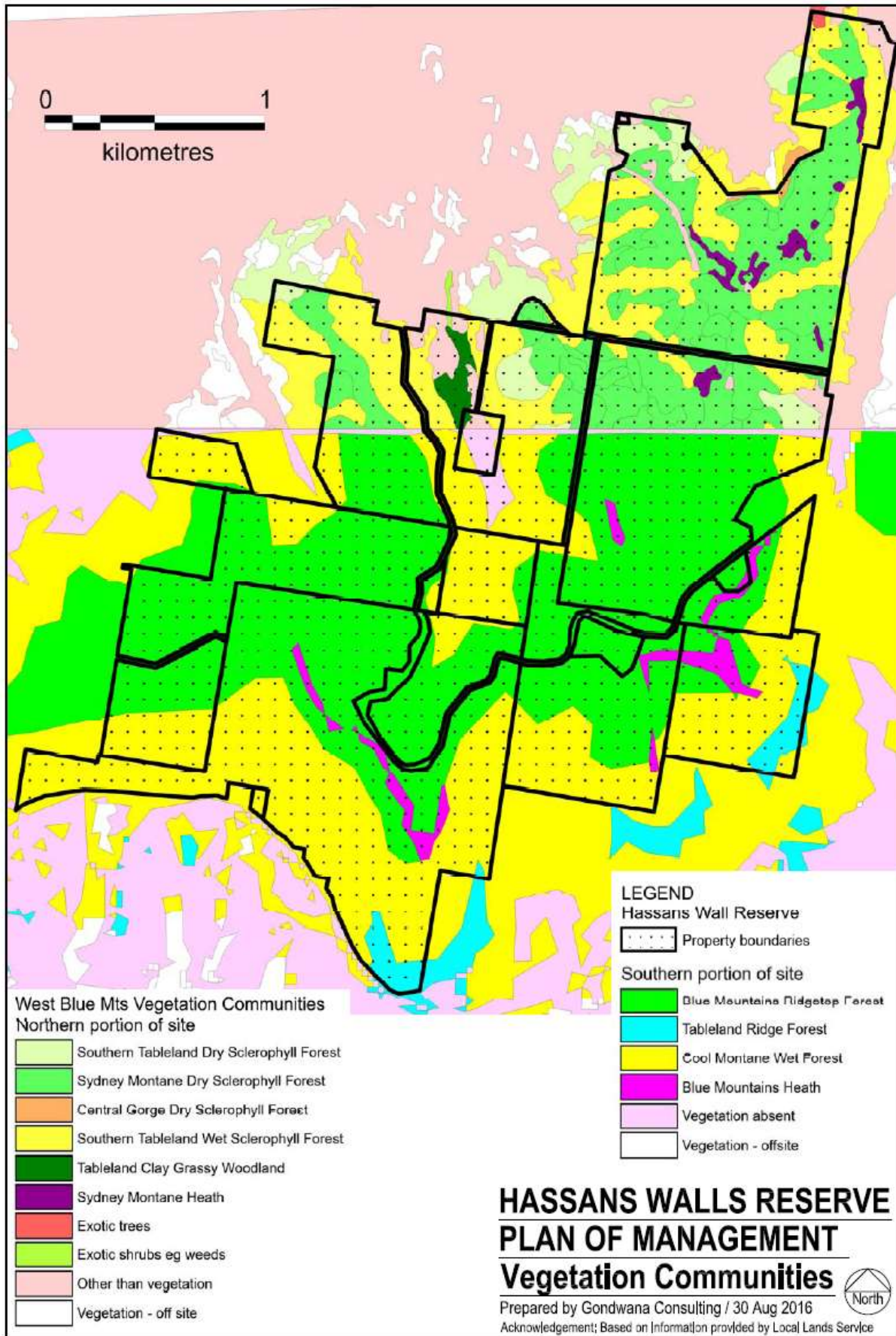


Figure 3 – Vegetation communities of Hassans Walls Reserve

Tableland Ridge Forest – a eucalypt forest with an open understorey of sclerophyll shrubs, forbs, sedges and grass occurring at elevations of 600 – 1200m above sea level. Dominant trees are Black Ash (*Eucalyptus sieberi*) and Narrow-leaved Peppermint (*E. radiata*) and common shrubs include Grey Guinea Flower (*Hibbertia obtusifolia*), Narrow-leaved Geebung (*Persoonia linearis*), Lance-leaf Beard Heath (*Leucopogon lanceolatus*) and Prickly Broom Heath (*Monotoca scoparia*). This community occurs in the south eastern portion of the Reserve.

Cool Montane Wet Forest – a tall eucalypt forest with open shrub layer and moist groundcover occurring at elevations between 750 – 1300m above sea level. Dominant trees are Narrow-leaved Peppermint (*E. radiata*), Brown Barrel (*E. fastigata*), Broad-leaved Ribbon Gum (*E. dalrympleana*) and Blackwood (*Acacia melanoxylon*). Often occurs in gullies with deep moist loam soil adjacent to ridgetops containing Tableland Ridge Forest. This community occurs on the foothills and slopes adjoining the escarpments of Hassans Walls Reserve.

Blue Mountains Ridgetop Forest - a low eucalypt forest with an abundant sclerophyll shrub storey and a groundcover dominated by sedges and forbs on sandy loam soils between 650 and 1050m above sea level. Dominant trees are Sydney Peppermint Gum (*E. piperita*), Black Ash (*E. sieberi*) and common shrubs include Flaky-barked Tea-tree (*Leptospermum trinervium*), Narrow-leaf Platysace (*Platysace linearifolia*), Hairpin Banksia (*Banksia spinulosa*), Broad-leaved Geebung (*Persoonia levis*), Crinkle Bush (*Lomatia silaifolia*), Prickly Broom Heath (*Monotoca scoparia*), Gorse Bitter-pea (*Daviesia ulicifolia*), Narrow-leaf Drumsticks (*Isopogon anemonifolius*), *Bossiaea heterophylla*, and Broad-leaved Hakea (*Hakea dactyloides*). This community occurs on the ridgetops of much of Hassans Walls Reserve.

Blue Mountains Heath – an open to dense shrub canopy with some emergent mallees and a groundcover of sedges and forbs. Mainly occurs in scattered patches on shallow, damp loamy soils on exposed plateaus between 600 – 1100m above sea level and is commonly associated with Blue Mountains Ridgetop Forest. The emergent mallee is typically Blue Mountains Mallee Ash (*E. stricta*) and shrubs include Narrow-leaf Drumsticks (*Isopogon anemonifolius*), Dwarf Sheoak (*Allocasuarina nana*), Flaky-barked Tea-tree (*Leptospermum trinervium*), Pale Mat-rush (*Lomandra glauca*), Narrow-leaf Platysace (*Platysace linearifolia*), Common Conestick (*Petrophile pulchella*), Heath-leaved Banksia (*Banksia ericifolia*) and *Hakea laevipes*. Patches of this community have been mapped on the southern plateaus of the Reserve.

#### Vegetation Communities identified in *The Vegetation of the Western Blue Mountains* (DEC, 2006)

This vegetation survey provides a significantly more detailed analysis of the composition and distribution of vegetation communities than the previous survey, having been undertaken at a 1:25,000 scale. It divides vegetation communities into a series of mapping units that reflect local variations in geology, soil type, topography, elevation and rainfall. The survey and report is based on data collected at over 1200 sites (in this or previous surveys) – however no sites were located within Hassans Walls Reserve. Consequently, there has been no ground truthing of the vegetation communities mapped as occurring in the Reserve. The applicability / accuracy of the vegetation communities in relation to Hassans Walls Reserve would need to be verified by on ground surveys. All of the species ascribed to each vegetation community may not necessarily occur within the Reserve.

The descriptions below are based at the vegetation community scale (described in Section 4.1 of Volume 1 of the report) to allow for a degree of comparability between this survey and that of the southern part of the Reserve. The mapping units identified within Hassans Walls Reserve are provided for subsequent ease of reference back to the source document, if necessary.

Sydney Montane Dry Sclerophyll Forest (mapping units 26, 29 and 30) – A low forest with a distinctive sclerophyll shrub understorey that occurs at altitudes more than 900 metres above sea level. Dominant trees are typically Black Ash (*E. sieberi*) with shrubs including *Acacia*, *Dillwynia*, *Pultenaea*, *Hakea*, *Isopogon* and *Petrophile*. This community is comparable to the Blue Mountains Ridgetop Forest described earlier.

Sydney Montane Heath (mapping units 43 and 44) – Heathland communities that occur on skeletal soils in exposed plateaus, also in association with rock pagodas. Usually a combination of moderately dense thickets of *Banksia*, Tea-tree (*Leptospermum*) and Dwarf She-oak (*Allocasuarina nana*) with clumps of Sedge (*Lepidosperma*) and *Platysace*. When occurring in association with pagodas Common Fringe-myrtle (*Calytrix tetragona*) and Blunt Beard-heath (*Leucopogon muticus*) are most common. This community is comparable to the Blue Mountains Heath described earlier.

Southern Tableland Wet Sclerophyll Forest (mapping unit 8) – Tall open eucalypt forests with a herbaceous or ferny understorey, generally in areas receiving more than 900mm annual rainfall. The type of this community identified in Hassans Walls Reserve occurs primarily in gullies and features tall Brown Barrel (*E. fastigata*), *Blue Mountains Ash* (*E. oreades*), Mountain Grey Gum (*E. cypellocarpa*) and Sydney Peppermint Gum (*E. piperita*).

Tableland Clay Grassy Woodland (mapping unit 11) – associated with deeper soils found along creeks, flats and gullies at high elevations. The woodland is dominated by Ribbon Gum (*E. viminalis*), Broad-leaved Ribbon Gum (*E. dalrympleana*), Snow Gum (*E. pauciflora*) with smaller shrubs such as Silver Wattle (*Acacia dealbata*). Snow grass dominates the ground cover.

Southern Tableland Dry Sclerophyll Forest (mapping units 35 and 37) - low growing (<20m in height) woodlands and open forests on crests and steep slopes. Broad-leaved Ribbon Gum *E. dalrympleana* forms a taller canopy over a smaller tree layer of Broad-leaved Peppermint (*E. dives*) with a sclerophyll shrub layer and grassy ground cover usually present.

#### Communities identified by local botanist (Drewe, pers com, 2016)

Further to the above vegetation classifications, local amateur botanist Helen Drewe, provided a map of the distribution of vegetation communities based on her on ground field experience, long interest and association with the Reserve. The classification is broadly comparable with the above surveys but utilises a slightly different nomenclature, identifying the following communities:

- Blue Mountains Ash / Black Ash Open Forest and Woodland
- Black Ash / Blaxland's Stringybark Open Forest and Woodland
- Black Ash / Blaxland's Stringybark and Poa Woodland
- Blaxland's Stringybark /Broad-leaved Ribbon Gum and Black She-oak Woodland
- Mountain Grey Gum / Brown Barrel Tall Open Forest
- Broad-leaved Peppermint / Ribbon Gum / Snow Gum Open Forest
- Dwarf She-oak / Heath-leaved Banksia Heathland
- Blue Mountains Mallee Ash / Black Ash Heathland
- Mountain Grey Gum / Blaxland's Stringybark / Possumwood Woodland

The distribution of these communities within Hassans Walls Reserve is illustrated in Figure 4.

#### **Conservation Significant Plant Species**

Several species of conservation significance have been recorded within the Reserve, these are listed in Table 4.

Hassans Walls Reserve also contains a high diversity of orchid species, with over 70 species recorded from the area - making the site one of the most significant for this species in the Central Tablelands (Lollback et al, 2014).



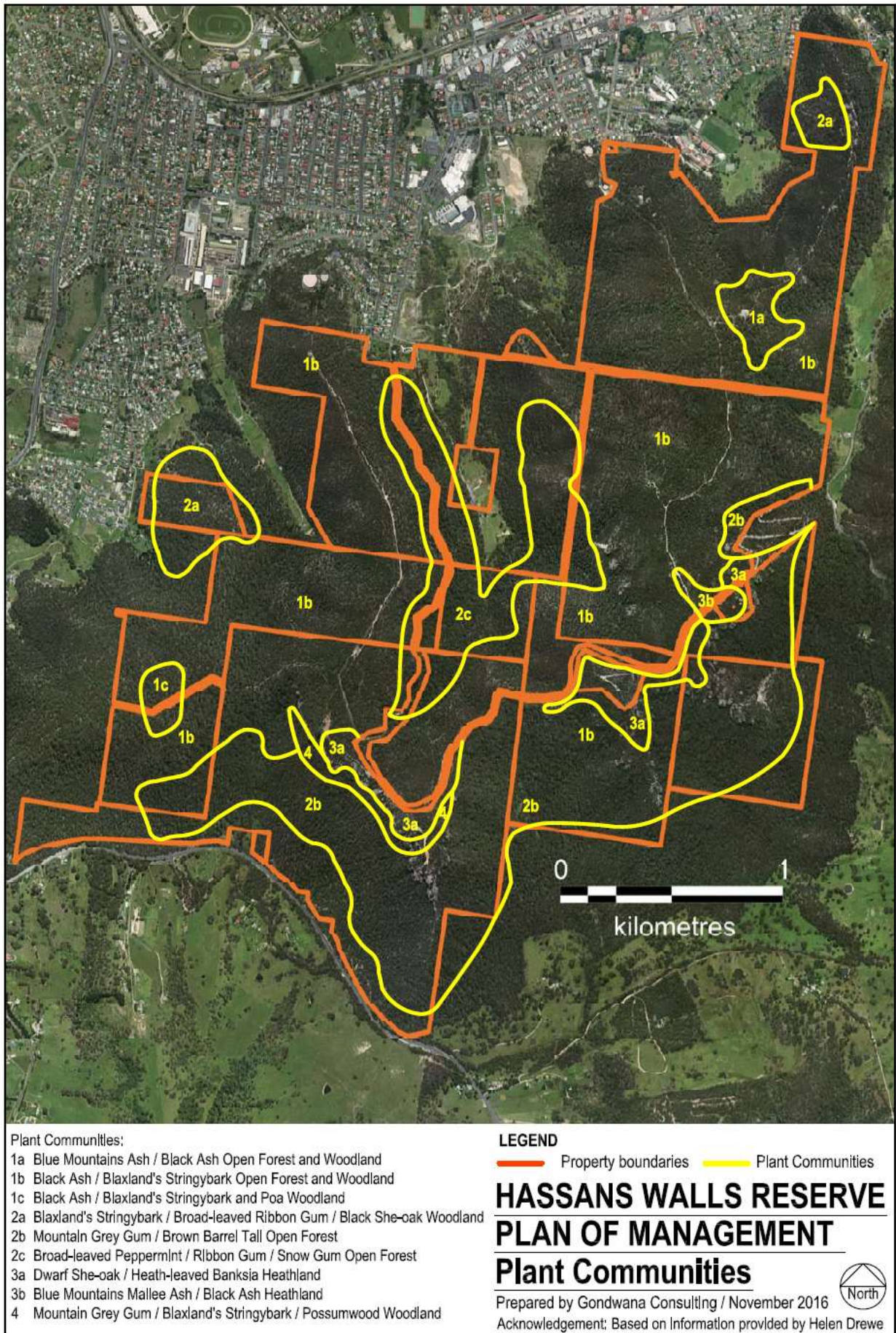


Figure 4 – Vegetation communities of Hassans Walls Reserve (source: H Drewe, pers. comm.)

Name	Location	TSC Act, 1995	RoTAP code, 1988	EPBC Act, 1999	Comments
<i>Acacia asparagoides</i>	Heath areas / plateaus	-	2R	-	Found in heathland at Hassans Walls Lookout, and elsewhere in Reserve. Range extending over less than 100km. Rare but with no current identifiable threat.
<i>Philotheca obovalis</i>		-	3RCa	-	
<i>Leptospermum p. nov. "L"</i>		-	2R, local endemic	-	
<i>Leptospermum blakelyi</i>	Heath areas / plateau tops	-	2R, local endemic	-	Found in heathland at Hassans Walls Lookout, and elsewhere in Reserve. Only known from the Reserve and rocky areas around Lithgow, Newnes Plateau, and Shipley Plateau. Range extending over less than 100km. Rare but with no current identifiable threat.
<i>Persoonia acerosa</i>	Damp, disturbed areas	Vulnerable	-	Vulnerable	
<i>Pseudanthus divaricatissimus</i>	Heath areas / plateau tops	-	3RCa	-	Found in heathland at Hassans Walls Lookout. Range more than 100km, but in small populations. Rare but with no current identifiable threat. Occurs within a conservation reserve, and considered to be adequately reserved (1000 or more plants protected).

Source: Kidd (2009) and Epacris Environmental Consultants (2012).

**Table 4 – Significant Plant Species of Hassans Walls Reserve**

### Introduced Plants

The *Native Plants Hassans Wall Reserve Lithgow* (Lollback et al, 2014) lists 92 pest plant species in the Reserve. These weeds are generally concentrated around disturbed areas such as the developed visitor use nodes as well as roads, walking and bike tracks and parts of the Reserve that adjoin the urban areas of Lithgow.

The spread of weeds into and through the Reserve can be inadvertently assisted by recreational use and other activities such as road maintenance / grading. The use of introduced gravel to establish and maintain roads can also provide additional nutrients to the adjacent soil which has the potential to favour introduced species. Weeds may also be introduced into the Reserve by the dumping of garden waste and by natural means such as wind and birds.

The spread and establishment of weeds has the potential to alter the composition and structure of the Reserve's natural vegetation communities and the availability of resources (light and soil moisture).

## 5.2 Fauna

A systematic fauna survey of Hassans Walls Reserve has not been undertaken. Rather, a range of previous reports and studies have collated existing records and / or undertaken fauna surveys on a site basis in response to specific development proposals. As a result the understanding of the fauna is incomplete.

Consolidated records from a number of sources - *Hassans Wall Draft Management Plan* (Goldney and Smith, 2003), *Hassans Walls Reserve* (Kidd, 2009) *Flora and Fauna Assessment of Proposed Mountain Bike Track Hassans Walls* (Epacris Environmental Consultants, 2008) and *Flora and Fauna Survey of Hassans Wall Lookout Area* (Epacris Environmental Consultants, 2012) - list 72 birds, 16 mammals (including 5 microbats), 7 reptiles, 2 amphibians and 7 butterflies as occurring in the Reserve.

The diverse fauna of the Reserve is typical of bushland areas in the bioregion. The largely undisturbed nature of most of the Reserve as well as the diversity of vegetation communities and niche habitats (such as the escarpment and rock pagodas) increase the range of habitats within the Reserve. The broader connection of Hassans Walls Reserve to surrounding large areas of remnant vegetation that ultimately provides connectivity to National Parks enable mobile fauna to move over larger areas in relative safety. Regular roadkill on Browns Gap Road (for example, wombats, echidnas, wallabies and kangaroos) is evidence of fauna movement on this eastern boundary of the Reserve.

### Conservation Significant Fauna Species

Three threatened bird species Gang-gang Cockatoo, Scarlet Robin and Little Lorikeet have been recorded in the area and one threatened microbat species, the Eastern Bentwing Bat. These species are listed as Vulnerable in NSW – as shown in Table 5.

Name	Common name	Location	Status under TSC Act, 1995	Status under EPBC Act, 1999
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	Heath, Woodlands	Vulnerable	
<i>Petroica boodang</i>	Scarlet Robin	Forest and Woodlands	Vulnerable	
<i>Glossopsitta pusilla</i>	Little Lorikeet	Heath, Forest and Woodlands	Vulnerable	
<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing Bat	Escarpment	Vulnerable	
<i>Paralucia spinifera</i>	Purple Copper Butterfly	Foothills of northern escarpment	Endangered	Vulnerable

Source – Goldney and Smith (2003), Kidd (2009) and Epacris Environmental Consultants (2008 and 2012).

