

Black Hill Reserve

Master Plan

Volume 1- December 2014



Black Hill Reserve Master Plan – Volume 1

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1. Introduction

1.1 Black Hill Reserve

Black Hill Reserve is approximately 21 hectares in size and is located just over 1 kilometre north-east of the Ballarat CBD. The Yarrowee River, Ballarat's major linear corridor, adjoins the Reserve to the south. Urban areas of residential development adjoin the Reserve to the north, east and west. Other public reserves and features in the area include the Black Hill Primary School, Chisholm Street Reserve, Binney Street Reserve, Peel Street Park, the Eastern Oval and Russell Square.

The surrounding area is named after Black Hill, which rises 495 metres above sea level making it the highest land in central Ballarat. It is a dominant landmark within the urban landscape of Ballarat and the lookout area at the top of the hill arguably provides the best panoramic views of the City.

Black Hill Reserve is historically significant as it was subject to extensive mining activity in the 1800's and early 1900's. The resulting terrain is therefore steep and undulating with significant areas of exposed soils. The landscape has since been heavily forested with mature pine trees plantations and more recent plantings of native trees.

The Reserve has traditionally been used for viewing the City and for a range of passive recreation activities. In recent times Black Hill Reserve has also become a focal point for downhill mountain bike riding in Ballarat and in 2013 the City of Ballarat endorsed a report recommending that the Reserve be further developed as a municipal mountain bike park without excluding other non-mountain biking visitors/use of the site.

The land is zoned PPRZ (Public Park and Recreation Zone) in the Ballarat Planning Scheme. The entire Reserve falls within the Black Hill Heritage Precinct and the southern end of the Reserve within 200 metres of the Yarrowee River is designated as an Area of Cultural Sensitivity. The majority of the Reserve is Crown Land with the City of Ballarat appointed as the ‘Committee of Management’. Black Hill Reserve is designated as ‘District Recreation Parkland’ within the 2009 Ballarat Open Space Strategy (BOSS).

1.2 Master Plan Background

The BOSS recommends the development of Master Plans for all regional and district level reserves. Black Hill Reserve has had a number of plans developed for certain areas or features but has never had a comprehensive Master Plan or Management Plan to guide the overall development and management of the Reserve.

A number of recent and emerging issues are now driving the priority and need for the development of a Master Plan for Black Hill Reserve. These include issues related to:

- Council’s support for developing the Reserve for downhill mountain bike riding and events and the recent construction of mountain bike trails.
- Closure of the lower car park area for public safety reasons due to ground subsidence from previous mining activities.
- Community concerns about the ageing and safety of infrastructure around the lookout area and the need for improved amenities to provide for visitors and tourists to the Reserve.
- The need for improved fire management, weed control, erosion control and vegetation management.

Given the above issues in October 2013 the City of Ballarat Council requested a Consultation Committee to be formed to prepare a Master Plan for the Black Hill Reserve. A Consultation Committee made up of key user groups and stakeholders was formed and met to identify and discuss a complex range of issues, opportunities and background documents relating to the Reserve. These were summarised into a ‘Black Hill Reserve Masterplan - Briefing Paper’ in February 2014 (See Black Hill Reserve -Draft Master Plan -Volume 2: Supporting Document). The Committee then developed a set of draft ‘Visions and ‘Objectives’ to help shape the direction of the Master Plan.

The Briefing Paper and draft Vision and Objectives were presented to Council in May 2014, at which time Council recommended that Officers undertake a community engagement process to get the broader communities input into the development of the draft Master Plan.

In June 2014 the City of Ballarat commenced a broad process community engagement process by conducting an ‘Open House Drop in Session’ at the Black Hill Primary School. Community consultation ran for four weeks, during which time sixty six submissions were received. The feedback from the Open House and the submissions were then complied into a ‘Black Hill Reserve Master Plan Community Engagement Summary Report’ in July 2014.

The report provides Council with a clear indication of the community’s thoughts, ideas and priorities for the future of Black Hill Reserve and for the development of the Draft Master Plan. (See Black Hill Reserve - Draft Master Plan -Volume 2: Supporting Document).

The Black Hill Reserve – Draft Master Plan was endorsed by Council on September 8th 2014 with the recommendation that it be placed on public exhibition to seek community comment and feedback before developing the final Master Plan.

The Master Plan was placed on public exhibition through September- October 2014, during which time several responses and submissions were received. Those comments have been considered in the development of this Master Plan.

1.3 Master Plan Format

The Master Plan has been divided into two Volumes.