**Table 5 – Significant Animal Species of Hassans Walls Reserve**

The Purple Copper Butterfly, first described by scientists in 1978, is one of Australia's rarest butterflies. Numerous populations of the endangered Purple Copper Butterfly (*Paralucia spinifera*) are located in the Reserve, on the northern foot slopes (Epacris Environmental Consultants, 2008), western escarpments and the Forty Bends area (SKM and PB, 2012). The butterfly occurs at elevations above 850 metres where it feeds exclusively on a form of Blackthorn, *Bursaria spinosa* subsp. *Lasiophylla*. The butterfly has a mutualistic relationship with a species of small black ant, *Anonychomyrma itinerans*. Butterfly eggs are laid on Blackthorn bushes or adjacent debris near nests of the ant. Once the eggs hatch and mature the ants keep them underground in their nest during the day and shepherd them out at night for the larvae to graze on blackthorn leaves. At maturity, the larvae pupate in the ants nest and emerge as butterflies. For their part, the ants receive a sugary excretion from a gland on the back of the larvae.

Also of note are records of Peregrine Falcons (*Falco peregrinus macropus*) nesting in the Reserve and the numerous Superb Lyrebird (*Menura novaehollandiae*) nests, dancing mounds and scratchings.

### **Introduced Animals**

A range of introduced animals have been recorded from the Reserve including foxes, rabbits, pigs, goats and cats. Competition for resources, habitat destruction and predation can have considerable impacts on populations of native mammals, reptiles, frogs and birds. Introduced animals also impact native plant species through grazing, rutting and impacts on soils and increased potential for soil erosion.

Local residents with dogs on and off leads regularly use the Reserve for walking and exercise. Dogs off leads is illegal and has a high potential to pose a potential danger to other Reserve visitors and directly impact native fauna via disturbance and predation while dogs on leads may also impact native fauna.

As with native fauna, there has been no systematic survey of introduced animals within the Reserve and therefore limited information is available.

## **5.3 Fire Management**

The rugged terrain and close proximity of Lithgow to the relatively large area of Eucalypt forest in Hassans Walls Reserve has a high potential to present a risk to life and assets should a large fire take hold. Fire mapping (Figure 5 overleaf) shows only small areas have burnt since the Vickers Fire that impacted much of the Reserve in 2002.

The Reserve has been identified as a high risk for bushfires under the *Lithgow Bush Fire Risk Management Plan 2015* (NSW Rural Fire Service, 2015). The whole of the Reserve is managed as a Strategic Fire Advantage Zone (SFAZ) which recognises that hazard reduction burning around specific assets is necessary as well as back burning during bushfire events. Currently there is no Reserve specific fire management plan that informs the Lithgow Bush Fire Risk Management Plan 2015.

The NSW Rural Fire Service carries out targeted hazard reduction burns in parts of the Reserve to minimise the risk of large fires and to protect assets. The primary aim of this mechanical burning is to protect life and assets, however, consideration is also given to protecting fire sensitive vegetation communities and species and maintaining biodiversity assets.

None of the vehicle tracks within the Reserve are classified as Category 1 fire trails by the NSW Rural Fire Service – rather they are regarded as Category 7 and 9 access tracks. This distinction is important as the latter categories require access tracks to be only a minimum of 3 metres wide with a height clearance of 3.5 metres while Category 1 tracks are required to have greater widths and height clearances.

The 2002 bushfire burnt virtually the entire escarpment and gully areas of the Reserve. Some parts of the Reserve are still recovering from this fire. Generally speaking most Eucalypt forests and woodlands are well adapted to fire and need some burning to remain healthy, however frequent and intense fires pose a risk. Other vegetation communities and species are not well adapted to fire and only persist because they are naturally protected against fire by aspect or presence of moisture. Uncontrolled frequent and intense

fires have the potential to encroach into fire sensitive communities and change floristic structures and species composition over time. Some species may also disappear from the Reserve under such a fire regime.

Obligate seeders are plants that can only regenerate after fire from seed. Obligate seeders (such as *Eucalyptus oreades*, which is uncommon in the Reserve), are particularly vulnerable to fire - If fires are too frequent plants cannot reach maturity to set seed and species persistence may be threatened. Populations of obligate seeders in Hassan Walls Reserve (such as *E. oreades*,) may disappear from the Reserve if not protected from frequent and / or intense fires.

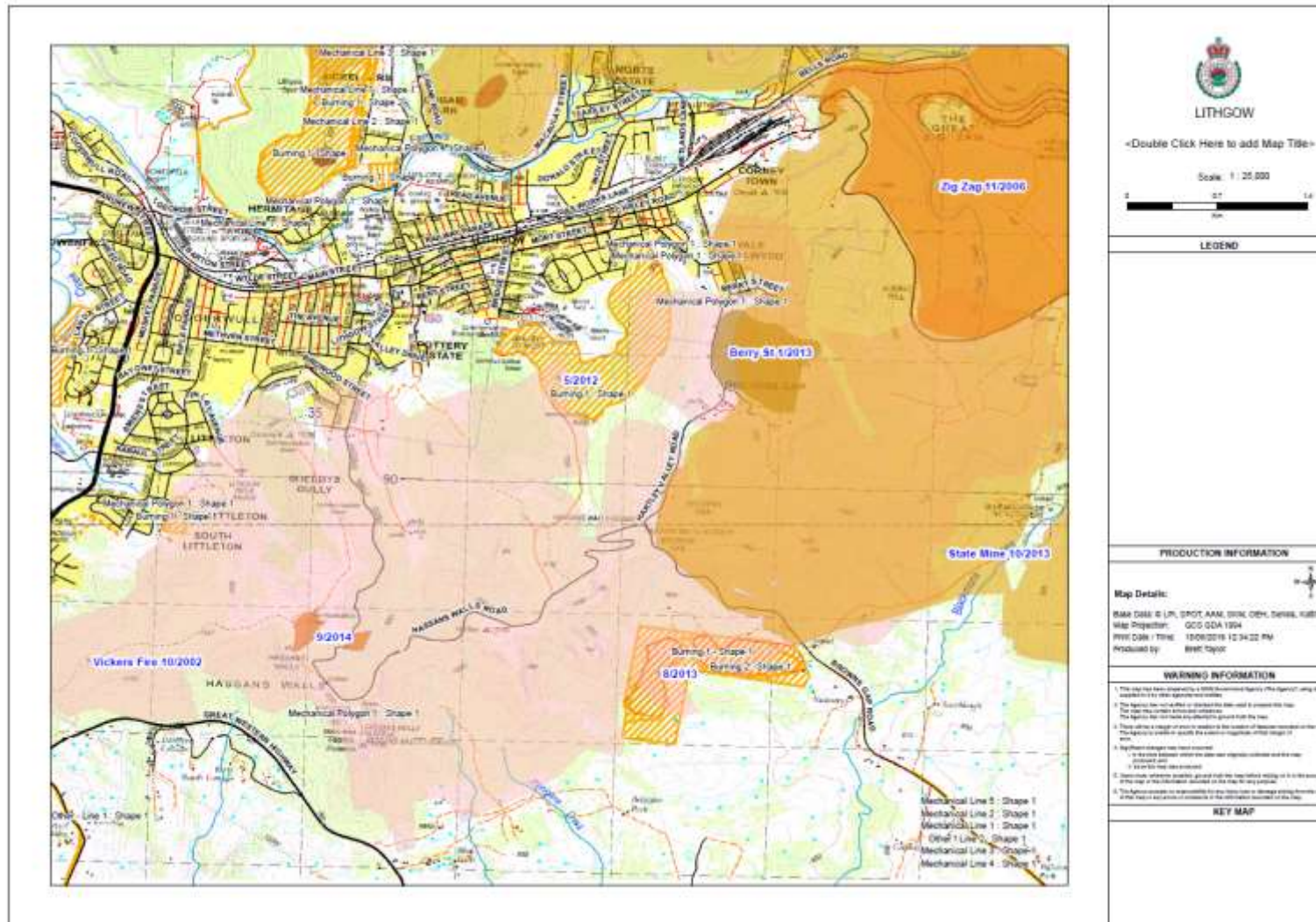


Figure 5 – Map of fires in Hassans Walls Reserve since 2006

Source – NSW Rural Fire Service (Brett Taylor, pers. comm.)

## 6. Cultural Heritage Values

### 6.1 Aboriginal Cultural Heritage

The Reserve lies close to the boundary of the traditional lands of the Darug and Wiradjuri Aboriginal People who would have occupied the area prior to European settlement. Before European settlement the Reserve is likely to have consisted of forest and woodlands, rocky outcrops and escarpments with contained feeder creeks running into the downstream watercourses.

The NSW Office of Environment and Heritage maintains the Aboriginal Heritage Information Management System (AHIMS). The AHIMS includes:

- information about Aboriginal objects that have been reported to the Director General, Department of Premier and Cabinet
- information about Aboriginal Places which have been declared by the Minister for the Environment to have special significance with respect to Aboriginal culture
- archaeological reports.

AHIMS has operated since the 1970s, and as at June 2011 contained detailed information on 67,000 recorded sites and 10,700 archaeological and other Aboriginal heritage reports.

The AHIMS records do not include any Aboriginal sites or Places in Hassans Walls Reserve. That is not to say that no such sites exist or that there is no evidence of Aboriginal occupation and use of the Reserve. Interpretive material at Hassans Walls Lookout notes that middens and rock art are present in the Hassans Walls Reserve however the Wiradjuri traditional owners desire that the location of such sites is not publicly disclosed.

### 6.2 Historic Heritage

How often the early residents of Lithgow and surrounds visited Hassans Walls is largely unknown, however the 1882 gazettal as a recreation reserve of a 143 hectare area encompassing the highest escarpments and adjacent lowlands indicates the area was being visited.

A 1998 *Blue Mountains Walking Track Heritage Study* by the NSW National Parks and Wildlife Service notes that three walking tracks were constructed around the time of WWI by brothers Richard and Thomas Merrick for the Lithgow Progress Association. One track leading from Hassans Walls Road in Lithgow township to the Hassans Walls Lookout was built in 1910, an easterly track from Hassans Walls Lookout to Browns Gap Road (known as “Browns Gap Track”) was built in 1915, and Heffernans Pass (a westerly track leading to a ridge overlooking Old Bowenfels) was built in 1915-6. A range of visitor facilities including shelter pavilions and seating are also reported as being constructed around this time. The walking track to Hassans Walls Lookout and through to Browns Gap Road was upgraded to a dirt road as part of an Unemployment Relief programme, chiefly using manpower and some explosives, during the 1930s. Although some sections of the Browns Gap Track, and the first section of the 1915-16 Heffernans Pass, remain intact other parts of these routes have been substantially altered, and none of the three original walking tracks are regarded as having heritage significance.

The *Blue Mountains Walking Track Heritage Study* also describes the Hassans Walls Undercliff Walking Track, which commenced at the 1912 shelter shed (called the “Centenary Pavilion”) then ran east/north-east to descend into Hassans Glen and extended beneath the cliff line at Hassans Walls Lookout and west past Rutherford Glen at the approximate western end of the main escarpment. The walking track was constructed between 1916 and 1920. The glen sections of the track are recorded as containing “fine stone staircases”. This track is regarded as of historical significance at a regional level as one of the most westerly examples of track making in the Blue Mountains with the stone staircases regarded as

having aesthetic significance comparing well with the best examples elsewhere in the Blue Mountains. After being officially reopened to public access in 1990 the track was closed in 1992 due to public safety concerns arising from rockfalls.

The Hassans Walls Reserve track system is the most westerly example of the Blue Mountains tourist track building phenomenon of the early 1900's. The walking tracks are evidence of the attempts by the Lithgow Progress Association to create nature based tourist attractions in the industrialised pre WWI Lithgow.

A plinth with a directional dial display indicating places and points of interest visible in the distance – known as the Padley Memorial Direction Dial – was erected at Hassans Walls Lookout in October 1929. The directional dial is no longer evident, however the plinth remains (albeit in poor condition) adjacent to the lookout boardwalk.

Many of the visitor destinations within Hassans Walls Reserve are named after prominent locals such as James Padley, Major H Bracey and ex Prime Minister Joseph Cook. There is some existing interpretive information at both Hassans Walls Lookout and Bracey Lookout and a range of historic photos of Lithgow township at Bracey Lookout.

A local amateur historian and author has commenced researching the background to walking tracks, caves, lookouts and other features of the Reserve (K Painter, pers. comm.). This information could provide a source for potential interpretation of the history of the Reserve and by association, the township of Lithgow.

#### NSW Heritage Register Listing

The NSW Office of Environment and Heritage maintains the State Heritage Register - a list of places and objects of particular importance to the people of NSW. The register lists over 1,650 items, in both private and public ownership. Listing on the State Heritage Register means the item:

- is of particular importance to the people of NSW and enriches understanding of our history and identity;
- is legally protected as a heritage item under the NSW *Heritage Act 1977*
- requires approval from the Heritage Council of NSW for major changes
- is eligible for financial incentives from the NSW and Commonwealth governments.

Hassans Walls Reserve contains one site included on the NSW State Heritage Register – known as the Lithgow Heavy Anti Aircraft Gun Stations and Dummy Station complex (Listing Number 01862, gazettal date 5 August 2011). Only the Dummy Station included as part of this Heritage complex is within the Reserve. The Statement of Significance in the Heritage Register notes:

“The Lithgow Anti Aircraft Gun Stations and Dummy Station have state significance as the only known inland heavy anti aircraft gun stations of their type in NSW. The emplacements were introduced as an important part of the network of defence sites established at Lithgow during the latter half of World War Two. The defences were introduced to protect Lithgow's important mining, manufacturing and transport industries and the Lithgow Small Arms Factory.”

The Register describes the Dummy Station as comprising:

“at least two examples of dummy gun emplacements are known to exist near Hassans Wall Road at Lithgow. The dummy emplacements are located in small clearings with small, scrubby, native plantings. Raised octagonal cement platforms with a central iron pipe located in the centre cut off to the height of the platform are located on a larger circular base appearing to consist of sand, cement, slag and other materials



that have now broken down to form a loose surface that has deteriorated significantly. Overall, each dummy emplacement has a diameter of approximately six metres.”

The Register listing makes no recommendations on the need for conservation measures to protect or maintain the dummy stations.



*Remains of the Anti Aircraft Dummy Station, west of Norman Henry Drive*



*Remains of the plinth (the Padley Memorial Direction Dial) at Hassans Walls Lookout*

## 7. Visitor Use and Recreation Values

Hassans Walls Reserve is a valued and popular destination offering a range of passive and active recreational opportunities for local and regional visitors. A growing population within the Local Government Area and the Sydney region is, anecdotally, placing increased demand on Hassans Walls Reserve as a recreational venue. This increased demand can create both conflicts in the type of activities undertaken (or competing demands for intended uses) as well as concerns about equitable access to and recreational use of the Reserve.

### 7.1 Visitor Use Levels

To attempt to gain an understanding of the number of visits to the Reserve, Lithgow City Council and Gondwana Consulting implemented a short visitor monitoring program in June and July. By its very nature any such program will provide only a snapshot of the number of people visiting the Reserve at a given time.

The visitor monitoring program involved:

- Installation of traffic counters on Hassans Walls Road at the Lithgow and Browns Gap Road entry points, on the access track to Hassans Walls Lookout and on Norman Henry Drive to Bracey Lookout Road (see Figure 6 below).
- The counters were installed at 9 a.m. on Monday June 6 and removed between 4 and 7 pm on Monday 20 June. (To allow for accurate comparison the data for each site presented below includes up to 4pm on Monday 20 June, 2016.)
- Installation of an infrared people counting device at the start of the 4WD Track that leads west off Hassans Walls Rd and also on the track to the closed second lookout. At both locations the counter was installed in proximity to the gated barrier across each track. The counter was in place for one week at each location. A counter was not installed at Hassans Walls Lookout as a discrete and secure location was not achievable.

The location of the traffic counters not only recorded the number of vehicle passes over time at each point within the Reserve but also allowed for the identification of movement patterns within the Reserve. The counters were set to record data at 15 minute intervals and hence provide a picture of visitor numbers throughout the day.

When using traffic counts to estimate total visitor numbers to a site a generally accepted industry standard is that each vehicle carries, on average, 2.5 passengers. The application of this ratio to vehicle numbers allows an estimate to be made of actual visitors, travelling by vehicle, to Hassans Walls Reserve. Given the Reserve contains only two vehicle points of entry a more accurate estimate is possible than would otherwise be the case.

The visitor monitoring snapshot highlighted the following:

- Hassans Walls Reserve is a popular destination with an estimated 2,245 people visiting by vehicle in a two week period (including a long weekend) in June 2016. (Note that during the two week period there were several instances of days of cold and wet weather which is likely to have impacted on visitation to the Reserve.)
- The vast majority of vehicular access and egress is via Hassans Walls Road at Sheedys Gully, Lithgow.
- Hassans Walls Lookout is the most popular destination, receiving just under 70% of all vehicle based visits.



**Figure 6 – Location of traffic counters**

Source: Lithgow City Council

- Approximately 30% of vehicle based visits are to Bracey Lookout.
- Unsurprisingly, there was a significant increase in visitors on the June holiday long weekend with an approximate 300% increase on Saturday and 500% increase on Sunday relative to the preceding weekdays.
- Over the two week period, just under 50% of vehicle based visits occurred between 1 and 5 p.m.
- The two hour period of 4 – 6 p.m. prior to and including sunset received approximately 20% of vehicle based visits.
- Over the two week period, a total of 35 vehicles entered the Reserve between 9pm and midnight and 15 between midnight and 6 a.m.
- There was a marked increase in the use of the monitored recreational trails on weekends.

## 7.2 Access and Visitor Uses

Hassans Walls Reserve is a generally undeveloped setting offering the opportunity for a variety of passive and active nature based recreational activities in a mostly uncrowded social environment. Local residents of Lithgow value highly the undeveloped and uncrowded nature of the Reserve, combined with its proximity to the township.

Access to the Reserve may be gained from Hassans Walls Road via either Lithgow township or by turning off Browns Gap Road. Although being “tar-sealed” in the late 1930s, today Hassans Walls Road has a surface that is variously compacted natural soil or in-situ material and mostly imported gravel fill (although some fragments of the former sealed surface remain). It is suitable for two wheel drive vehicles. A short narrow spur two wheel drive dirt road provides access to the primary attraction of Hassans Walls Lookout. Norman Henry Drive provides access off Hassans Walls Road to Bracey Lookout overlooking Lithgow and is mainly a compacted natural dirt surface although some steeper sections have been bitumenised in the past.

Hassans Walls Reserve contains two (accessible/promoted) recreational nodes where visitor facilities are located – Hassans Walls Lookout and Bracey Lookout. These nodes are the key sites that the vast majority of visitors to the Reserve access.

There is a network of walking tracks and mountain bike tracks throughout the Reserve based on the roads, 4WD standard access tracks to communication towers and other infrastructure and an indeterminate number of informal tracks presumably established by walkers and mountain bike riders.

Hassans Walls Reserve also plays a significant regional role in meeting the demand for competitive downhill mountain bike riding as the purpose built “Pony Express” tracks is used for the NSW mountain bike State Championships. This track is the only downhill mountain bike track in the Reserve that has been formally approved by Council rather than being established by ongoing use.

### **7.3 Hassans Walls Lookout Day Use Area and Environs**

The primary destination for many visitors to the Reserve is Hassans Walls Lookout, located on a south facing escarpment with impressive views over the Hartley Valley including historic Mount Blaxland, the Blue Mountains to the east, and Mount Lambie and the Great Dividing Range to the west towards Bathurst. The site comprises a broad dirt expanse serving as a car park (with one concrete space for people with a disability), several large stone boulders (placed around parts of the perimeter to define/contain vehicle movement), a small sandstone and timber shelter (originally constructed in 1939) with a disused water tank, a garbage bin and a concrete path to a recently constructed 50m elevated boardwalk (fibreglass reinforced plastic deck with a metal superstructure and safety railings) leading to a lookout point. The boardwalk has been named in honour of Sir Joseph Cook, a Lithgow resident who served as Prime Minister for two years prior to WWI. A trig station is within 5m of the lookout point of the boardwalk and impedes viewlines over Hartley Valley. The old plinth, the base of the Padley Memorial Direction Dial (discussed earlier), is also near the lookout point. Two information and interpretive signs at the start of the boardwalk provide a short history of the Reserve and a summary of its values.

A small natural rock cave is visible north-west of the boardwalk and is accessed by an informal track leading from the small shelter near the car park. The cave provides views over the adjacent cliff wall - wire mesh has been erected over its outer opening for visitor safety purposes. Approximately 50% of people were observed to visit the cave after having seen it from the boardwalk.

A second small sandstone and timber shelter is located approximately 100m north of the car park area in a small clearing adjacent to a fenced communication tower. Vehicles are also parked in this area.

A number of small wire fences, some with now faded warning signs attached, have been previously erected at locations along the edge of the escarpment past the boardwalk and near the rock cave. There are also some short sections of newer safety/barrier fencing in the lookout area. Discrete/separate sections of low fences also occur along parts of the escarpment further away from Hassans Walls Lookout and west for up to several hundreds of metres. Some are now obscured by shrubs while others are very obvious - all are decades old and are showing deterioration in condition. Some of the fences may serve to provide a sense of safety and security and encourage visitors to venture further on past the boardwalk construction. Council sought advice in 1993 and again in 2010 regarding the retention or otherwise of the fences.

The length of stay for most visitors to the site is 5 - 10 minutes, with slightly longer stays around dusk as people appreciate the views with the setting sun. The lookout is often the end / turnaround point for locals walking through the Reserve for exercise.

### **Visitor impacts**

Apart from the natural stone bollards the car park is generally ill defined, with the exception of the allocated space for people with a disability. As a result the space available is not efficiently used for parking and at busy times the lack of parking space has resulted in drivers encroaching into adjacent bushland that is known to contain plant species of conservation significance.

The regular emptying of the garbage bin assists in ensuring litter is not a major issue at the site. Rubbish including discarded food packets, drink containers and cigarette butts are most obvious in the fringing bushland and beneath the boardwalk. Used toilet paper is also strewn among the adjacent bushland.

There is track braiding evident between the shelter and the small “cave” and in the bushland north west of the shelter. The walls and roof of the cave are substantially covered in graffiti.

## **7.4 Bracey Lookout Day Use Area**

Bracey Lookout is the second most visited destination within the Reserve, providing views north over the valley and Lithgow township. The access road to this area is steep and narrow where it descends from the primary ridgeline and sections have been surfaced with bitumen, parts of which is failing and causing deep potholes. Several lay bys are evident adjacent to the track to allow for the two way movement of traffic. The lookout can also be reached using the walking track (The Eskbank Track) from Eskbank Street in Lithgow.

Visitor facilities at the site include a defined bitumen parking area for 6 vehicles that abuts a broad compacted gravel / concrete lookout with a low railing on the outside edge. Three picnic tables and seats and a garbage bin are provided. A large interpretive sign provides old photographs of Lithgow and of people visiting this part of the Reserve in the early 1900's. Vegetation has been felled or trimmed over an area approximately 70m by 50 metres downslope of the lookout to facilitate an improved view.

As with Hassans Walls Lookout the average length of stay at the site is 5 – 10 minutes.

### **Visitor impacts**

The formalised nature of Bracey Lookout and the lack of nearby attractions to encourage exploring in the bushland results in visitors confining their activities to the space provided. Consequently visitor impacts are minimal and generally restricted to occasional litter.

The most significant impact at the site is the clearing / trimming of vegetation downslope of the site in order to offer enhanced views. Without clearing of this vegetation the views over Lithgow would be substantially restricted and the function of Bracey Lookout significantly limited.

## **7.5 Second Lookout (Closed)**

A second lookout point on the southern ridgeline of the Reserve was also provided in past years, located approximately 800m north-east of Hassans Walls Lookout. The ridge line descends more gradually than near Hassans Walls Lookout and there are no escarpments in the immediate vicinity of the closed lookout's former access tracks and facilities node. A 150 metre compacted gravel track provided access from Hassans Walls Road to the site. Facilities previously accessible at the site include a gravel access road and carpark(s), a sandstone and timber picnic shelter similar to Hassans Walls Lookout (one of two originally at this site), three roughly built fireplaces, and several concrete and timber picnic tables or seats. The picnic shelter is now unused and in disrepair, as are two old sandstone toilet blocks located in bushland a short distance to the west. The lookout afforded views over the Hartley Valley, although not the same expansive vista as at Hassans Walls Lookout.

Today concrete barriers block the start of the access track and the site is closed to vehicular access. The picnic shelter has significantly deteriorated, such that the main sandstone structure and some timber elements and partial iron roofing is all that remains. The seats are mostly overgrown by the Montane Heath vegetation community and many now lack the timber slats. The area can still be accessed by walkers and bike riders and is receiving a low level of use based on observations and results of the visitor monitoring program in June 2016.

## **7.6 Recreational Trails – Walking and Mountain Bike Riding**

There is a network of recreational trails throughout the Reserve based on the roads, restricted (vehicle) access fire trails and management accesses (mostly 4WD standard access tracks along ridgelines leading to communication towers and other infrastructure), an approved downhill mounting bike track (The Pony Express), and a number of informal tracks presumably established by Reserve users (some of which provide linkages to the urban areas of Lithgow). Together the roads, fire trails and management accesses, informal trails as well as linkages to the urban areas provide an extended network of recreational trails.

Mountain bike riding and casual walking, nature enjoyment/appreciation and dog-walking (on leash) are the main uses of this track network. Less frequent uses include jogging or fitness training, and educational activities.

The primary recreational track/trail routes within the Reserve are illustrated in Figure 7 and include:

- Hassans Walls Road (a public road within a separate road reserve) and Norman Henry Drive. The section of Hassans Walls Road between the Sheedys Gully entry and Hassans Walls Lookout is used daily by local residents walking, running for exercise or cycling.
- Fire trails and management accesses (many accessing communications towers and transmission lines within the Reserve) – the gravel road (now closed) to the Second Lookout, the Channel 6 Trail and Donnybrook Trail in the west, vehicle tracks along the lower section of Sheedys Gully, and the Townhouses Trail in the north-east.
- The Eskbank Walking Track, constructed between Eskbank Street and Bracey Lookout.
- The Pony Express Track, an approved downhill mounting bike “single” track from Hassans Walls Road (near the turn-off to Hassans Walls Lookout) to the head of Sheedys Gully.
- Several informal/unapproved “single” tracks, established and maintained through mountain bike use (almost exclusively). These include – the “Donnybrook Track” (a westward extension of the Donnybrook fire trail), the “Pottery Track”, the “Ewok Forest Track”, the “Townhouses Track” (a northwards extension of the Townhouses fire trail), and the “Gun Club Track” (to be closed as a development approval condition for The Pony Express Track), several informal tracks paralleling and criss-crossing fire trails/management accesses, a number of informal tracks connecting from ridgeline end-points of fire trails/management accesses to and from the nearby urban areas of Lithgow, and possibly other unmapped/“unknown” tracks.

This network of roads, 4WD tracks and other track/trails provide a range of walking and mountain bike routes of varying lengths and standards. The multiple entry points to the recreational track network means the Reserve is very accessible which adds to its levels of use and value for walking and mountain bike riding.

### **Walking**

Although actual user numbers are not available, walking and associated activities are believed to be one of the largest and most frequent recreational uses of the Reserve. Recreational or social walking, dog-walking (on-leash) and fitness training are popular activities.

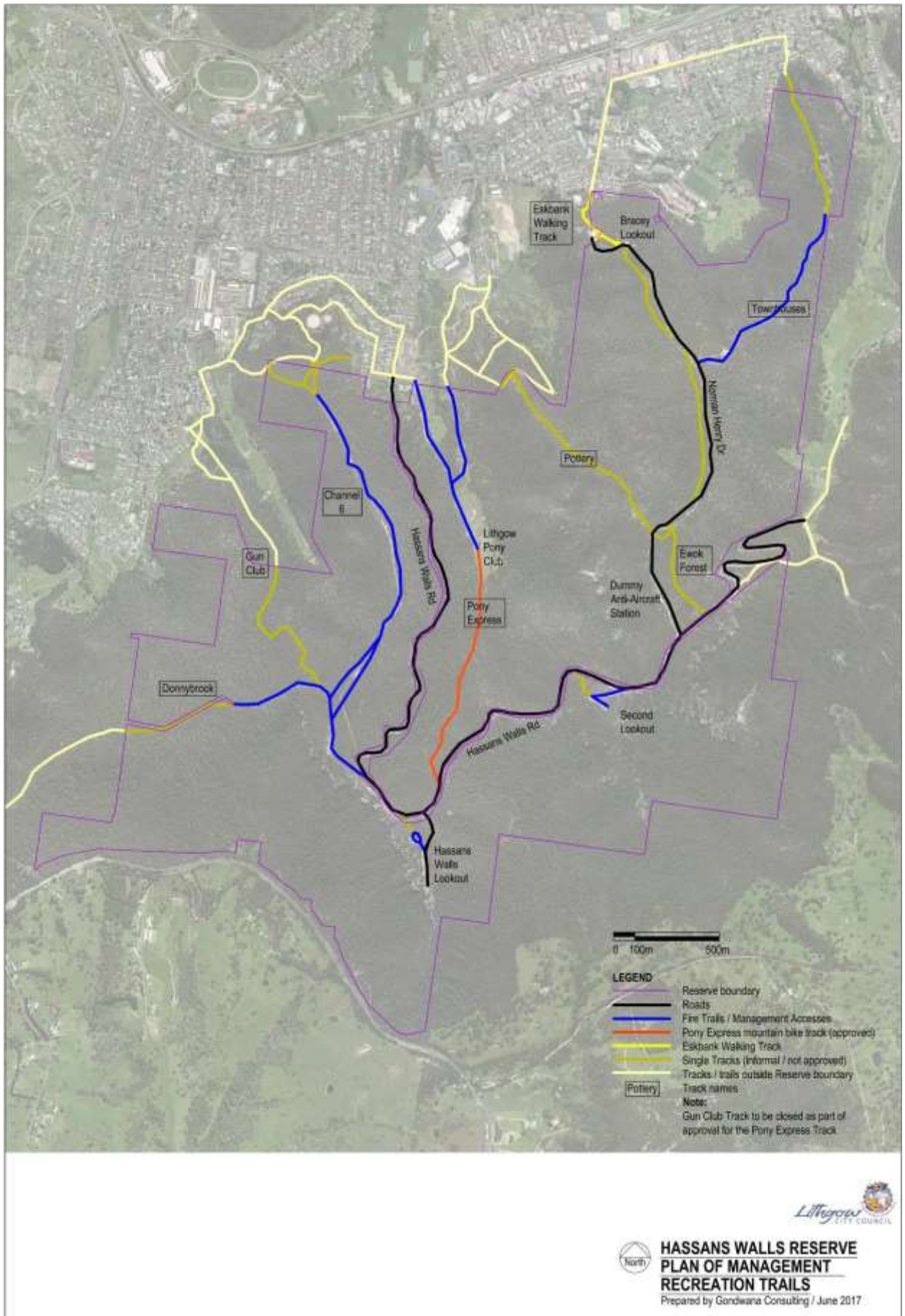


Figure 7 – Recreation trails in and around Hassans Walls Reserve

This is despite the Reserve's lack of dedicated, walkers-only, tracks or routes. The short Eskbank (Walking) Track is the only dedicated walking track at present within the Reserve (other than the short path and new elevated boardwalk at Hassans Wall Lookout). Hassans Walls Road from the Sheedys Gully entry to Hassans Walls Lookout appears the most popular route for walkers.

The former Undercliff Walking Track, which extended from Hassans Glen in the east to pass below the Hassans Walls Lookout and continue westward past Rutherford Glen, was closed in 1992 due to public safety concerns – although sections of this route remain. Several other former walking track routes have been similarly closed (or overgrown) – such as the ridgetop track between Hassans Walls Lookout and the Second Lookout, and Heffernans Pass.

## **Mountain Bike Riding**

Along with walking, mountain bike riding is one of the most popular recreational activities in the Reserve. Mountain bike riders are one of the Reserve's more organised user groups, with the Central Tablelands Mountain Bike Club promoting the area and maintaining high levels of communication among the Reserve's many mountain bike users. Mountain bike riding is experiencing a growth in the number of participants.

The Central Tablelands Mountain Bike Club has a membership of around 120 people from Lithgow, the Blue Mountains and Bathurst with approximately 30% preferring downhill riding. The Club's website lists a total of 13 trails within the Reserve of varying standards and ranging in length from 490m to 3 kilometres. The Club's President advises that most of the off road / track trails are regarded as upper intermediate to advanced standard. The Club's website also indicates the numerous opportunities for mountain bike riding in the Region listing 16 sites in the Blue Mountains and 12 locations in the Central Tablelands.

The "heat map" in Figure 8 indicates the location of trails used by mountain bike riders and the relative use levels. The map is based on data uploaded by riders to an Application that records their use and maps the route. Routes are indicated by blue lines – a thicker line indicates a higher level of use. The period of use that the map represents is not known however it clearly illustrates the most popular routes within the Reserve.

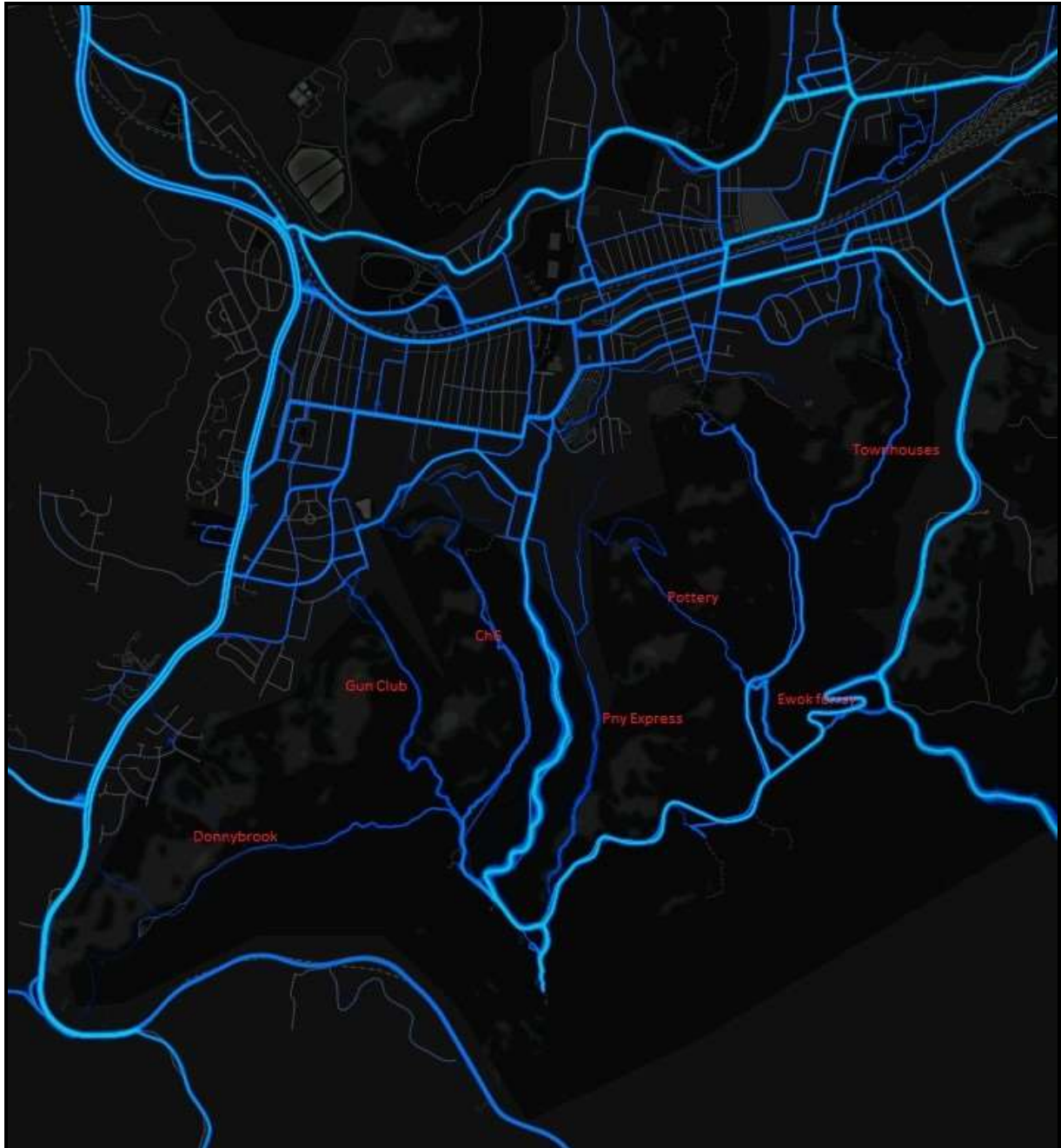
Riding along Hassans Walls Road to Hassans Walls Lookout appears the most popular route followed by riding the length of Hassans Walls Road to Brown Gap Road. Norman Henry Drive and the various 4WD access tracks are also well used.

In 2009 the Central Tablelands Mountain Bike Club obtained Lithgow City Council approval for the construction of a mountain bike trail in the Reserve. The trail, known as Pony Express, runs from Hassans Walls Road near the turnoff to Hassans Walls Lookout downhill on the eastern side of the gully and terminates near the Lithgow Pony Club in Sheedys Gully. The Development Approval contained a number of conditions relating to track construction and maintenance, environmental impacts and their management and requirements during major events.

## **User conflicts**

Few collisions or conflicts between riders and walkers are reported to the Reserve managers each year, and no serious injuries are known to have been sustained. The road and fire trail/management access routes provide sufficient room and visibility to allow riders and walkers to share these routes. "Single track" sections present a somewhat greater risk – due to the narrower track widths, usually little or no passing or step-off space, sharp or blind corners, loose or uneven track surfaces and steeper slopes in places. These risks are exacerbated on downhill sections due the higher speed of riders and less time to react to the presence of a walker, particularly when sight lines along the track ahead are limited. As a result most walkers are deterred by mountain bike use of single tracks – especially downhill tracks – and avoid these routes. This exacerbates the Reserve's lack of dedicated, or attractive, walking tracks/routes.





**Figure 8 – “Heat Map” of mountain bike trail usage in and around Hassans Walls Reserve**

*(Source: Craig Flynn, President, Central Tablelands Mountain Bike Club)*

## **7.7 Horse Riding**

The Lithgow Pony Club has occupied an area of the Reserve in the lower part of Sheedys Gully since the 1970's for the purpose of conducting equestrian sports and events, instructing people in horse riding and other ancillary activities. The first lease over the site was established in 1978 and permitted, with Council consent, the construction of buildings, fences and levelling of land to facilitate the proposed use. Subsequent leases ensued the most recent lease expired in 2010. At this time Council elected to implement a Licence pending completion of the Plan of Management for Hassans Walls Reserve.

The site is accessed from Hassans Walls Road (outside the northern boundary of the Reserve) via a dirt road that initially passes through private lands currently subject to subdivision and development for housing. Horses are not stabled on site.

The leased / licenced area contains both undisturbed native vegetation and a large generally level cleared area with introduced grasses. The cleared area is used by the Lithgow Pony Club and the surrounding vegetated areas appear little disturbed or impacted by Pony Club activities. The Pony Club has invested in a number of facilities at the site including a small clubhouse / canteen, yards, an equestrian event ring with adjoining spectator seating, a second sand equestrian ring and a large car park with a blue metal surface. Some piles of blue metal have been pushed into the adjoining vegetation. The whole site shows evidence of an established rabbit population and there are several clumps of Blackberry along the access track and scattered throughout the cleared area.

The Pony Express mountain bike trail terminates several hundred metres upslope from the area used by the Lithgow Pony Club and bike riders and walkers regularly walk through the area en-route back to Hassans Walls Road. The Central Tablelands Mountain Bike Club and the Lithgow Pony Club have agreed that mountain bike riders will dismount and walk through the Pony Club area when horses are present.