Volume 1 is the main Master Plan document. It summarises the background, the community consultation process, and the Master Plan vision, objectives, directions and recommendations. It includes the Master Plan drawings at the end of the document.

Volume 2 is the supporting document. It contains some of the more detailed background documents prepared and considered during the development of the Master Plan including the ‘Draft Master Plan Briefing Paper’ and the ‘Summary Report’ from the Community Engagement process.

1.4 History

Black Hill was originally known as ‘Bowdun’ by the local Watha Wurrung but was named ‘Black Hill’ by William Urquart, who surveyed the region in 1851 (Black Hill Heritage Precinct, 2006). Prior to mining commencing in the 1850’s the landscape was densely covered with native forest including Messmate Stringybark (*Eucalyptus obliqua*), Peppermint Gums (*Eucalyptus radiata* and *Eucalyptus dives*), Wattles (*Acacia spp.*) and a middle storey of Tea-trees (*Leptospermum spp.*), Heaths and Peas, Hopbush (*Dodonea spp*) and Bursaria (*Bursaria spinosa*) (Department of Conservation and Lands, 1989).

The ‘Black Hill Heritage Precinct Study (2006)’ describes in detail the history and impact of gold mining within the Reserve from the 1850’s through to the 1920’s. It also details the history of landscape and ‘beautification’ works to create a lookout and public reserve thereafter.

The chronological timescale below provides a summary of the historical use and development of the Black Hill Reserve from the Heritage Study and other sources:

1851 – Surface Gold first discovered at Black Hill.

1851-1852 – Black Hill Quartz Crushing Company commenced shallow alluvial and open cut mining.

1853-1875 – Deep alluvial lead mining and underground and open cut mining.

1854-1918 – Major mining of quartz reefs in the underlying Ordovician bedrock. Extensive clearing of native vegetation continued, leaving the landscape treeless.

1907 – Initial lookout area reserved as Public Recreation area by East Ballarat Council. Further portions of land added to Reserve until 1983. Mining operations began to slow down and public interest in ‘beautification’ and re-afforestation increased.

1908 – Eight more acres of land to the north added to the Reserve.

1913 – School children began planting trees on Arbor Day.

1917 – Black Hill Progress Association formed for ‘beautification of the locality’. School children planted over 1000 *Pinus radiata* in avenues. Lookout erected and paths formed into the Reserve.

1918 – Council appointed as Committee of Management to control Reserve for public purposes. Black Hill Progress Association plant 400 Cypress and Pines in honour of World War one servicemen.

1919 – Trees planted by the Black Hill Progress Association to form an avenue from Chisholm Street along Sim St to the Reserve to be known as ‘Peace Avenue’.

1920’s to 30’s – Black Hill Progress Association continue to improve the Reserve through extensive tree plantings. Further plantings, pathway works and fencing works undertaken as part of government sustenance and relief schemes.

1940 – Tourist roadway constructed.

1946 – Clear felling of Pines on western section of pines.

1950 – Entrance road paved with bitumen and improvements made to the lookout at the summit.

1981 – 6 acres of land formerly occupied by Ballarat East Brickworks Pty Ltd added to Reserve.

1982 – First native plantings commenced with local Scout groups and residents planting 1982 trees on the western side of the Reserve.

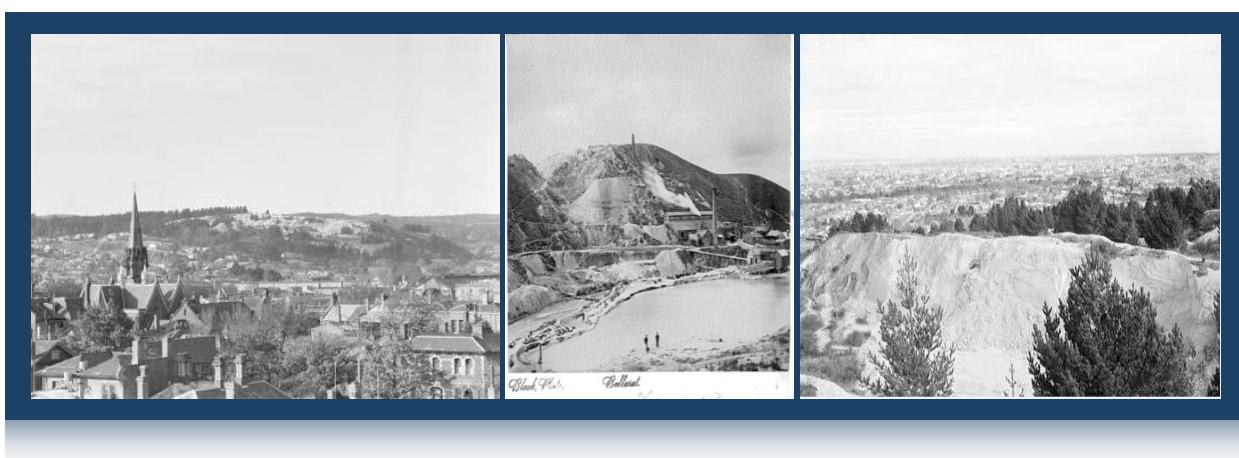
1990’s – Areas of mature Pine trees on western slopes clear felled to reopen views from lookout. Additional drainage and fire access tracks constructed. Lookout and car park area fenced and planted. Several community plantings of native trees and shrubs in cleared areas. Pine seedlings cleared and pedestrian paths installed with ongoing support of the local Eureka Apex Club.