## **7.8 Other uses**

There are a number of other uses of the Reserve not addressed above including –

- A free-standing house is located in the lower part of Sheedys Gully, within the area now used by the Lithgow Pony Club. The building came into Council ownership when the Lithgow Valley Colliery Co land on which it is located was transferred to Council. The house is currently occupied and subject to a separate lease arrangement.
- Recreational use of areas of the Reserve adjoining urban area by local children for bush play.
- Use for specific recreational events such as that recently proposed by ParkRun involving regular timed runs.
- Cliff recreation such as rock climbing and abseiling are currently occurring on an infrequent basis.
- Occasional use for training by the local State Emergency Services and other organisations including the Mine Rescue Station.

## **7.9 Unauthorised Activities**

The dumping of rubbish on roadsides within the Reserve is an ongoing and regular occurrence. Popular locations include the Hassans Walls Road verge near the Reserve boundary at Sheedys Gully and at several other roadside clearings near the Hassans Walls Lookout. Dumped rubbish is generally domestic garbage in bags, household waste such as furniture, mattresses and the like or green waste from gardens. There are a number of old car bodies that have been pushed over an escarpment past the Norman Henry Drive turnoff. Lithgow City Council generally responds quickly to reports of dumped rubbish and it is typically removed within one business day. The few garbage bins within the Reserve are also serviced regularly and do not generally have heaped garbage near them.

The type of rubbish and locations used suggests rubbish is being dumped from vehicles. The traffic counters placed in the Reserve in June 2016 recorded a low number of vehicles entering the Reserve between dusk and dawn.

The collection of firewood from within the Reserve was raised as a concern by community members, although no locations were specified. Other activities reported as occurring in the Reserve include graffiti, vandalism of facilities, unauthorised fires and parties.

## **7.10 Information, Interpretation and Education**

A small brochure available at the Lithgow Visitor Information Centre and limited information on several tourism webpages appear to be the only pre-visit information available regarding the recreation activities on offer at Hassans Walls Reserve.

The exception to this is information relating to mountain bike riding opportunities at the Reserve which are well documented, primarily on the Central Tablelands Mountain Bike Club website. The mountain bike community is well organised and networked with up to date web pages highlighting the mountain bike opportunities the area offers.

Once on site, information is generally limited to the interpretive signs at Hassans Walls and Bracey Lookouts. Finger board signs provide directions to the Hassans Walls Lookout and Bracey Lookout. There is an absence in the Reserve of information regarding available recreation opportunities such as walking or mountain bike riding.

The provision of updated orientation and interpretive information throughout the Reserve would significantly improve visitor appreciation and enjoyment of the natural and cultural features of the area. This could be in the form of orientation information placed at strategic locations such as entry points and key (publicly accessible and promoted) two lookouts. Other opportunities include the development of an online webpage dedicated to the Reserve and / or an Application containing orientation and interpretive information that could be used by visitors prior to and during visits to the Reserve.

Being located on the doorstep of Lithgow the Reserve is well placed to be used for educational purposes by local schools and other education institutions. The Reserve provides an opportunity for general community education regarding the natural environment, recreational activities and the management of natural areas.

## 8. Landscape and Amenity Values

The altitude of Hassans Walls Reserve, its vegetated ridgelines and associated escarpments and their relief from the Lithgow and Hartley Valleys makes the Reserve a highly visible natural area to travellers on the Great Western Highway and residents of, and visitors to, Lithgow and the Hartley Valley. Due to its proximity the Reserve contributes to the sense of place and visual amenity of the Lithgow urban area, serving as an aesthetic backdrop on the southern edge of town. The proximity of the Reserve to town is highly valued by residents for its recreational opportunities and the ability to escape and unwind from the pressures of day to day life.

The presence of numerous communications towers detracts from the natural views of the Reserve as by their nature the towers are located in prominent positions.

The views from Hassans Walls Reserve to the Hartley Valley and east to the Blue Mountains and other features of the Great Dividing Range are a significant feature of the Reserve. The views available from Hassans Walls Lookout are the most commonly identified value for the Reserve for locals and visitors alike. Continued subdivision and increased development intensity in the Hartley Valley and other lowlands visible from the Reserve has the potential to alter the aesthetic values of the view.

The Reserve contributes to the quiet bushland character of parts of Lithgow township, particularly for residences located in neighbouring streets, or that are near neighbours.

### 8.1 Mining Subsidence and Cliff Instability

The Reserve is underlain by extensive mining activity (from 120 to 180m beneath the surface) associated with both the Lithgow Valley and Hassans Walls Colliery Workings. Mining beneath the Reserve appears to have not occurred since the early 1970's. There have been a number of escarpment rock falls and there are innumerable cracks in the sandstone surface rock that are obvious at Hassans Walls Lookout and the escarpment to the west. The exact extent and depth of such cracks on all of the exposed sandstone formations in the Reserve appears to be largely unknown.

In 1984 the NSW Mine Subsidence Board engaged Coffey & Partners Pty Ltd to undertake a geotechnical assessment of reported subsidence related cracking in the Reserve. The assessment was restricted to the section of cliff line and adjoining rock outcrops west from an area termed the Eastern Promontory (the ridge east of the now closed Second Lookout) to the western end of the cliff line (west of Hassans Walls Lookout). The assessment located and mapped cracks and recorded data on crack orientation, width and in some cases depth. The report identified the most dangerous areas as a small promontory near the junction of Hassans Walls Road and the gated fire trail heading west, an area immediately west of the Trig Station at Hassans Walls Lookout and most of the area termed Eastern Promontory. The report recommended fences be erected in the most dangerous areas.

In 1998 Council approached the NSW Mine Subsidence Board regarding mine subsidence and rock formation cracking and potential impacts of ongoing recreational use of the Reserve. Field inspections were undertaken at this time. Notes and outcomes of that assessment of the reserve include:

- Cracks are up to 0.5m wide.
- Mining has impacted upon the surface environment within the Reserve, although natural weathering processes have also had an impact. It is difficult to apportion the extent of the cracking to either mining or natural processes.
- Rock falls had occurred from small escarpment edges in the Reserve and were associated with areas of subsidence cracking through intact rock. .
- Effects of cliff line instability might continue to occur for many years.

The process appears to have been inconclusive in determining the extent of the cracks and the potential for ongoing rock falls and the associated risk to visitors to the Reserve.

The Undercliff Walk was previously closed to public access, in 1992, due to concerns over rock falls injuring visitors.

## 9. Assets and Infrastructure

The Reserve contains five communications towers owned by a variety of organisations. Four of the towers are licensed by the Australian Communications and Media Authority (the Prime TV tower in Lot 1 DP 1094395 is not as yet licenced) however their presence within the Reserve must also be leased / licensed by the Minister for Lands. The issuing of such licenses will need to be addressed and authorised by the Plan of Management.

Each tower owner can elect to issue co-user licenses to other organisations for the erection of their own facility on the tower. Figure 9 overleaf illustrates the location of each tower licenced by ACMA and provides information on the tower owner and co-users. The ownership of the tower labelled as 1 in Figure 9 is unclear.

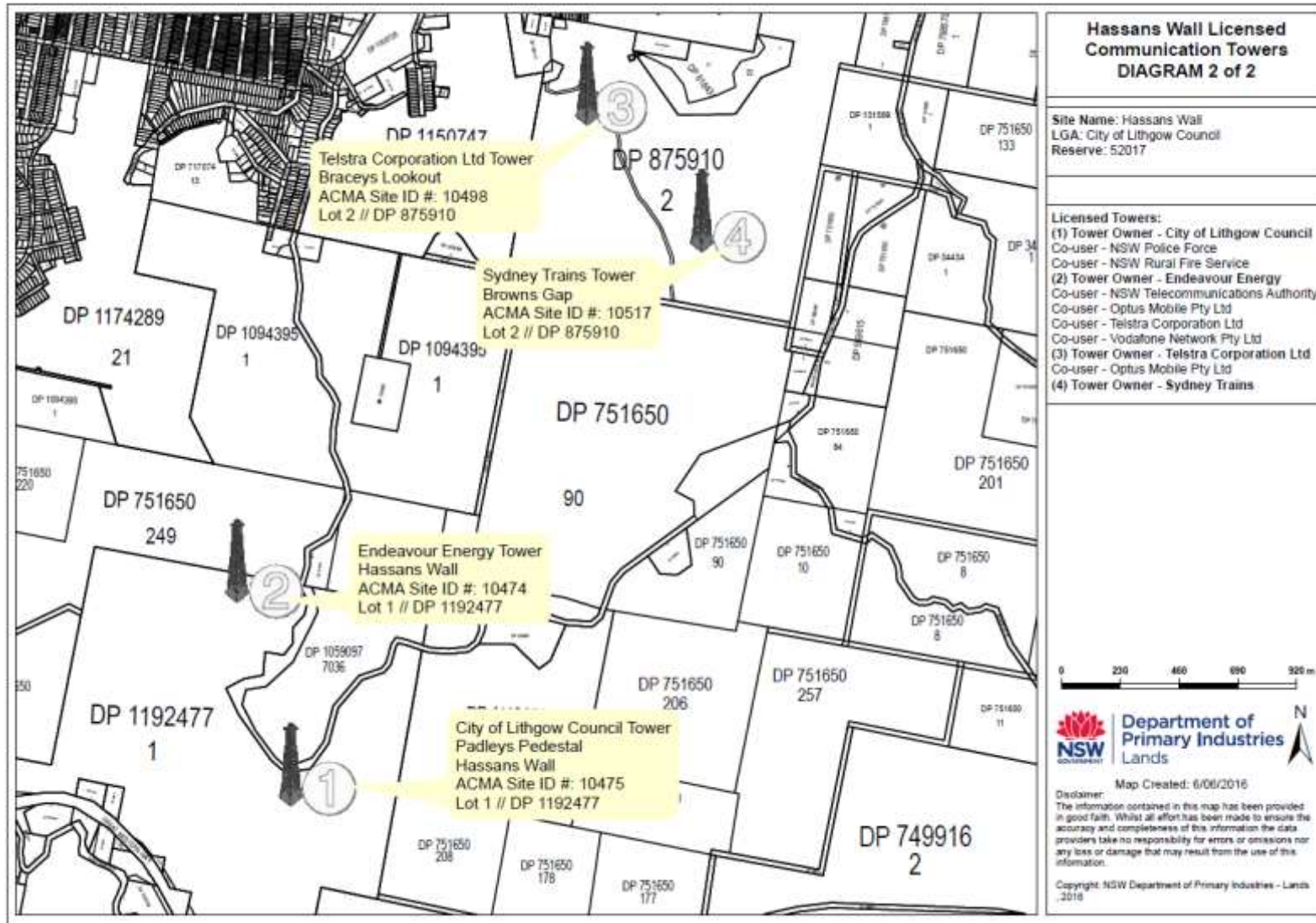
The ongoing operation of the communications facilities on the towers within the Reserve is essential for the continued provision of services to the community of NSW.

Endeavour Energy maintain three high voltage powerlines and eight substations within the Reserve to provide power to each of the communications towers. No easements exist for these powerlines, however the *Electricity Act 1995* provides access rights to the assets in the Reserve.

Ground inspections of the powerlines are undertaken every 4 -5 years with aerial inspections carried out annually. Endeavour Energy's maintenance regime generally involves a 9m access (centred on the poles) being maintained for smaller lines and an 18m access for larger powerlines. Vegetation is typically cleared / trimmed within this envelope to ensure asset integrity.



*Sir Joseph Cook Boardwalk, Hassans Walls Lookout*



**Figure 9 – Licenced communication towers in Hassans Walls Reserve**

(Note: An as yet unlicensed communications tower is also located in Lot 1 DP 1094395 – not shown above)

# Part C - Management Framework

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Part C outlines the framework within which Hassans Walls Reserve is to be managed. Consistent with requirements of the *Local Government Act, 1993* the Reserve has been categorised and the associated objectives listed. For management purposes the site has been divided into four Management Zones based on natural attributes and proposed land management practices. General management strategies have been provided for the entire site and specific management strategies are proposed for each Management Zone. A Concept Masterplan is also contained in Part C.





## 10. Land Categorisation

A central requirement of the *Local Government Act 1993* is that all Community land must be assigned to one or more land “categories”. Land categorisation defines how Council will manage certain parcels of land. Each category has an associated set of objectives for land so categorised.

Whilst not all lands covered by this plan of management are community lands administered under the *Local Government Act 1993*, the entire Reserve has been categorised to provide a consistent management approach across both Community and Crown land managed by Council. The categorisations of Crown land, while not legislatively supported by the *Local Government Act 1993* in this instance, still provide a clear management direction for Council and the community. This approach has also been applied to Hassans Walls Road – which is located in a separate road reserve (despite running to, and through, the Reserve).

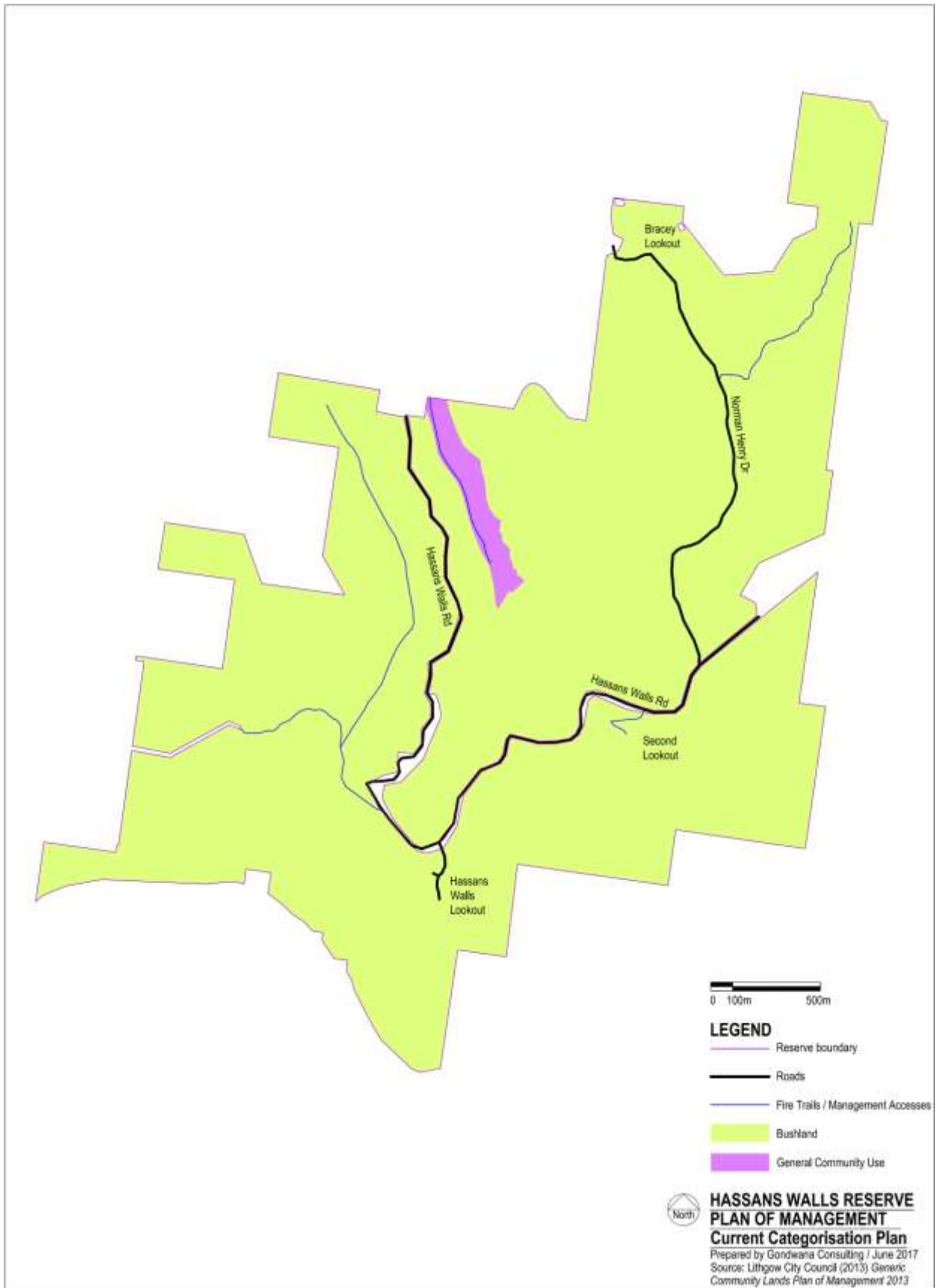
In 2012 the NSW Government initiated a review of the management of Crown Lands within NSW, the outcome of which is the Crown Land Management Bill 2016. The Bill will consolidate a range of existing Crown Land legislation into a single Act (assuming the Bill is passed into law). The Bill continues to allow land to be vested in local councils and enables local councils to manage Crown reserves under the provisions of the *Local Government Act 1993*. The categorisation of Crown lands in accordance with the *Local Government Act 1993*, as proposed in this Plan of Management, is consistent with the provisions of the Crown Lands Management Bill 2016.

The Community land parcels of Hassans Walls Reserve were previously categorised in Council’s Generic Community Lands Plan of Management, 2013 - as variously Bushland and General Community Use (as shown on Figure 10). The categorisations in the Generic Community Lands Plan of Management, 2013 will no longer apply to the Community land parcels in Hassans Walls Reserve upon adoption of the Hassans Walls Reserve Plan of Management.

Table 6 indicates the categorisation of Community lands in the Generic Community Lands Plan of Management, 2013 and the categorisations proposed in this Plan of Management.

Community Land Parcel	Category in Generic CL PoM, 2013	Proposed category in Hassans Walls Reserve PoM	Public Hearing Required
Lots 2 and 3, DP 251935	Bushland	Bushland	No
Lot 1, DP 1094395 and Lot 1, DP 251935	Bushland and General Community Use	Bushland and General Community Use	No
Lot 2, DP 1094395	Bushland	Bushland	No
Lot 90, DP 751650	Bushland	Bushland and Escarpment	No. (as per sect. 40(A)2 of the <i>LG Act 1993</i> )

**Table 6 – Categorisation of Community Land**



**Figure 10 – Current Community Land categories (Generic Community Lands Plan of Management, 2013)**

The *Local Government Act 1993* requires that a council must hold a public hearing in relation to a proposed plan of management (including a plan of management that affects lands within an existing plan of management) if the proposed plan would have the effect of categorising, or altering the categorisation of, community land. Such a public hearing is typically held during the public exhibition of the relevant Draft Plan of Management and provides the community with the opportunity to make formal comment on the categorisations proposed within the Draft Plan of Management. However, section 40(A)2 of the *Local Government Act 1993* provides that a public hearing is not required if the proposed plan would merely have the effect of altering the categorisation of the land under section 36 (5) - that is, a public hearing is not required if categorisation changes are made between any of the categories of bushland, wetland, escarpment, watercourse, and foreshore (as in the case of the proposed categorisations within Lot 90, DP 751650, as shown in Table 6).

The proposed categories for Hassans Walls Reserve are shown in Figure 11. The objectives for each category give a broad strategic direction for management of this land, which is the same for all categories across NSW. Policies relating specifically to Hassans Walls Reserve have been developed in accordance with core objectives of the *Crown Lands Act 1989*, *Local Government Act 1993* and in response to the values of the Reserve.

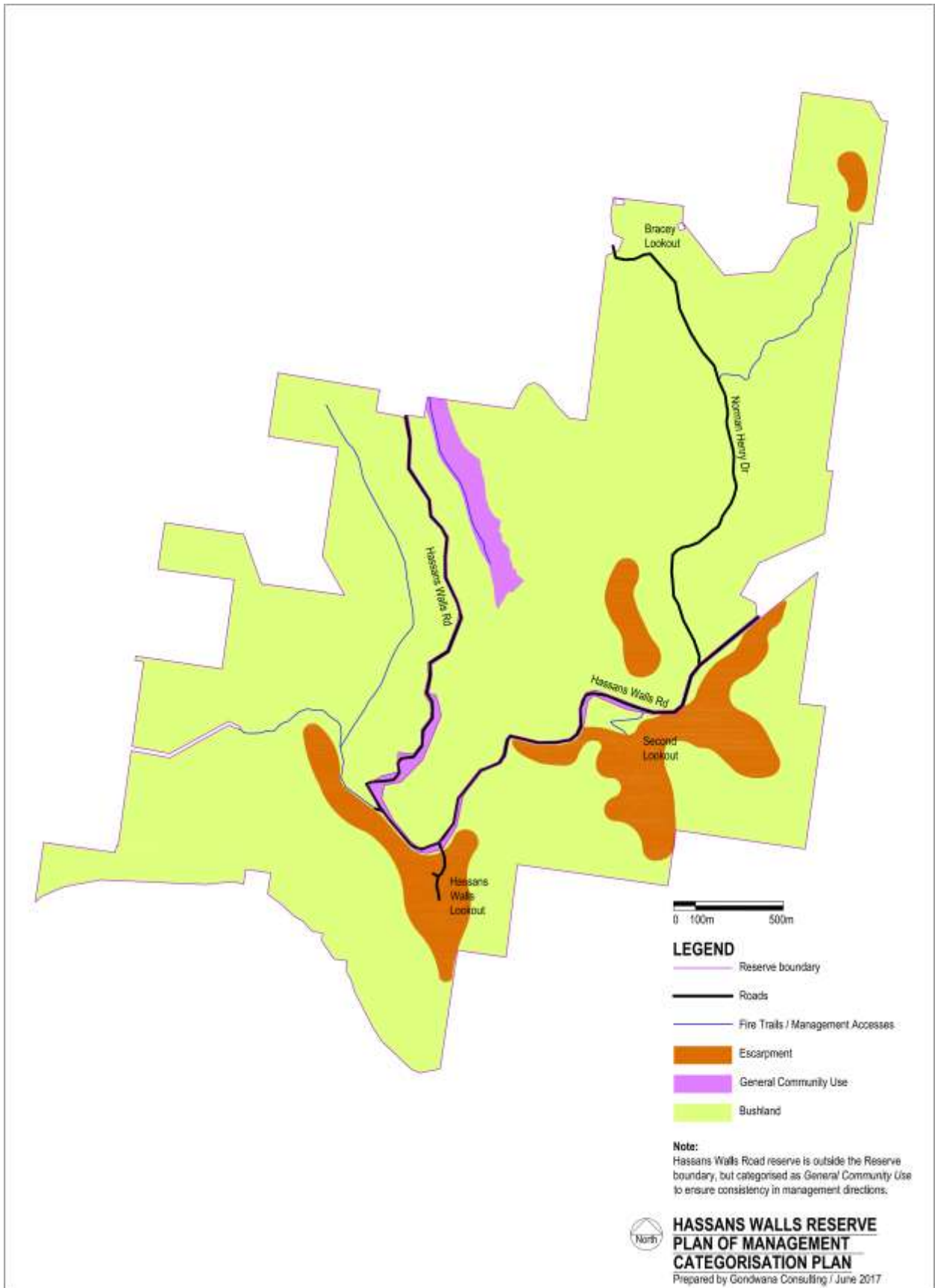
This Plan of Management applies the following three (3) land categories to Hassans Walls Reserve:

- Bushland
- Escarpment
- General Community Use.

### **Bushland Category**

The core objectives for management of Community land categorised as bushland are:

- (a) to ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land, and
- (b) to protect the aesthetic, heritage, recreational, educational and scientific values of the land, and
- (c) to promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion, and
- (d) to restore degraded bushland, and
- (e) to protect existing landforms such as natural drainage lines, watercourses and foreshores, and
- (f) to retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term, and
- (g) to protect bushland as a natural stabiliser of the soil surface.



**Figure 11 – Community Land categories**

## **Escarpment**

The core objectives for management of Community land categorised as an escarpment are:

- (a) to protect any important geological, geomorphological or scenic features of the escarpment, and
- (b) to facilitate safe community use and enjoyment of the escarpment.

## **General Community Use**

The core objectives for management of Community land categorised as a General Community Use are to promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public:

- (a) in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public, and
- (b) in relation to purposes for which a lease, licence or other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities).



*Hassans Walls Reserve contributes significantly to the visual amenity and landscape of Lithgow.*

## 11. Management Zones for Hassans Walls Reserve

Management zones are a way of defining different areas within the Reserve based on the values that management aims to protect and the types of activities and uses that are permitted. Zoning is a useful way of summarising the broad management intent of particular areas of the Reserve – describing management objectives and, importantly, management priorities for different Reserve areas.

Management zones and their boundaries are determined by the arrangement of the major reserve values and features – such as bushland and biodiversity, landscapes, scenic qualities, access and accessibility, and facilities and levels of development. Management zones can be based on both the natural features and the human attributes of an area. They are generally, but not necessarily always, areas that have common values and features. However it is in expressing consistent management aims and priorities for an area where they are of most use.

Management zones:

- provide a geographic framework within which to manage the Reserve
- reflect or acknowledge key Reserve values and features;
- describe the overall management intentions for different parts of the Reserve;
- identify those management objectives that have priority in different parts of the Reserve;
- indicate the types and levels of use, especially recreational use, that are appropriate in different parts of the Reserve;
- help in reducing and managing existing and possible future conflicts between uses/activities and the protection of the Reserve's key values, as well as conflicts between different uses and activities;
- provides a basis for evaluating future - as yet unforeseen - uses, activities and development proposals; and
- can be used to guide visitors in their safe, enjoyable and sustainable use of the Reserve.

To be most useful and efficiently applied, management zones should generally be larger areas with broadly common or shared values, features and management demands or intensities.

The following management zones are proposed to provide a framework for the Reserve's future management:

- Conservation
- Managed Use Bushland;
- Day Use;
- Urban Edge; and
- Utilities Zone

The location and extent of these management zones is shown in Figure 12.

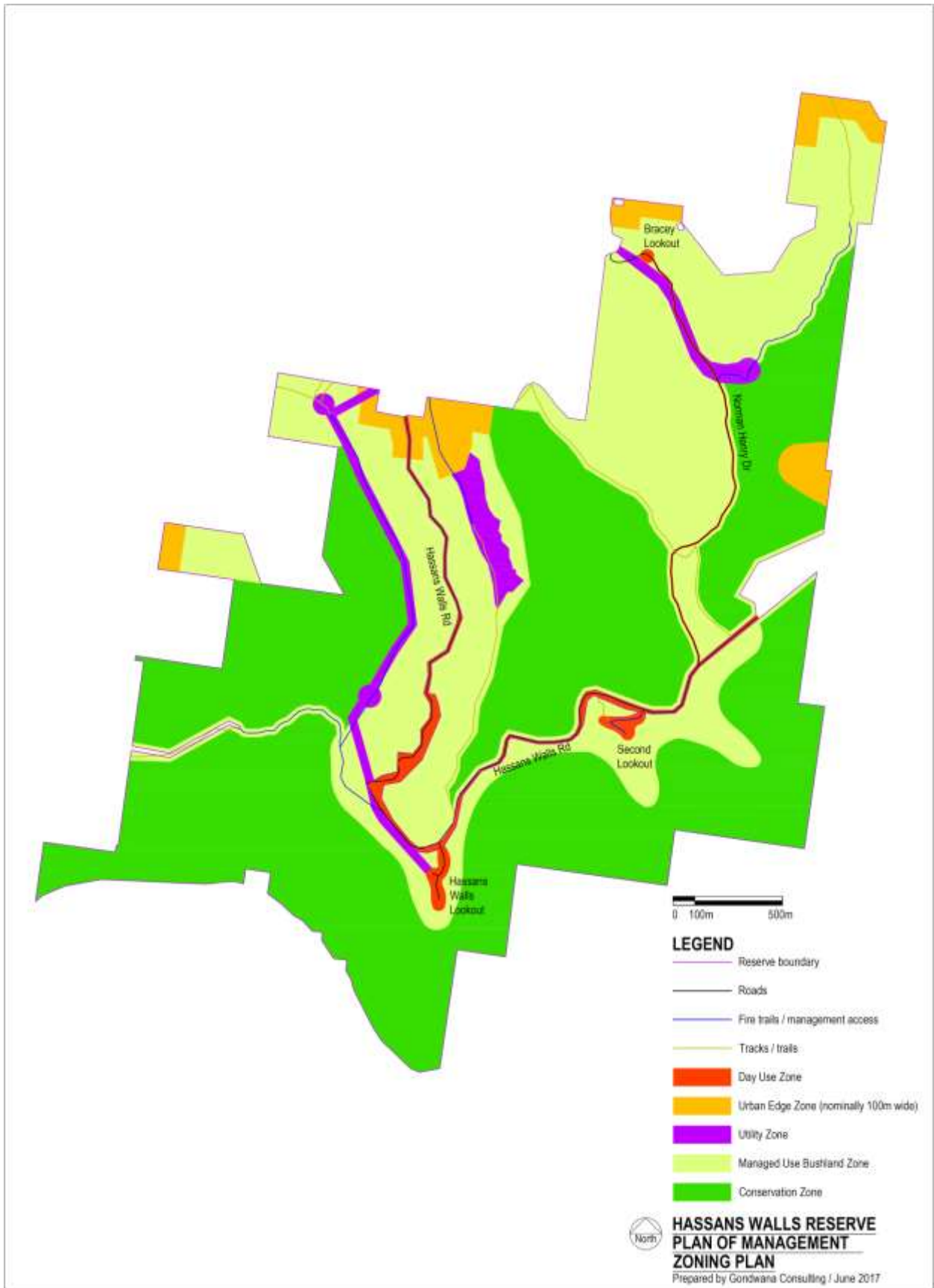


Figure 12 – Zoning Plan

## 11.1 Description of Management Zones

The “management intent” and “management priorities” for each of these five management zones are described below. Management priorities are separated into “primary” or “secondary” priorities.

Primary management objectives are the over-riding or over-arching management objectives for a zone – they are the most important outcomes that management should achieve, and take the main role in driving/shaping management actions, and take priority in the case of any conflicting issues/outcomes.

Secondary, or supporting, management objectives are other objectives that may be pursued within the primary purpose – once the primary management objectives have been realised, and as long as these secondary actions do not conflict with or compromise the primary purpose.

### Conservation Zone

*Management Intent* – To maintain the majority of the Reserve as natural bushland and a scenic landscape, protecting communities and species of high conservation value.

#### *Management Priorities*

Primary Management objectives:

- To protect communities and species legislated as having high conservation value.
- To maintain and enhance the natural systems, biodiversity, habitat, and scenic values of a large natural bushland area.
- To not provide access or facilities to encourage recreational use within this zone.

Secondary Management objectives:

- To maintain links to adjacent or nearby natural areas.
- To assist in maintaining the Reserve’s undeveloped bushland skyline, as seen from internal and external vantage points and use areas.

### Managed Use Bushland Zone

*Management Intent* – To maintain large areas of the Reserve as natural bushland for biodiversity and scenic landscape protection while allowing for sustainable dispersed recreational and educational uses without significantly impacting on these wider environmental values.

#### *Management Priorities*

Primary Management objectives:

- To maintain large areas of the Reserve as natural bushland to protect their biodiversity and scenic landscape values.
- To provide sustainable opportunities for dispersed recreational and educational uses within these areas without significantly impacting the wider bushland setting, biodiversity and scenic values or natural processes.

Secondary Management objectives:

- To accommodate occasional special uses or activities, with prior approval.
- To assist in maintaining the Reserve’s undeveloped bushland skyline, as seen from internal and external vantage points and use areas.



## **Day Use Zone**

*Management Intent* – To maintain the existing main visitor access roads (Hassans Walls Road and Norman Henry Drive) and most visited day use areas at Hassans Walls Lookout and Bracey Lookout and allow for increased use of Second Lookout.

### *Management Priorities*

Primary Management objectives:

- To offer a high quality day-use experience for Reserve visitors - providing for visitor vehicle access and accommodating passive day-use recreational activities at the key lookout locations.
- To provide visitor facilities, as warranted by demand and use levels, appropriate to day use destinations in a bushland environment in proximity to Lithgow.
- To provide for visitor safety.

Secondary Management objectives:

- To maintain existing Reserve access standards with improved vehicle parking within this zone.
- To accommodate use by elderly, mobility impaired and disabled visitors and groups.
- To promote links (walking tracks) to the adjoining bushland areas of the Reserve.

## **Urban Edge Zone**

*Management Intent* – To manage those sections of the Reserve boundary adjacent to residential areas and other developments to effectively manage hazards and reduce inconveniences to Reserve neighbours, as well as minimising adverse impacts from adjoining land uses on the Reserve and its values.

### *Management Priorities*

Primary Management objectives:

- To minimise the risks to life and property posed by occasional wildfires on the Reserve.
- To reduce direct and indirect impacts on the Reserve and its values from adjacent land uses, as well as to avoid undue inconvenience to Reserve neighbours from on-Reserve activities.

Secondary Management objectives:

- To provide sustainable opportunities for dispersed recreational and educational uses, without significant adverse impacts on adjacent natural areas.
- To provide for the lease of lands for recreational use by Lithgow Pony Club while enabling access and use by other park visitors.
- To provide for the leasing or licencing, for occupation or use, of the Council-owned residence at the north end of Sheedys Gully.

## **Utilities Zone**

*Management Intent* – To manage the ongoing presence of a range of infrastructure assets (radio towers, electricity transmission lines), and approved lease (the Lithgow Pony Club), located within the Reserve.

### *Management Priorities*

Primary Management objectives:

- To authorise the ongoing presence of a range of infrastructure within the Reserve, including their access and management by authorised persons.
- To minimise impacts of these assets and their management on the natural values of the Reserve.

Secondary Management objectives:

- To allow for recreational use of fire trails and management access tracks.
- To provide for the lease of lands for recreational use by Lithgow Pony Club while enabling access and use by other park visitors.

## 12. Concept Masterplan

A Masterplan provides the broad management direction and layout intended for the future use and development of a Reserve. As resources are identified to implement specific elements of the Masterplan, each element will be subject to a detailed design process and approval process and involve community consultation where appropriate and as Council's planning approvals require. For example, more detail on the layout for the proposed improved Hassans Walls Lookout car park and consideration of impacts on significant fringing vegetation will be required prior to approval and implementation

It is intended that the Masterplan contained in Figure 13 is implemented over time as resources become available.

Key elements of the Masterplan are outlined below.

### Flora and Fauna

To better understand and to guide future management /conservation of the Reserve's ecological values a flora and fauna survey of the Reserve will be undertaken. Both surveys will be undertaken at various times of the year / seasons that will allow for survey of the full suite of flora and fauna in the Reserve. The results of the flora and fauna surveys will be used to update and inform the planning provisions of the review of this Plan of Management in 5 – 10 years.

In the absence of these surveys, surveys will be undertaken to inform the planning and approval of site specific developments proposed in this Plan.

The greater majority of the Reserve will be managed - both within the Bushland Zone and elsewhere - to protect and enhance the Reserve's natural environment, habitats and biodiversity values and contribute to the Reserve's recreation and scenic appeal.

### Cultural Heritage

The existing policy of not publicly disclosing the location of Aboriginal sites as the principal management tool and means of protecting such places will be continued. Aboriginal people will be involved in the presentation of Aboriginal heritage should traditional owners desire.

The Dummy Anti-Aircraft Station built heritage elements will be maintained in their current form. Surrounding vegetation will be regularly trimmed / removed in order to avoid accelerated decay of the items. Funding will be sought to prepare a Conservation Management Plan to provide direction for future management of the heritage structures. Public access to the sites will not be promoted until the CMP has been developed.

### Access

Maintain Hassans Walls Road as a two way compacted gravel/natural surface. Apart from providing conventional vehicle access the Road will continue to serve both walkers and bicycle riders. To ensure walker and rider safety a 40 km/h speed limit is proposed along with improved signposting to increase driver awareness of the shared road, improved traffic warning signs and traffic calming devices such as speed humps and road verge barriers in strategic locations.

Norman Henry Drive will also be maintained as a two way road primarily with natural surface. Maintenance of bitumen surface sections will be enhanced to provide an improved surface at the steep section of the road. Existing informal passing lay-bys will be signposted to improve driver awareness of narrow road sections and minimise off road driving in order to pass oncoming traffic.

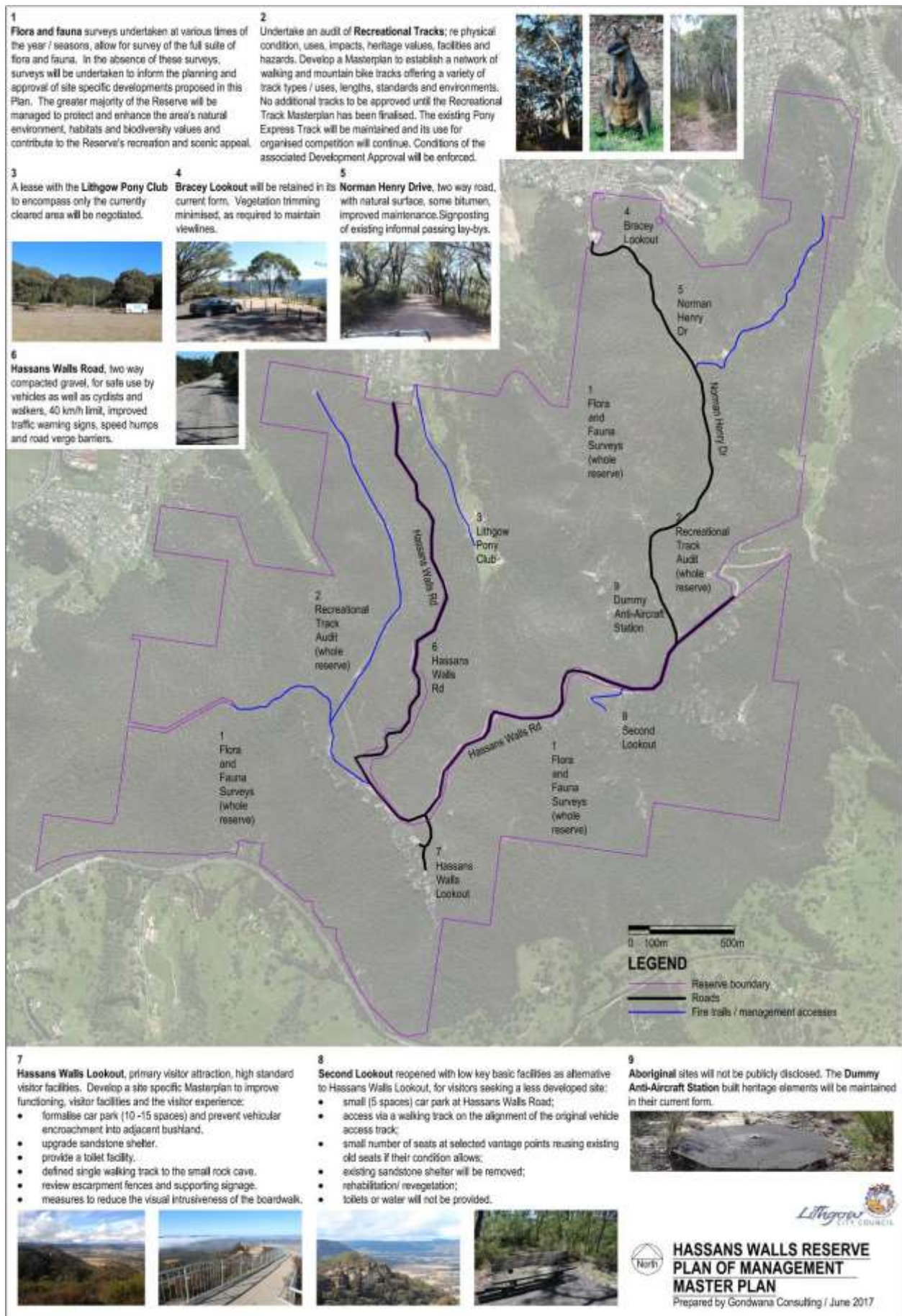


Figure 13 – Hassans Walls Reserve Master Plan

## **Hassans Walls Lookout**

Hassans Walls Lookout is the primary visitor attraction of the Reserve with a high standard of visitor facilities. The area referred to as Hassans Walls Lookout includes all elements of the site past the turn off from Hassans Walls Road - being the access track, communications tower and surrounds, all current parking areas and pedestrian access points, the small cave and the main lookout.