2001 – City of Ballarat commenced investigation of ground subsidence of the lookout car park.

2008 – Significant pavement cracking and holes opened up in lookout car park. Section of car park closed to minimise public risk. Preliminary car park geotechnical assessment prepared by Mining One consultants. Report for development of mountain bike trails at Black Hill prepared.

2011 – Further report and analysis of geotechnical issues prepared by Mining One consultants. Arboricultural report developed by Arborsafe for overall Reserve.

2013 – Report for development of Black Hill Reserve as a site for Mountain Bike Trails prepared and adopted by Council. Council endorsed proposal for development of Master Plan through a Consultative Committee.



Left: Views to Black Hill Reserve –1956

Centre: Black Hill Mining Company operations – Circa 1880’s

Right: View over Ballarat from Black Hill Reserve Lookout - 1957

2. Strategic Context

Many reports, strategies, plans and documents have been prepared in recent years that have a direct impact on the Black Hill Reserve. All of these documents have been appropriately considered in the development of the Draft Master Plan and management recommendations for the Black Hill Reserve. All of the documents listed in this section are reviewed and summarised in greater detail in the Briefing Paper in Volume 2.

2.1 City of Ballarat Reports

There have been a number of reports presented to the City of Ballarat in recent years relevant to the future development and management of the Black Hill Reserve.

- Black Hill Reserve – Master Plan - November 2003
- Black Hill Reserve Lookout and Management Strategy -June 2011
- Black Hill Reserve Management Plan Update - September 2012
- Crossing Borders Tracks and Trails Project For Endorsement – October 2013
- Black Hill Reserve – Management Plan Update - October 2013
- Black Hill Reserve – Draft Master Plan – September 2014

2.2 City of Ballarat Strategic Documents

The City of Ballarat has several strategic documents that support and guide the development of Master Plans and the beneficial outcomes of implementing Master Plans for parks such as the Black Hill Reserve.

- Ballarat Open Space Strategy (BOSS) – City Of Ballarat (2008)
- Ballarat Recreation Strategy –City Of Ballarat (2014)
- Health and Wellbeing Plan City Of Ballarat 2009-13
- Ballarat Bicycle Strategy (2014-2019)

2.3 Black Hill Reserve Documents

Since 2006 several documents have been prepared for the Black Hill Reserve relating to specific site characteristics, activities, and proposed developments and management issues.

- Black Hill Heritage Precinct – City of Ballarat Heritage Study (Stage 2): Heritage Precincts 2006
- Proposed Development of Mountain Bike & Multi-Use Trails - World Trail Pty Ltd (2008)
- Black Hill Lookout Car Park -Geotechnical Assessment – Mining One Consultants May 2011
- Rehabilitation of the Black Hill Reserve - Katie Cunningham - University of Melbourne - May 2012
- Black Hill Lookout Reserve - Arboricultural Report - Arborsafe - July 2011
- Crossing Borders Tracks and Trails: Volume 2 Black Hill MTB Park - Insight Leisure Planning (2013)
- Black Hill Lookout - Fire Management Plan - Draft October 2013

3. Master Plan Development

3.1 Consultation Committee

A Consultation Committee was established in October 2013 to oversee the development of the Master Plan for Black Hill Reserve. The Committee consisted of representatives of key user groups and stakeholders including:

- Department of Environment and Primary Industries (DEPI) who are representatives of the Crown (the land owner)
- City of Ballarat including; Parks and Gardens, Recreation, Fire Prevention, Strategic Planning and Design (the appointed Committee of Management)
- Club MUD (downhill mountain bike group)
- Ballarat Sebastopol Cycling Club
- Local resident with historical involvement with community planting at Black Hill

3.2 Major Issues

The Committee identified and discussed all of the major issues to be considered as part of the preparation of the Master Plan. The major issues are discussed in greater detail in Volume 2 of the Draft Master Plan and are listed below:

- Land Ownership and Management
- Mountain Bike (MTB) Park Development
- Access and Connectivity
 - Public Vehicle Access
 - Emergency and Maintenance Vehicle Access
 - Pedestrian Access
 - Bicycle Access
- Public Amenity and Infrastructure
 - Car Parking
 - Public Toilets
 - Viewing Platform
 - Shelter and BBQ
 - Park Furniture and Fencing
 - Signage
- Geotechnical
 - Lookout Area
 - Erosion and Drainage
- Vegetation Management
 - Fire Management
 - Tree Management
 - Weed Management

The Committee then met to consider the Briefing Paper and to establish a draft vision and objectives to guide the further development of the Master Plan. The Briefing Paper and draft vision and objectives were presented to Council in May 2014, where Council recommended that the broader community be consulted before developing the Draft Master Plan.

3.3 Master Plan Vision

The Vision for the Black Hill Reserve Master Plan established through the Consultation Committee is:

To recognise Black Hill Reserve as a significant Ballarat landmark through the preservation and enhancement of its recreational, historical, and environmental features to encourage greater use and enjoyment of this unique parkland.

3.4 Master Plan Objectives

The Objectives for the Black Hill Reserve Master Plan established through the Consultation Committee are:

Active and Passive Recreation

- *To develop Black Hill Reserve as Ballarat's premier site for mountain biking by upgrading existing, and developing additional mountain bike trails whilst also constructing park facilities to support their increased use by the community, clubs and other organisations.*
- *To create design features and elements within Black Hill Reserve to encourage shared and multi-functional uses for a variety of active and passive recreational purposes.*
- *To improve and encourage pedestrian access to and within Black Hill Reserve by developing a range of safe paths and trails that provide connections between the surrounding street network, car parks and the Yarrowee River to key features within the Reserve such as the lookout area.*

Lookout Area and Tourism

- *To increase the community's use of Black Hill Reserve and the lookout area by improving public facilities and features including: the viewing platform, public toilets, shelters for bbq facilities and weather protection, picnic areas, seating and signage, and a safe and accessible path and trail network.*
- *To improve and increase access to the Black Hill Reserve for tourists, motorists, and for events and activities by providing a range of formal and informal car parks around the Reserve.*

Landscape and Environment

- *To protect and enhance the culturally significant landscapes and vegetation of Black Hill Reserve, in particular the established pine plantations areas and historical community plantings and avenues.*
- *To improve and enhance the habitat and environmental qualities of recently planted indigenous and native vegetation areas through appropriate management practices and additional indigenous plantings in suitable areas.*
- *To improve safety and the environmental amenity of Black Hill Reserve by undertaking new plantings to reinforce the existing planting themes, by implementing vegetation works to improve passive surveillance from surrounding areas, and by organising works to reduce erosion and areas of weed infestation.*

History and Interpretation

- *To promote and improve the communities knowledge of the historical use and development of the Black Hill Reserve by preserving and enhancing its historical landscape features and providing new features and interpretive signage to reinforce the historical themes.*
- *To promote Black Hill Reserves significant mining history and geological features by identifying and, where possible, providing safe access to old mining relics, escarpments, exposed layers of natural bedrock, and old mine shafts.*

4. Community Engagement Process, Outcomes and Directions

4.1 Community Engagement Process

Council commenced a process to engage with the broader community in June 2014. Local residents, community groups, and the Black Hill Primary School community were invited to an 'Open House Drop in Session' and free bbq at the Black Hill Primary School. The Drop in Session was widely promoted through letter drops, mainstream and social media, and the school newsletter. The community were invited to attend to share their ideas and comments to assist Council in developing the Master Plan.

A workshop was also conducted with a group of 30 student leaders from the Black Hill Primary School to gain their ideas for the Black Hill Reserve.



Approximately 130 members of the public attended the Drop in Session and actively identified their preferred concept for the lookout, and their preferred draft objectives for the Reserve. Attendees and the public were also asked to fill in a submission and feedback forms asking them various questions about the Reserve.