Develop a site specific Masterplan for Hassans Walls Lookout to guide the improved functioning of the site, provision of improved visitor facilities and to enhance the visitor experience. The Masterplan will include:

- Relocation / redesign of car park to allow the efficient use of space, define 10 -15 car parks and a mini bus space and prevent vehicular encroachment into adjacent bushland.
- Improved role and function of the sandstone shelter structure to potentially provide a water supply point, improved visitor appeal and potential site for inclusion of visitor information and interpretation.
- The provision of a toilet facility.
- Providing a defined single walking track to the small rock cave.
- Rehabilitation / revegetation.
- A review of the functionality of the escarpment fences and their retention, the removal of those that may be obsolete and the need for supporting signage.
- Provision of a directional dial replica on the stone plinth.
- Measures to reduce the visual intrusiveness of the boardwalk.

## **Bracey Lookout**

Bracey Lookout will be retained essentially in its current form. Regular inspections will be conducted to monitor incursions of overflow car parking into bushland and allow for management responses as required. The extent of vegetation trimming will be minimised to that which is essential to maintain sightlines from the lookout structure.

## **Second Lookout**

The Second Lookout site will be reopened to public access with low key basic facilities in order to provide an alternative to Hassans Walls Lookout. The site will cater for visitors seeking a less developed, less visited site than Hassans Walls Lookout. To achieve this desired character a small (5 vehicle maximum) car park will be established at Hassans Walls Road near the current gate and access to the lookout will be via a walking track on the alignment of the original vehicle access track. The lookout area will provide a small number of seats at selected vantage points reusing existing old seats if their condition allows. The partially destroyed sandstone shelter will be removed. Rehabilitation/ revegetation will be undertaken of much of the width of the access track and old car park area to reduce the disturbed footprint of the site. Toilets or water will not be provided.

## **Recreational Tracks**

Undertake an audit of the existing recreational tracks in the Reserve. The audit will record each track's - type; access points and connections; existing condition including soil and vegetation characteristics, track surface and erosion, drainage, impacts, public safety (hazards, risks, sightlines), signage and any heritage values; existing users/usage; and management issues.

The audit results will be used to develop a Recreational Track Plan for Hassans Walls Reserve to establish a network of walking and mountain biking tracks (and shared routes if safe/appropriate) offering

tracks of a variety of types, lengths, standards and environments and will examine the potential for track linkages along the northern boundary. The Recreational Track Plan will aim to provide additional walkers-only tracks within the Reserve. The Plan will be constrained by the Zoning Scheme with no tracks to be recommended within in the Conservation Zone, but potentially recommending recreational tracks/trails where considered appropriate (after necessary planning, assessment and approval) in any other management zone. The Plan will propose a desired standard for each track based on the proposed visitor experience and environmental sustainability, and develop a staged management / maintenance program for each track. Shared use by walkers and mountain bikers/cyclists will generally be limited to public roads, fire trails or management vehicle accesses, and any designated shared routes if safe/appropriate - not on "single tracks" (either dedicated walkers only or mountain bike only tracks).

No additional recreational tracks will be formally approved until the Recreational Track Masterplan has been finalised.

The existing Pony Express Track will be maintained and its use for organised competition will continue in the absence of the Recreational Track Masterplan. Conditions of the associated Development Approval, including closure and rehabilitation of the "Gun Club Track", will be enforced.

### **Lithgow Pony Club**

A new lease with the Lithgow Pony Club will be negotiated. This will encompass only the currently cleared area (and be limited to the area categorised as General Community Use) and will include provisions for pest plant and animal control and restricting encroachments into surrounding native vegetation or revegetating areas, and will permit access by other Reserve users while including conditions to minimise impacts by other users on the Pony Club's use of the site.

## 13. Staged Implementation

Given the size of Hassans Walls Reserve there is a range and scale of initiatives / actions proposed to be undertaken all of which require either recurrent Council commitment in the form of personnel and funding or one off allocated funding for specific initiatives in the Plan of Management. The implementation of the Plan will therefore necessarily be staged over time.

This section of the Plan describes how the Reserve will be managed using a broad two stage approach over a ten year period. This broad approach can be used as a guide to implementation until the Plan is reviewed and updated.

### First Stage (Years 1 - 5)

It is proposed that the first stage of the Plan's implementation focus primarily on improving the understanding of the Reserve's natural, heritage and recreational values to provide a sound information base that will enable informed decisions on other initiatives proposed in the Plan. At the same time, in recognition of the Reserve's high use by Lithgow locals and regional visitors, it is proposed that works be undertaken to improve visitor safety on Hassans Walls Road, improve the functioning of the site and recreational experience offered at the primary attraction of Hassans Walls Lookout and improve information availability and promotion of the Reserve.

Specific high priority actions in this time include:

#### Information Gathering

1. Flora and fauna survey of the Reserve. (Cost estimate - \$60,000)
2. Audit of Recreational tracks. (Cost estimate - \$45,000)
3. Geotechnical study of the rock formations and escarpments within the Reserve to assess the location and extent of subsidence and rock cracking, the risk of future rock falls and any ongoing monitoring requirements. (Cost estimate - \$40,000)
4. Identify and document historic heritage sites / features within the Reserve. (Cost estimate - \$40,000)

#### Improved Recreational Experience

5. Implement management measures proposed for Hassans Walls Road to improve pedestrian and rider safety and enable continued shared use of the road. (Cost estimate - \$50,000)
6. Implement Norman Henry Drive improvements. (Cost estimate - \$15,000)
7. Prepare and implement Masterplan for Hassans Walls Lookout. (Cost estimate - \$20,000 for Masterplan, \$150,000 for works)
8. Prepare and implement Masterplan for Second Lookout. (Cost estimate - \$10,000 for Masterplan, \$50,000 for works)
9. Enhance information availability and promotion of recreational opportunities at Hassans Walls Reserve. (Cost estimate - \$10,000 ex staff time)

#### Environmental Management

10. Implement Purple Copper Butterfly Recovery Plan management measures relevant to Hassans Walls Reserve. (Cost estimate - \$2,000 per annum ongoing)

11. Continue to prepare and implement a rolling programme of weed control and bush regeneration efforts within the Reserve. (Cost estimate – nominal \$15,000 per annum, ongoing)
12. Undertake flora and fauna surveys to inform the planning and approval of the Hassans Walls Lookout site Masterplan works (should the Reserve wide flora and fauna surveys not have been completed when the Masterplan is in preparation). (Cost estimate - \$10,000)

### **Second Stage (Years 6 – 10)**

The second stage of the Plan's implementation will focus on using the enhanced understanding of the Reserve's natural, heritage and recreational values to improve environmental and recreational management of the Reserve.

Specific high priority actions in this time include:

#### Expanded Recreational Opportunities

13. Prepare and commence implementation of the Recreational Track Plan to establish a network of safe and sustainably managed walking and mountain bike tracks (and shared routes if safe/appropriate) offering tracks of a variety of types, lengths, standards and environments.

#### Targeted Environmental Management

14. Prepare and implement Hassans Walls Reserve Fire Management Plan to identify fire sensitive areas and populations of threatened and rare species requiring special fire management regimes, prioritise areas for burning and identify burning regimes appropriate for maintaining biodiversity as well as protecting other assets in the Reserve.
15. Prepare and implement specific management plans for species identified by the flora and fauna survey that are listed under *Threatened Species Conservation Act*, to establish specific management regimes to locally manage / conserve the species within the Reserve.
16. Improved targeting and prioritisation of weed control and bush regeneration efforts within the Reserve based on enhanced understanding of weed distribution, vegetation communities of high conservation significance and habitats/populations of native flora and fauna species of high conservation significance.



## 14. Management Actions

The following Action Tables present a variety of management actions – comprising both policies and management directions or guidelines, as well as more specific on-ground or tangible actions – that will guide the Reserve’s management over the coming 5 to 10 years. The management actions have been identified in response to the Reserve’s values, the threats to these values and other management issues, community values and aspirations as expressed through the various community consultation measures during the Plan’s preparation, and the stated Reserve vision and management objectives.

Given the size of Hassans Walls Reserve there are a range and scale of initiatives / actions proposed to be undertaken all of which require either recurrent Council commitment in the form of personnel and funding or one off allocated funding for specific initiatives in the Plan of Management. The implementation of the Plan will necessarily be staged over time.

Management Actions have been grouped into specific value or operational areas (which approximate the value descriptions used in the preceding sections of the Plan), as follows:

**Natural Environment** – management actions for native flora and vegetation communities and habitats, native fauna, weeds and pests and introduced animals and fire management.

**Cultural Heritage** – management actions for Aboriginal cultural heritage and historic (non-Aboriginal) heritage.

**Visitor Use and Recreation** – management actions for access, day use areas, recreational tracks, information and interpretation, and educational uses.

**Landscape and Amenity** – management actions for retaining viewlines to and from the Reserve and addressing risk related to mining subsidence.

**Reserve Management and Administration** – management actions for Reserve administration and management activities, leases and licences and special uses and commercial activities, and assets and infrastructure.

The Action Tables also include an indication of the order of resources required, priority and implementation responsibilities for each management action – as a guide to the Plan’s implementation or operation.

Resource requirements are generalised according to the following categories -

- negligible or minor – actions that are routinely part of the Reserve’s management and can be met from normal Reserve or Council operational budgets;
- moderate – actions that will require special allocations in the Reserve’s or Council’s operational budgets, additional resourcing, may extend over a number of funding cycles, and/or require a level of capital works funding;
- high – actions that are significant projects, typically requiring sizeable capital works or other funding; and
- not applicable (n/a) – actions that are of a policy nature or guidelines, that do not have a resource requirement attached or where implementation / operational costs are part of other actions.

The identified priorities give an indication of both the relative importance, and preferred timing, of each action – as follows.

- High – Essential to achievement of the Reserve’s management objectives, or where there is potential for the public to be exposed to an unacceptable level of risk, or there is potential for a serious threat to Reserve values or the environment and warranting funding consideration until achieved.
- Medium – These actions are desirable to enhance achievement of the Reserve’s management objectives, or to address issues that meet a significant community need, or to improve Reserve management outcomes and ideally should be implemented within the life of this Plan.
- Low – These actions are useful for the overall management of the Reserve or address issues that have longer-term impacts (such as meeting less urgent community needs or improving inefficient services) and should be undertaken if resources permit.
- Where relevant, actions have also been identified as “Ongoing” – where the action in question will apply or continue throughout the Reserve’s management and/or the life of this Plan.

Responsibilities for the implementation of each management action have been identified to the organisation level.

Intended outcomes, and associated performance measures or means of assessing and tracking progress towards the stated management objectives, are identified following the Action Table for each general value or operational area as a whole.

## 14.1 Natural Environment

### Vegetation Communities and Flora

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE1	Undertake a comprehensive flora survey of Hassans Walls Reserve to identify and map the extent of vegetation communities and the location and extent of conservation significant flora species. Seek management advice from the Office of Environment and Heritage and other specialist agencies, where required.	Moderate	High	Council OEH
NE2	Prepare specific management plans for <i>Persoonia acerosa</i> and any species identified by the flora survey that are listed under <i>Threatened Species Conservation Act</i> , to establish specific management regimes to locally manage / conserve the species within the Reserve. Seek management advice from the Office of Environment and Heritage and other specialist agencies, where required.	Moderate	High	Council OEH
NE3	Manage the greater majority of the Reserve as bushland - both within the Bushland Zone and elsewhere - to protect and enhance the Reserve's natural environment, habitats and biodiversity values as well as to contribute to the area's recreation and scenic appeal.	n/a	High (ongoing)	Council
NE4	Protecting the existing extensive areas of native vegetation and minimising bushland disturbances (to the extent as consistent with other actions identified in this Plan), will be the dominant "passive" management measures employed to maintain native flora, vegetation community and habitat values across most of the Reserve.	n/a	High (ongoing)	Council

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE5	<p>Continue to prepare and implement a rolling programme of weed control and bush regeneration efforts within the Reserve, with adequate on-going commitments to follow-up works at treated sites (both existing sites and future sites) to ensure effectiveness. This will include the monitoring of revegetation, bush regeneration and rehabilitation efforts. Priorities for weed control and bush regeneration measures will include:</p> <ul style="list-style-type: none"> <li>➤ declared noxious weeds, and environmental weeds with a high potential for spread;</li> <li>➤ vegetation communities of high conservation significance;</li> <li>➤ habitats/populations of native flora and fauna species of high conservation significance;</li> <li>➤ disturbed sites and existing weed infestations;</li> <li>➤ areas vulnerable to weed invasion/spread (such as roadsides, tracksides and major visitor nodes); and</li> <li>➤ Reserve boundaries.</li> </ul>	Minor	High (ongoing)	Council (Volunteers/groups)
NE6	A monitoring programme will be prepared and implemented targeting areas vulnerable to the introduction and spread of weeds – this will include regular monitoring of the Reserve boundary, high visitor use areas as well as periodic monitoring of Reserve access roads, fire trails and tracks/trails.	Minor	Medium	Council
NE7	Revegetation and supplementary bush regeneration plantings will only use local-provenance endemic species, preferably grown from seeds or vegetative material sourced (under managed conditions) from within the Reserve.	Minor	High (ongoing)	Council Volunteers
NE8	Undertake or facilitate periodic bushland condition assessments - to assist in formulating, targeting and monitoring bush regeneration and weed control measures.	Minor	Medium	Council Other agencies/ institutions

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE9	Ensure neighbouring residences are included in the distribution of any Council bushland management education and promotional material. Such material will include advice regarding cat control and responsible pet ownership - as well as other issues such as suitable indigenous plants for gardens, minimising fertiliser use, responsible disposal of garden waste, urban wildlife, stormwater management, environmentally responsible fire protection measures and other “good bush neighbour” advice as warranted.	Minor	Low	Council

#### Performance Measures and Outcomes:

- Increased knowledge of the Reserve’s native vegetation communities, flora and habitats.
- Condition of the Reserve’s bushland maintained or enhanced – based on survey, monitoring and observation.
- No long-term reduction in the Reserve’s bushland area – based on survey and monitoring.
- Extent, occurrence and condition of significant vegetation communities, listed threatened species, and species of regional conservation significance maintained or enhanced – based on survey, monitoring and observation.
- Weed control and bush regeneration programme in place and regularly reviewed.
- Reduction in the extent of weed degraded bushland – based on monitoring and observation.
- Reduced incidence of new weed infestations/introductions – based on monitoring and observation.

#### Fauna

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE10	Undertake an initial fauna survey to obtain baseline data on the Reserve’s wildlife. Seek management advice from the Office of Environment and Heritage and other specialist agencies, where required.	Moderate	High	Council OEH

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE11	Habitat protection – through protecting the existing extensive areas of native vegetation and minimising bushland disturbances and fragmentation both within the Bushland Zone and elsewhere (to the extent as consistent with other actions identified in this Plan or unless for works otherwise approved in this Plan) – will be the dominant “passive” management measures employed to support native fauna populations within the Reserve.	n/a	High (Ongoing)	Council
NE12	Undertake special management measures, as / where required to protect and conserve threatened or significant native fauna species within the Reserve – including relevant measures set out in any applicable Approved Recovery Plans under the Threatened Species Conservation Act 1995. This may include limitations on visitor access and use if warranted. Seek management advice from the Office of Environment and Heritage and other specialist agencies, where required.	Minor	High	Council OEH
NE13	Undertake or facilitate targeted surveys of the Reserve’s threatened or significant native fauna species, as/when required, to support their conservation management.	Minor	Medium	Council OEH Other agencies/ institutions /volunteers
NE14	Undertake or facilitate periodic fauna survey and monitoring within the Reserve, according to a systematic and structured programme to provide long-term and comparable data on the Reserve’s wildlife.	Minor	Low	Council OEH Other agencies/ institutions /volunteers
NE15	Undertake periodic monitoring of the location and abundance of pest animal populations to inform and target control measures.	Minor	Medium (Ongoing)	Council
NE16	Participate in co-ordinated regional pest animal control programmes, as well as Council initiated control actions.	Moderate	High (ongoing)	Council OEH/ other agencies

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE17	Dogs will be permitted on the Reserve's road and track network, but only if on a leash and under full control. Appropriate signage will be provided, at key points, regarding dog controls/obligations. This policy will be periodically reviewed – especially in regard to taking dogs into the Reserve's more natural areas, possible impacts on the area's biota, visitor safety and nuisance issues, and the perceptions of other visitors – and dogs may subsequently be banned from all or part of the Reserve. Dog owners/walkers will be required to collect and remove all dog faeces from the Reserve.	Minor	Medium (ongoing)	Council
NE18	Other domestic animals/pets, including horses, will be prohibited from the Reserve, and the relevant Council by-laws notified and enforced within the Reserve.	Minor	Medium (ongoing)	Council

#### Performance Measures and Outcomes:

- Increased knowledge of the native wildlife within the Reserve.
- Diversity and abundance of the Reserve's native wildlife is maintained or enhanced (consistent with naturally occurring/sustainable levels) – based on survey, monitoring and observation.
- Reserve's native wildlife population is comparable to that of other, ecologically similar, large bushland conservation reserves in the Lithgow region – based on survey, monitoring and observation.
- Native fauna species or populations listed as threatened, or of regional conservation significance, are maintained or enhanced – based on survey, monitoring and observation.
- Reduced populations of, and adverse impacts of, pest animals – based on monitoring and observation.
- Dogs and other domestic animals effectively managed within the Reserve.

#### Fire Management

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE19	Continue to manage fire hazards in accordance with the <i>Rural Fires Act</i> , directions set out in the Lithgow Bush Fire Risk Management Plan 2015 and other relevant policies and legislation.	Minor	High (Ongoing)	Council RFS

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
NE20	<p>Prepare a Hassans Walls Reserve Fire Management Plan to:</p> <ul style="list-style-type: none"> <li>➤ inform and comply with the <i>Lithgow Bush Fire Risk Management Plan 2015</i>,</li> <li>➤ identify fire sensitive areas and populations of threatened and rare species requiring special fire management regimes,</li> <li>➤ prioritise areas for burning and identify burning regimes appropriate for maintaining biodiversity as well as protecting other assets in the Reserve</li> <li>➤ Maintenance of access for hazard reduction burning and fire control</li> <li>➤ Provide for cooperative arrangements with the NSW RFS and other fire management agencies.</li> </ul> <p>Results of the flora and fauna surveys will inform the biodiversity management requirements of the Plan.</p>	Moderate	High (Ongoing)	Council RFS Other agencies
NE21	Liaise with Reserve neighbours to assist in the management of fire risks to their properties and explain on-Reserve fire hazard management measures.	Minor	Medium (ongoing)	Council
NE22	Ensure that fire trails are managed - by Council, RFS and utility agencies - as far as practicable to reduce adverse bushland, erosion and visual impacts.	Minor	Medium (ongoing)	Council RFS Utility agencies

#### Performance Measures and Outcomes:

- Successful completion of hazard reduction measures – as assessed against programme targets.
- Reduced incidence of damage to on-Reserve, and neighbouring, assets.
- Environmentally sensitive management of fire trails – as assessed by pre and post works impact observation / recording, and compliance with best practice guidelines.
- Increased neighbour awareness and implementation of fire hazard reduction measures – as demonstrated by greater incidence of private property hazard reduction efforts.



## 14.2 Cultural Heritage

### Aboriginal Cultural Heritage

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
CH1	Ensure Aboriginal heritage sites are appropriately managed throughout the Reserve, as consistent with the <i>National Parks and Wildlife Act 1974</i> . Continue the existing approach of not publicly disclosing the location of Aboriginal sites as the principal management tool and means of protecting such places.	Minor	High (Ongoing)	Council
CH2	Liaise with the Office of Environment and Heritage as well as relevant Aboriginal people/groups (e.g. the Mingaan Wiradjuri Aboriginal Corporation and Wiradjuri Aboriginal People and local Elders) regarding the management and protection of Aboriginal heritage sites within the Reserve.	Moderate	High (Ongoing)	Council RFS Other agencies
CH3	Actively involve Aboriginal people in protection and presentation of the Reserve's Aboriginal cultural heritage.	Minor	Medium (ongoing)	Council
CH4	Provide interpretive and educational material / resources regarding the Reserve's use by Aboriginal people, surviving Aboriginal evidence (generically) and continuing importance for Aboriginal people today.	Minor	Medium	Council Aboriginal community
CH5	Investigate funding to undertake a systematic survey to identify and record Aboriginal heritage sites. Undertake survey if external funding can be secured, and involve the local Aboriginal community in the survey process.	Negligible	Medium	Council Aboriginal community

### Performance Measures and Outcomes:

- Compliance with relevant legislation.
- Suitable public information available regarding Reserve's Aboriginal heritage values.
- Effective liaison with the OEH and relevant Aboriginal people/groups (e.g. the Mingaan Wiradjuri Aboriginal Corporation and Wiradjuri Aboriginal People and local Elders).

## Historic (non-Aboriginal) Heritage

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
CH6	Identify and document historic heritage sites / features within the Reserve and provide appropriate management and protection for these features where warranted.	Medium	High	Council
CH7	In the absence of a Conservation Management Plan, the State Heritage listed Dummy Anti-Aircraft Station heritage structures will be maintained in their current form. Surrounding vegetation will be regularly trimmed / removed in order to avoid accelerated decay of the items.	n/a	High (Ongoing)	Council
CH8	Funding will be sought to prepare a Conservation Management Plan to provide direction for future management of the Dummy Anti-Aircraft Station heritage structures. Public access to the sites will not be promoted until the Conservation Management Plan has been developed.	Moderate	Medium (ongoing)	Council OEH
CH9	Reinstate a directional dial display on the Padley Memorial Direction Dial plinth (including restoration of the stone plinth if/as necessary) at Hassans Walls Lookout. Research the points of interest indicated on the original display and reproduce this feature as far as practicable.	Minor	Medium	Council
CH10	Ensure Historic Heritage is considered in the provision of visitor information, both on site and through off site media and promotion of the Reserve.	Minor	Low	Council

### Performance Measures and Outcomes:

- Increased knowledge, and active management (if necessary) of historic heritage sites/items.
- Suitable public information available regarding Reserve's historic heritage values.

### 14.3 Visitor Use and Recreation

#### Access

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR1	Retain Hassans Walls Road as a two way thoroughfare at compacted gravel/natural surface 2WD standard and continue to cater for shared use with pedestrians and cyclists. A speed limit of 40km/h will apply. The shared use nature of the road and speed limit will be signposted accordingly.	Minor	High (ongoing)	Council
VR2	With the majority of shared use of Hassans Walls Road occurring between the Sheedys Gully entrance and Hassans Walls Lookout turnoff, this section of road will be subject to: <ul style="list-style-type: none"> <li>➤ Regular maintenance of the road surface to reduce risks of accidents,</li> <li>➤ Installation of traffic calming devices and road verge barriers (as required)</li> <li>➤ Signage warning of narrow road sections, the presence of walkers and bike riders</li> <li>➤ Ongoing monitoring of pedestrian and cyclist safety risks.</li> </ul>	Moderate	High (ongoing)	Council
VR3	Close and rehabilitate / revegetate the small informal cleared parking area near the Hassans Walls Lookout turnoff and the start of the Pony Express Mountain Bike Track. Until revegetation is complete, erect interim signage directing visitors to parking at Hassans Walls Lookout.	Minor	Low	Council
VR4	Program regular inspections and maintenance of the bitumen section of Norman Henry Drive to retain a smooth road surface and discourage vehicle tracking off road.	Minor	High (ongoing)	Council
VR5	Monitor roadside compaction of vegetation by passing vehicles on the narrow steep section of Norman Henry Drive. Establish and signpost passing lay-bys as a preventative measure as required.	Minor	Moderate (ongoing)	Council
VR6	Maintain the Reserve's internal roads and carparks through a programmed system of maintenance, supported by responsive and opportunistic maintenance works, as required.	Minor	High (ongoing)	Council

**Performance Measures and Outcomes:**

- Internal vehicle access and carparking operates safely and efficiently – as assessed by observed congestion, accidents/incidents and user feedback.
- The Reserve is accessible to a broad range of community/user groups – as assessed by regular user surveys/observations, and range of users evident.

**Day Use Areas**

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR7	<p>Develop and implement a site specific Masterplan for Hassans Walls Lookout Day Use Area to guide the improved functioning of the site, provision of improved visitor facilities and to enhance the visitor experience while protecting the area’s key values. The Masterplan will include:</p> <ul style="list-style-type: none"> <li>➤ Relocation / redesign of the car park to allow the efficient use of space, define 10 -15 car park spaces and one mini-bus parking space and prevent vehicular encroachment into the adjacent bushland.</li> <li>➤ Improved role and function of the sandstone shelter structure to potentially provide a water supply point, improved visitor appeal and site for inclusion of visitor information and interpretation.</li> <li>➤ The possible provision of a toilet facility and the most appropriate type/standard of toilet – with consideration to visitor numbers and types, length of stay, availability of services, location, public safety/risk, environmental and visual impacts, and management/operational issues.</li> <li>➤ Providing a defined single natural surface walking track to the small rock cave.</li> <li>➤ Rehabilitation / revegetation of disused areas.</li> <li>➤ A review of the functionality of the escarpment fences retention (including consideration of any heritage value of older sections of fencing) and their retention/upgrading/management (including removal of those that may be obsolete) and the need for supporting signage.</li> <li>➤ Provision of a directional dial replica on the stone plinth.</li> <li>➤ Measures to reduce the visual intrusiveness of the boardwalk.</li> </ul> <p>The Masterplan will encompass all elements of the site past the turn off from Hassans Walls Road - being the road, communications tower and surrounds, all current parking areas and pedestrian access points, the main lookout, the small cave and escarpment areas.</p>	High	High	Council

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR8	Bracey Lookout Day Use Area will be retained in its current form. Regular inspections will be undertaken to monitor impacts / incursions of overflow car parking into bushland and allow for management responses as required.	Minor	Low (ongoing)	Council
VR9	The extent of vegetation trimming downslope of Bracey Lookout area will be minimised to that which is essential to maintain viewlines and will not involve the clearing and grubbing of native vegetation.	Minor	Low (Ongoing)	Council
VR10	<p>The Second Lookout site will be reopened to public access with low key basic facilities designed to provide an alternative to Hassans Walls Lookout catering for visitors seeking a less developed, less visited site. A site specific Masterplan for Second Lookout Day Use Area will be prepared to guide redevelopment of the site. The Masterplan will be developed to achieve the desired site character and will include:</p> <ul style="list-style-type: none"> <li>➤ Provision of a small (5-10 vehicles maximum) car park at Hassans Walls Road near the <i>start of the</i> access track (currently barricaded) (earthworks may be required to achieve a suitably sized and level area), or at a suitable site prior to reaching the partially destroyed sandstone shelter's vicinity.</li> <li>➤ Access to the lookout via a walking track on the alignment of the original vehicle access track.</li> <li>➤ Provision of a small number (maximum 5) of seats at selected vantage points reusing existing old seats if their condition allows.</li> <li>➤ Assessment/consideration of any potential heritage significance of the partially destroyed sandstone shelter and old stone toilets.</li> <li>➤ Investigation of the potential for restoration and re-use of the partially destroyed sandstone shelter.</li> <li>➤ Rehabilitation/ revegetation of much of the width of the access track and old car park area to reduce the disturbed footprint of the site.</li> <li>➤ Conservation of the old stone toilets.</li> <li>➤ Consideration of scattered picnic tables in a bush-setting.</li> <li>➤ Toilets or water will not be provided.</li> </ul>	High	Medium	Council

### Performance Measures and Outcomes:

- Day use area usage levels are maintained within acceptable social and environmental impact limits – as assessed by regular usage surveys and impact monitoring.
- The existing / proposed character of the three day use areas is maintained, and incremental development avoided – as assessed by regular facilities audits and user feedback.
- Visitor facilities/infrastructure within the three day use areas area maintained as safe, serviceable (consistent with relevant standards), presentable and meet community expectations – as assessed by regular facilities audits, and user feedback.

### Recreational Tracks

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR11	Undertake an audit of the existing recreational tracks in the Reserve. The audit will record each track's type; standard and (descriptive) parameters; access points and connections; existing condition (including soil and vegetation characteristics, track surface and erosion, and drainage); environmental setting and impacts; any heritage values, existing users/usage and levels of use; public safety (hazards, risks, sightlines) and signage; and management issues.	Moderate	High	Council
VR12	All fire trails within the Reserve's bushland zone will be available for use by walkers and riders (except when closed due to management, safety or other reasons).	n/a	High	Council, NSW RFS, Utilities agencies

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR13	<p>Use the audit results to develop a Recreational Track Plan for Hassans Walls Reserve to:</p> <ul style="list-style-type: none"> <li>➤ establish a network of safe and sustainably managed walking and mountain bike tracks (and shared routes if safe/appropriate) of differing track standards / conditions, distance / duration and character;</li> <li>➤ provide additional walkers-only tracks within the Reserve (outside of the Conservation Zone);</li> <li>➤ include bush tracks and existing fire trails in the Reserve's bushland areas and limit shared use of the Reserve's Road network as much as possible;</li> <li>➤ examine the potential for track linkages along the northern boundary;</li> <li>➤ investigate potential recreational track/trail links, or entry points, across surrounding private lands;</li> <li>➤ propose a desired standard for each track based on the visitor experience and environmental sustainability; and</li> <li>➤ include a staged management / maintenance program for each track.</li> </ul> <p>The Recreational Track Plan will be constrained by the Zoning Scheme. It will not recommend recreational tracks/trails within the Conservation Zone, however new walking or mountain bike (or shared) tracks may be identified where considered appropriate for retention, rationalisation or development in any other management zone (subject to the necessary planning, assessment and approvals – as required by Action RA8).</p>	Moderate	High	Council, User Groups
VR14	Implementation of the Recreational Track Plan will be staged based on achieving a diversity of track offerings as an immediate goal.	Moderate	High	Council, User groups
VR15	Establish a recreational trail consultative group to provide an avenue for user group involvement in the Recreational Track Plan, its implementation and ongoing track maintenance. Representation to include mountain bike riders, walkers, environmentalists and local users of the Reserve – both individuals and as representatives from established community groups.	Minor	High	Council, User groups and individuals
VR16	No additional recreational tracks will be formally approved until the Recreational Track Masterplan has been finalised.	n/a	High	Council

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR17	<p>In advance of the Recreational Track Masterplan's preparation Council may temporarily close, or permanently close and rehabilitate, any informal, unauthorised or newly formed tracks where these are generating (or may lead to) unacceptable impacts on natural or scenic values, or generate user conflicts or safety concerns, or impact previously undisturbed areas. Such tracks warranting closure would include (as a guide) those tracks:</p> <ul style="list-style-type: none"> <li>➤ totally or partially within the Conservation Zone;</li> <li>➤ with adverse impacts on stands, or local populations, of listed threatened species;</li> <li>➤ likely to result in the disappearance of locally significant flora species from the reserve;</li> <li>➤ with adverse impacts on significant habitat areas or wildlife corridors;</li> <li>➤ that intrude into previously undisturbed areas of bushland (beyond existing road, management/service track or utility corridors; or the "zone of disturbance" around existing activity/facility nodes; or existing "in-use" tracks/trails);</li> <li>➤ leading to, along, or under escarpments or other unstable areas;</li> <li>➤ creating possible user conflicts or unacceptable safety issues for users or other visitors;</li> <li>➤ that detract from the reserve's key activity/facility nodes or visitor attractions;</li> <li>➤ degrading significant rock formations/features;</li> <li>➤ generating erosion or deposition issues along a significant proportion of their route; or</li> <li>➤ causing obvious landscape "scars", or intruding on views, from key vantage points within the reserve and from surrounding areas.</li> </ul>	Minor	High	Council User groups
VR18	The existing Pony Express Track will be maintained and its use for organised competition will continue in the absence of the Recreational Track Masterplan. Conditions of the associated Development Approval will be enforced.	Negligible	Moderate	Council, Central Tablelands Mountain Bike Club
VR19	The "Gun Club Track" will be closed and rehabilitated, as required by the development approval for The Pony Express track. This can occur in the absence of, and in advance of, the Recreational Track Masterplan	Minor	Moderate	Council, Central Tablelands Mountain Bike Club



Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR20	All tracks proposed in the Recreational Track Plan will be maintained through a programmed system of monitoring/inspections and maintenance, supported by responsive maintenance works as required. Maintenance measures may include the minor re-routing of short problematic track sections where necessary (subject to any planning, assessments and approvals warranted). All maintenance, preventative and other works will be documented. Informal and unauthorised tracks will be closed and rehabilitated – and track alignment, design and treatments will endeavour to minimise the likelihood of the creation of unauthorised/alternative tracks.	Moderate	High	Council, Proposed recreational trail consultative group
VR21	Liaise with other agencies (such as the Rural Fire Service and utilities agencies) as required regarding maintenance scheduling, standards and environmental safeguards that should, preferably, be applied on those sections of the Reserve's fire trail and tracks network that are subject to maintenance by other agencies.	Negligible	Medium (ongoing)	Council, NSW RFS, Utilities agencies
VR22	Horse riding on recreational tracks within the Reserve will not be permitted.	n/a	High	Council

#### Performance Measures and Outcomes:

- Recreational track audit undertaken and Recreational Plan completed.
- Recreational track network progressively established according to the Recreational Track Plan priorities.
- Maintenance programme in place with tracks maintained to planned/determined standards – as assessed by regular track condition audits, works reporting and user feedback.
- Track safety standards achieved – as assessed by number of reported incidents/accidents.
- Increased stakeholder involvement in track management – via the recreational track consultative group and as assessed by participation hours and projects.

## Information, Interpretation and Educational Uses

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR23	Provide improved Reserve name signage, welcome, orientation and visitor information signage at the two Reserve vehicle entries.	Moderate	Low	Council
VR24	Provide Reserve orientation and information signage as a part of the proposed redevelopment of Hassans Walls Lookout and the Second Lookout and incorporate into signage at Bracey Lookout.	Moderate	Medium	Council
VR25	Update the Reserve brochure, website information and other promotional/pre-visit information as/when required – to ensure that intending visitors have easy access to the latest information concerning the Reserve.	Minor	High (Ongoing)	Council
VR26	Develop a dedicated Hassans Walls Reserve webpage and online Application that collates available information on the Reserve's values and provides orientation information for intending visitors. Online interpretive information for the Day Use Areas and specific recreational tracks could be included for use as an online resource for visitors while in the Reserve.	Moderate	Medium (ongoing)	Council
VR27	Incorporate Hassans Walls Reserve into regional tourism promotion campaigns and other tourism initiatives; for example include Hassans Walls Reserve in scenic trails and heritage trails.	Minor	Medium (ongoing)	Council
VR28	Liaise with Central Tablelands Mountain Bike Club to request / negotiate inclusion on their website of only those tracks recommended by the Recreational Track Plan. In advance of the Recreational Track Plan's preparation, liaise with the Central Tablelands Mountain Bike Club in relation to limiting the promotion of mountain biking within the reserve to existing approved routes only (Hassans Walls Road, Norman Henry Drive, fire trails/management accesses, and The Pony Express).	Negligible	High (ongoing)	Council, CTMBC
VR29	Offer guided walks and other face-to-face interpretive services – on a fee paying basis when appropriate – on special occasions and as/when resources permit.	Minor	Low	Council
VR30	Encourage and accommodate use of the Reserve as a venue and asset for environmental, outdoor and other educational uses – including community-based environmental education projects.	Minor	Medium (ongoing)	Council

### Performance Measures and Outcomes:

- Provision of orientation and visitor information signage at Reserve entry points and three Day Use Areas.
- Provision of online website and Application with information on the Reserve's values and visitor information.
- Increased educational use of Reserve – as assessed by booking data, requests, user surveys and observation.
- Establishment and growth in the delivery of face-to-face educational services – as assessed by staff time commitments to education services, and user feedback.

### Unauthorised Activities

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
VR31	Continue to quickly respond to incidences of rubbish dumping and remove rubbish as soon as possible.	Minor	Medium	Council Volunteers
VR32	<p>Monitor the location and frequency of unauthorised activities such as rubbish dumping and firewood collection. A range of adaptive management measures will be implemented according to ongoing and / or escalating rubbish dumping or firewood collection, in order of increasing effort, as follows:</p> <ul style="list-style-type: none"> <li>➤ Education programs to promote the Reserve's intrinsic values and discourage rubbish dumping and firewood collection.</li> <li>➤ Installation of prohibition signage at known hot spots for such activities.</li> <li>➤ Increased presence of Council Rangers in hot spot areas of the Reserve, during the day and early evening hours.</li> <li>➤ Prosecution of offenders and publication/promotion of outcomes.</li> <li>➤ Installation of suitable (sympathetically designed and sited/screened) road or cliff edge barriers in rubbish dumping (including vehicle dumping) trouble spots.</li> </ul>	Moderate	Medium	Council
VR33	Explore measures / opportunities for removal of car bodies dumped south off Hassans Walls Road (for example, training exercise by Emergency Services or other agencies).	Low	Medium	Council, other agencies
VR34	Camping in the Reserve or living in the small caves in the Reserve is not permitted and offenders will be moved on.	Negligible	Low	Council

**Performance Measures and Outcomes:**

Decline over time of rubbish dumping, firewood collection and other unauthorised activities – as measured by instances such activities to which Council responds.

## 14.4 Landscape and Amenity

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
LA1	Maintaining the greater majority of the Reserve as bushland will be an important contributor to protecting its scenic qualities and views.	Medium	Medium	Council Volunteers
LA2	Investigate appropriate planning controls that may be applied to adjoining rural areas (within the visual catchment from Hassans Walls Lookout and Second Lookout) to ensure retention of the predominantly rural vista as seen from within the Reserve and to minimise the visual intrusion/impacts of developments.	Negligible	High	Council
LA3	Maintain the current dispersed character and largely bushland setting of the existing picnic areas and internal carparks, as well as the small-scale and low-profile character of Reserve buildings and infrastructure.	n/a	High (ongoing)	Council
LA4	Possible impacts on the landscape and scenic values will be considered in the siting and design of all future Reserve developments – at all scales from tracks/trails to new structures or facilities. This will include consideration of the visual impacts of visitor use – such as carpark “glare”, reflection from built structures and people in the landscape. Ensure Reserve developments do not impact on the natural skyline of vegetation.	Negligible	Medium (ongoing)	Council
LA5	When radio towers come to the end of their asset life or require significant maintenance to retain them in a serviceable condition, Council will liaise with asset owners and users to consolidate transmission elements on other towers (providing functionality of the asset is not diminished) and encourage the use of non-reflective material and colour that minimise visual impacts.	Negligible	Low	Council Asset owners and lessees

### Performance Measures and Outcomes:

- No further visual intrusion/impacts on Reserve’s skyline due to Reserve of communication tower development – as assessed by photopoint recording.
- Consideration of visual catchment from the Reserve’s southern lookouts included in Council’s planning and development approvals system.

- Existing low-key bush-setting character of Reserve maintained – as determined by user/community feedback and landscape/visual assessments.

### Mining Subsidence and Cliff Stability

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
LA6	Commission a geotechnical study of the rock formations within the Reserve to assess the location and extent of subsidence and rock cracking, the risk of future rock falls and any ongoing monitoring requirements. Priority for the geographical scope of the study should be given to existing and proposed visitor use areas in the first instance should funding of the study be prohibitive. Liaise with the Mine Subsidence Board in commissioning the geotechnical study to ensure the scope of the study is to industry standard.	Medium	High	Council, Subsidence Advisory NSW
LA7	No new additional recreational facilities will be developed in proximity to rock formations until the Geotechnical Study is complete and risks to visitor safety are understood and regarded as manageable	N/a	High (ongoing)	Council
LA8	Undertake a review of the functionality of the escarpment fences and determine those to be retained, upgraded or removed and the need for supporting warning signs. Seek assistance from qualified risk management personnel in conjunction.	Medium	High (ongoing)	Council
LA9	Highlight the potential danger of rock formation instability to Reserve visitors and provide strategically located on-site warning signs at Hassans Walls Lookout and at other visible formations where cracking is obvious. Provide similar warnings on Reserve promotional material and the proposed web page.	Minor	High (ongoing)	Council

### Performance Measures and Outcomes:

- Geotechnical study completed and recommendations implemented according to priority.
- Risk management assessment of escarpment fences completed.
- Suitable public information available regarding potential rock formation safety hazards/risks.