The community engagement period ran for four weeks, during which time sixty six submissions were received, giving Council a clear indication of the community's thoughts, ideas and priorities for the future development of Black Hill Reserve and for the Draft Master Plan. The community consultation process was summarised into a report and distributed to all stakeholders and attendees.

4.2 Community Engagement Outcomes

The Community Engagement outcomes have been documented into a Summary Report which is included in Volume 2 of the Draft Master Plan. A summary of the engagement outcomes and feedback is as follows:

Lookout Concepts

Two concepts were presented for redevelopment of the Lookout Area.

Concept A aimed to fix up and make safe what is already there. This included fixing the lower section of carpark to make it safe and accessible to vehicles again, and to make the existing steps, fences and viewing platform safe, with some new park furniture and improved views. The estimated cost of this concept was \$1,300,000.

Concept B aimed to keep the lower carpark section closed to vehicle traffic and to redevelop the upper carpark area with improved amenities. It included the construction of a new upper carpark area with bus turnaround area, a new viewing platforms and steps, public toilets, bbq and picnic facilities, signage, park furniture and improved views. The estimated cost of this concept was \$1,000,000.

When asked which concept they preferred 86% of respondents on the night preferred Lookout Concept B, which basically delivered more infrastructures for less cost.

Feedback Forms

The Feedback Forms asked respondents a series of questions. The forms have been analysed and the most popular or common responses are presented in order.

*What are your **main activities** at Black Hill Reserve?*

1. Walking
2. Exploring
3. Sightseeing
4. Mountain bike riding

*What are your **favourite things** about Black Hill Reserve?*

1. Sightseeing and Views
2. Walking
3. Trees and Landscape
4. Peace and quiet
5. Geography History
6. Bike riding

*'What **do you like** about Black Hill Reserve?*

1. Scenic outlook and amazing views
2. Peacefulness and serenity, openness, a forest and breathing space so close to City
3. Bushland, topography, rugged and wild character, a mystery
4. Walks and walking paths and variety of different trails challenging for walking
5. Trees, and plants, biodiversity, native plants and animals and birdlife
6. Mountain bike riding and trails

*What **don't you like** about Black Hill Reserve?*

1. Rubbish, graffiti, vandalism and neglect
2. Anti-social behaviour creating a lack or sense of lack of security
3. General lack of management particularly weeds and current state of vegetation
4. Impact of mountain bike trails on the environment, trees, history and other users.
5. Not very welcoming with lack of facilities at lookout area, and poor access and use

What *improvements or changes* would you like to see at Black Hill Reserve?

1. Better maintenance including weed control, cleaning up vegetation, graffiti removal
2. Better facilities including viewing platform, bbq, toilets, picnic tables, seats, bins, signage, steps, walking paths etc
3. Better MTB trails but limit and restrict the extent and impact
4. Improve natural habitat, more native plantings, more tree cover and revegetation
5. Create an improved and respected environment but do not 'overdevelop'

Please rank your *priorities for the future development* of Black Hill Reserve from 1-10 (1 being the highest). Responses were tallied and aggregated from their first three choices.

1. Improved Tree and Vegetation Management
2. Improved Signage (Directional, Management, Historical and Interpretive)
3. Improved Pedestrian Paths
4. New or Improved Viewing Platform/s
5. New Toilets
6. Mountain bike trails
7. BBQ
8. Car Parking
9. Increased Bio-Diversity

4.3 Community Engagement Directions

The community engagement process supported the draft Master Plan Vision and Objectives. The ideas, comments and data collected through the community engagement process also provide 'direction' for the future development and management of Black Hill Reserve and for the community's priorities for those works.

The 'Directions' for the Master Plan resulting from the community engagement process are summarised into categories that align with the Master Plan Objectives.

Active and Passive Recreation



- Continue to support and encourage the use and development of Black Hill Reserve for mountain bike trails, activities and events but ensure that the bike trail design and infrastructure minimise the impact on other Reserve users and the environmental and historical features of the Reserve.
- Improve and extend existing walking trails and paths to improve walking opportunities within the Reserve and pedestrian connections to Black Hill Reserve from surrounding roads and open spaces.
- Increase the opportunities for Black Hill Reserve to be used for a variety of active and passive recreation purposes by providing new amenities and improved infrastructure to support those uses such as a BBQ and picnic facilities, shelters, toilets, paths, signage, and a variety of interesting landscapes.