## 14.5 Reserve Management and Administration

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA1	Liaise with the Department of Industry – Lands to include “flora and fauna protection”, or similar, as an additional Reservation Purpose for those Crown Lands that comprise the Reserve	Minor	High	Council, DPI – Lands
RA2	Maintain the status-quo of Reserve management – with the Reserve under the day-today care, control and management of Lithgow City Council.	Negligible	High (ongoing)	Council, DPI - Lands
RA3	Identify opportunities to consolidate the Reserve’s northern and north-western boundary – and realise these as/where practical – to expand the Reserve to incorporate adjacent / fringing bushland areas to ensure these areas are retained and serve as an increased buffer from residential edge effects / pressures and impacts from adjacent urban or disruptive land uses.	Minor (any land transfer or acquisition costs not determined)	Medium	Council, DPI - Lands
RA4	Incorporate the existing road reserve (“unmade” road) entering the south-western portion of the Reserve’s, continuing west from the Donnybrook Fire Trail and east of South Bowenfels, into the Reserve. If/when this area becomes part of the Reserve it will be categorised as “Bushland” and managed as part of the “Managed Use Bushland Zone”.	Negligible	Medium	Council, DPI - Lands
RA5	Establishment a sub-Committee to Council’s Environmental Advisory Committee or similar Committee of Council to facilitate ongoing community involvement in the planning and management of the Reserve. Over time the sphere of interest may expand to address other natural areas managed by Council.	Negligible	Medium (ongoing)	Council, DPI Lands
RA6	Preparation of the Masterplans for Hassans Walls Lookout and Second Lookout and the Recreational Track Plan will include opportunity for community input and comment.	Low	High	Council
RA7	All visitor facilities and infrastructure within the Reserve will be maintained in a safe, serviceable and presentable condition through a programmed system of monitoring, maintenance and replacement - supported by responsive and opportunistic maintenance works, as required. Priority will be afforded to facilities/infrastructure items providing for visitor safety.	Medium	High (ongoing)	Council

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA8	All major new works or major maintenance projects undertaken on the Reserve will be subject to appropriate environmental planning and approval procedures and provide opportunity for community input / review.	Low	High (ongoing)	Council
RA9	Reserve development proposals must address the following (among other/site specific issues): <ul style="list-style-type: none"> <li>➤ environmental sustainability and reversibility;</li> <li>➤ the protection of identified values;</li> <li>➤ demonstrate a clear connection with the Reserve's role and natural bushland setting;</li> <li>➤ public accessibility and equity (where applicable);</li> <li>➤ consistency with the character and scale of a site and any existing facilities;</li> <li>➤ aesthetic impacts, both to and from the Reserve;</li> <li>➤ site amenity and public and staff safety;</li> <li>➤ pollution impacts and risks;</li> <li>➤ traffic and access matters (where applicable);</li> <li>➤ indigenous planting / landscaping or screening; and</li> <li>➤ impact amelioration and remediation measures.</li> </ul>	Minor	High	Council
RA10	Continue Council Reserve staff professional development activities, and liaison with the managers of adjacent natural lands where appropriate, to stay up-to-date regarding natural area and recreation management.	n/a	High (ongoing)	Council
RA11	Retain the locked gate on the fire tail to the communications towers. Liaise with affected agencies to establish a common key to facilitate ease of use of the locked gate.	n/a	Medium (ongoing)	Council, NSW RFS, Utilities agencies
RA12	Discourage / do not promote cliff recreation in Hassans Walls Reserve. Include monitoring of the location and observational evidence of cliff recreation in routine Reserve inspections and monitoring programs.	Negligible	Medium (ongoing)	Council
RA13	Establish a visitor number monitoring program, including monitoring the number of vehicles entering the Reserve and the three Day Use Areas, and use of the recreational track network. Undertake monitoring efforts at repeat times during the year to ensure comparability of results over time.	Minor	Medium (ongoing)	Council



Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA14	Determine the on ground extent of the Thales danger area template that encompasses part of the Reserve. Ensure this area is considered in the Recreational Track Plan. Ensure the template area is adequately signposted where it overlaps/intersects with proposed recreational tracks and visitors are aware of the potential danger.	Low	Medium	Council
RA15	Collate Reserve reports and studies regarding environmental, historical, usage and other data in relation to the Reserve and make available at Lithgow City Council's Library and online on a dedicated website and the proposed Application.	Minor	Medium (ongoing)	Council
RA16	Encourage and support research activities in relation to the Reserve, with results of research available to Council.	Minor	Low (ongoing)	Council
RA17	Prepare an annual report for the Minister for Lands – as required under the <i>Crown Lands Act 1989</i> – that includes details of income, expenditure, assets, liabilities, improvements effected, leases and licences granted or in force, uses made of the Reserve, any particulars of pecuniary interests recorded and other matters as set out in the Act.	Minor	High (ongoing)	Council

#### Performance Measures and Outcomes:

- Additional Reservation Purpose investigated and enacted.
- Reserve values data collected, compiled and publicly available.
- The Reserve continues to be managed by Lithgow City Council.
- Opportunities for community input and comment on major Reserve planning or development initiatives.
- Annual report prepared for the Minister for Lands – as assessed by compliance with statutory requirements.

### Leases and Licences, Special Uses and Commercial Activities

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA18	This Plan of Management expressly authorises a lease to the existing asset owner for the purposes of the operation of a communications tower - for the five communications towers currently within the Reserve. Each Lease will incorporate the minimum area required to safely permit the operation and maintenance of the tower.	Negligible	High	Council, Communication tower owners
RA19	This Plan of Management expressly authorises a lease (5+5 years option) of a portion of the Reserve in Sheedys Gully to Lithgow Pony Club for the purposes of operating a community based, equestrian sport recreation area. The Lease will authorise the presence of associated facilities and infrastructure to reflect existing assets and infrastructure. The Lease area will be revised from the previous lease / licence to Lithgow Pony Club such that it will encompass only currently cleared areas (generally involving introduced grasses, access roads and car park areas) and not the areas of native vegetation contiguous with the Reserve. (It may, or may not, include the Council-owned residence at the north end of Sheedys Gully - see Action RA20 below.) The Lease will include responsibility for pest plant and animal control, restrict encroachments into adjoining native vegetation, and permit access by other Reserve users while including conditions to minimise impacts by other users on the Pony Club's quiet use of the site.	Negligible	High	Council, Lithgow Pony Club

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA20	This Plan of Management expressly authorises the lease (up to a 3 year maximum term, per lease), or licence, of the Council-owned residence (and its surrounds) at the north end of Sheedys Gully. Such a lease or licence may be for occupation, visitor services, environmental education, community purposes, usage by or in conjunction with the Lithgow Pony Club, or other uses as deemed appropriate by Council (and which do not impact on the Reserve's biodiversity or heritage values, visitor enjoyment, or scenic quality). If maintenance and use of this residence is no longer required, or viable, Council may choose to demolish this building and rehabilitate the area to match its surrounds.	Negligible (Moderate if demolition option is pursued)	High	Council
RA21	Licences and permits will not be granted for activities that are purely commodity or product marketing oriented.	n/a	Low (ongoing)	Council
RA22	Inquiries and use/activity applications from commercial interest or organised ("members only") groups will be strictly assessed and reviewed to ensure that the Reserve's values, intended character and settings, and visitor experiences are not compromised; and on-going exclusive use arrangements are not created; and undue demands on Reserve management do not result.	n/a	Low (ongoing)	Council
RA23	Licences or permits will be granted for commercial filming within the Reserve, as required by the <i>Filming Related Legislation Amendment Act 2008</i> , and as consistent with relevant Council policies.	n/a	Low (ongoing)	Council

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA24	<p>This plan expressly authorises the granting of – licences for periods of up to 3 years (by Council and with concurrence of the Minister for Lands), temporary licences (up to 12 months duration), once-off or set (short) duration activity or event permits, and other estates/approvals (excluding leases) – for educational, scientific, community, social, recreational or park management activities (such as fire management or seed collection). Licences will only be granted as consistent with the provisions of the <i>Crown Lands Act 1989</i> and the <i>Crown Lands Regulation 2006</i>.</p> <p>Licences and permits will not be granted for activities that:</p> <ul style="list-style-type: none"> <li>➤ may have a negative impact on natural areas, on endangered ecological communities or threatened species, on historical or cultural sites; or</li> <li>➤ are inconsistent with an area’s values, or have unacceptable effects on the Reserve’s values or intended character and settings; or</li> <li>➤ exclude or unduly disadvantage other users, or are likely to impair an area’s reasonable enjoyment by others; or</li> <li>➤ places excessive demands on Reserve management resources and finances.</li> </ul> <p>In addition, licences and permits will only be granted for activities that are consistent with the management intent, objectives and uses of the Management Zones (as described in this Plan) within which the activity will operate / occur. Licences, permits and activity applications will be subject to particularly stringent assessments within the Bushland Zone.</p> <p>Licences will only be issued for commercial activities where these are:</p> <ul style="list-style-type: none"> <li>➤ consistent with, or ancillary to, the Reserve’s current reservation purpose (and any additional reservation purpose); and</li> <li>➤ do not involve the erection of any building or other substantial structure, or permanent advertising that detracts from the visual qualities of the Reserve.</li> </ul> <p>Appropriate income generation will be implemented consistent with the above licencing specifications.</p>	n/a	High (ongoing)	Council

### Performance Measures and Outcomes:

- Lithgow Pony Club Lease and communication tower lease / licences executed.
- Licences, permits and other estates comply with specified guidelines and restrictions.

### Assets and Infrastructure

Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA25	In the event of a communications tower requiring significant maintenance or replacement, the opportunity for the consolidation of assets onto a reduced number of towers in order to minimise visual impacts (and impacts from the ongoing maintenance of access tracks and power lines within the Reserve) will be investigated. Such consolidation should not be to the detriment of the functionality of the communication assets. Liaison will be undertaken with ACMA, tower owners and co-users to ensure no loss of functionality.  The relevant Leases / licences for towers will include provision for this process.	Minor	High	Council, ACMA, tower owner and users
RA26	In the event of significant maintenance or upgrade of a tower, non-reflective materials and materials that that minimise visual impact will be used. The relevant Leases / licences for towers will include provision for this.	Negligible	Medium	Council, tower owner
RA27	Clarify the ownership of Tower 1 indicated in Figure 9.	Negligible	Medium	Council, NSW Police
RA28	The existing tracks to built assets will be maintained to a 4WD standard on a base of natural material suitable for agency access for maintenance and operations purposes.	Low	Low	Council

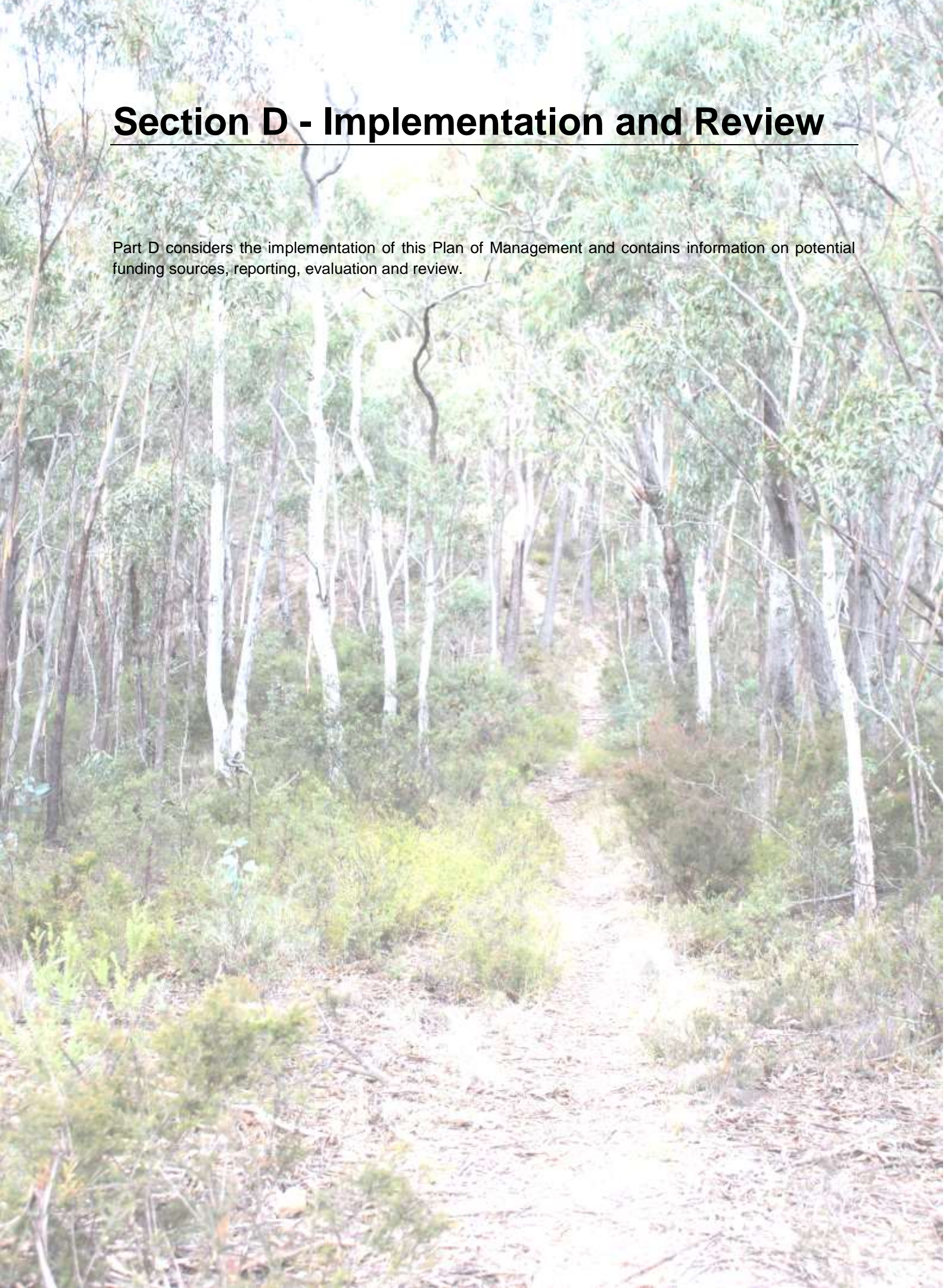
Action No.	Actions	Implementation		
		Resource Estimation	Priority	Responsibility
RA29	Develop effective and on-going communication protocols with utility providers operating services through the Reserve and communication tower owners regarding their management requirements/operations and measures to reduce impacts on the Reserve and its values – especially in relation to service access, track maintenance, soil erosion, vegetation clearing, visual impacts and visitor safety. Negotiate access, maintenance and remediation agreements, standards or protocols where possible. Require, where feasible, the owners/operators of previous abandoned/terminated communications tower sites to undertake remediation/rehabilitation of such areas.	Negligible	Medium	Council, Endeavour Energy, other agencies

**Performance Measures and Outcomes:**

- Investigation of communication tower consolidation undertaken as opportunities arise.
- Effective communication protocols in place between utility providers, communication tower owners and Council.
- Reduced adverse impacts from utilities and communication towers presence/management – as assessed by ad hoc monitoring and observation, and user/.community reports.

## **Section D - Implementation and Review**

Part D considers the implementation of this Plan of Management and contains information on potential funding sources, reporting, evaluation and review.



## 15. Funding

This Plan of Management contains a substantial list of management actions. Some of these are management guidelines, providing policies or directions to guide future decision-making for the Reserve's management.

However many are physical actions that will require the commitment of Council funds or resources – such as staff time – to implement. Council does not have the capacity to undertake all of these, more resource-intensive, management actions immediately. Management and development of Hassans Walls Reserve will ultimately be reliant on, and largely determined by, the funding and resources available to Council. As such the Reserve's management actions must be assessed against the other priorities of Council, and budget allocations assigned as part of Council's wider four-yearly Lithgow City Council Delivery Program and three yearly Operational Plan, annual budget cycles and business planning for Council's various units.

Council also provides funds for the operational management of the Reserve – including staff salaries, contract services, repairs and maintenance and the like – and raises a negligible income from licence fees. However Lithgow City Council has supported and funded the Reserve's management far in excess of any revenue generated by the area. The Crown Lands Division's policy in respect of Crown Reserves is that income generated by a Trust should be reinvested in those reserves under the Trust's management – supported by annual income and expenditure reporting obligations.

In view of these financial realities/constraints a priority has been assigned to each management action – as shown in the actions Tables in Chapter 14 – to reflect their relative importance and implementation timing in order to achieve the Plan's objectives (but also noting that actions which are of a more management guideline, policy or direction-setting character may not require the direct allocation of resources).

In terms of the resourcing and timing of management, the assigned priorities can be described as follows.

High – Considered “essential”, and will be considered in Council's funding processes annually until they can be resourced, then included in the Management Plan and business plan of the relevant unit within Council each year until completed.

Medium – Considered “desirable”, and should be implemented within the life of this Plan and will be reviewed by the responsible unit within Council each year as to their current relevance/importance and consideration for resourcing and/or placement on relevant work plans.

Low – Considered “useful” or longer-term actions, and should be undertaken if resources permit but may not be allocated appropriate resources until formally reviewed or until resources are available for such actions and relevant units within Council should consider including these actions in their respective work plans each year.

Actions can be single tasks or identified as “ongoing” – where the action in question will require funding throughout the Reserve's management and/or the life of this Plan.

Recognising that funding and resources may come from many sources, including volunteer involvement or specific-purpose grant funding, identified Management Actions of different priority may proceed in differing orders or at different rates – and high priority actions need not necessarily precede lower-priority actions. Implementation of some actions may also be contingent on or influenced by the results of other actions, changing management circumstances or opportunities to gain management efficiencies. In some cases, the resources to deliver a longer-term action may be available before a high priority action. This may be due to the amount of money required, or the project being funded from resources other than Council funds, or factors outside of Council's control.



Council may also choose to seek Grant funding from both Commonwealth and State Government grant programmes. Potential grants include the Green Army and National Landcare Programmes (Commonwealth Government) and Heritage Office grants, the Public Reserves Management Fund, Environmental Trust and Bushfire Mitigation Works Funds (State Government).

## **16. Reporting, Evaluation and Review**

### **16.1 Reporting**

The Hassans Walls Reserve Public Recreation Reserve Trust (Lithgow City Council) is required under the *Crown Lands Act 1989* to prepare an annual report for the Minister for Lands at the end of each financial year. The Report is required to include details of income, expenditure, assets, liabilities, improvements effected, leases and licences granted or in force, uses made of the Reserve, any particulars of pecuniary interests recorded and other matters as set out in the Act. Section 32 of the Crown Lands Regulation 2006 lists the required contents of the annual report.

Council may also choose to report on the implementation of the Plan of Management as part of its established reporting practices.

### **16.2 Evaluation**

The objectives, actions and performance measures outlined in the Plan of Management provide a basis for qualitative reporting on performance of Council in managing the Reserve and progress in implementing the Plan of Management. Evaluation of performance should be undertaken at the end of each financial year to align with the Trusts reporting requirements.

The proposed sub-Committee (see Action RA5) should be involved in annual reporting and evaluation.

### **16.3 Review**

Typically a Plan of Management will remain relevant and have a time horizon of ten (10) years. However, management strategies and actions can be reviewed and updated prior to the ten year sunset period if required. The fact that a plan of management has Ministerial approval does not mean that the management direction cannot change in the future. Ministerial approval can be given to amend a plan provided the proposed changes have firstly been exhibited for public comment.

Implementation of this Plan and its ongoing relevance will be reviewed annually as part of Council's internal and external reporting processes.

Consideration of the need for a major review and update of the Plan of Management will occur ten years from the date of adoption of the Plan.

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