Lookout Area and Tourism



- Permanently close the lower car park to vehicles and redevelop the upper car park and lookout area with improved car parking and bus turnaround and loading area.
- Provide new viewing platforms, signage, pedestrian paths, fencing and amenities including BBQ and picnic facilities, shelters, seating and toilets.
- Provide opportunities for increased visitation and events with capacity for overflow parking and infrastructure to support mobile stages and food catering vans.
- Enhance the main entrance experience to the lookout with new entrance signage and new footpaths, and improved road infrastructure on the Sim Street approach road.

Landscape and Environment



- Where possible preserve the wilderness, ruggedness and serenity of the Reserve by minimising the impact of any new developments or improvements.
- Maintain existing pine plantations for their cultural and landscape value but further enhance and improve the bio-diversity of recently planted native areas through appropriate management practices and additional plantings of indigenous natives.
- Improve the overall management of vegetation to improve passive surveillance, reduce weed growth, control erosion and make the Reserve feel safer and more inviting to locals and tourists, particularly around the lookout area and designated walking trails.
- Introduce measures to minimise the threat of fire through actions such as implementing the Draft Fire Management Plan, improving fire access tracks, creating buffers and clearing understory to adjoining residential boundaries, retaining open grassland areas and tree thinning in dense areas.

History and Interpretation



- Preserve, enhance and improve interpretation of Black Hill Reserve's historical landscapes and features.
- Develop and provide interpretive signage and where possible, incorporate design themes into built elements and structures to promote Black Hill's significant mining and development history.
- Identify and where practical provide safe walking access to old mining relics and geological features such as escarpments, exposed layers of natural bedrock, and old mine shafts.

5.0 Master Plan and Management Recommendations

The recommendations in this section have been developed as a direct result of detailed discussions amongst members of the Black Hill Reserve Consultation Committee, the outcomes and directions established through the community engagement process, the responses received through the exhibition of the Draft Master Plan, and the application of these to the broader site opportunities and constraints.

5.1 Master Plan Area Boundaries

Black Hill Reserve is over 20 hectares in size and it is therefore difficult to develop detailed maps and plans at a scale that are clearly legible and easily manageable. The landscape, including the topography and vegetation types, also varies considerably across the Reserve and so for the purposes of this Master Plan, the Reserve has been broken up into four major areas with recommendations and drawings prepared for each area.

Area 1 – Open Parklands

Area 2 – South-Western Slopes

Area 3 – Lookout

Area 4 – South -Eastern Slopes

Each area has been assessed and summarised in terms of the topography, vegetation types, accessibility, recreational infrastructure and uses, and any significant issues specific to that precinct. Recommendations are then provided for each precinct which have informed the Master Plan drawings.

5.2 Area 1 – Open Parklands



The northern section of Black Hill Reserve has relatively gentle slopes that fall towards Chisholm Street to the north and Napier Street to the west. The landscape to the north is characterised by single specimen plantings of established native and exotic trees amongst large areas of lawn; creating an open parkland style setting. A wide road frontage provides for excellent views into the Reserve from Chisholm Street and the large lawn expanses allows for passive recreational opportunities not available elsewhere within the Reserve.

The Chisholm and Sim Street intersection provides the main vehicle entry point to Black Hill Reserve. The entrance and identification of the Reserve is relatively obscure and easily missed for first time visitors. A memorial avenue of pine trees line both sides of Sim Street and helps to formalise the entry to the lookout.

An area of mixed native plantings and pine regrowth exists to the south of the open parkland area. The native plantings replaced an established pine plantation which was felled in the early 1990's. The rapid growth of both the planted natives and pine seedlings has resulted in very dense thickets of vegetation that are difficult to manage and pose issues in terms of public safety, passive surveillance and fire management. Some of the native planting areas around the western residential boundaries of the precinct also have dense undergrowth and old trails that have not been cleared for several years.

The western portion of this area is low lying and runoff from the steeper slopes often collects in shallow ponds through the wetter months. This provides an opportunity for wetland development to improve water quality before it leaves the Reserve and enters the larger catchment.

Chisholm Street, Sim Street and Napier Street provide several points of access for maintenance vehicles into the Reserve. Pedestrian access is however poor, particularly along Chisholm Street and Napier Streets, as there are no constructed footpaths.

Overhead powerlines along the Chisholm Street frontage makes the management of some of the larger trees near the powerlines hazardous and difficult.

Recommendations

- Retain and enhance the open parkland character of the Chisholm Street frontage for passive use only by excluding the development of bike associated infrastructure including bike trails, skills loops, pump tracks and jumps and by selectively removing and pruning trees that block views into the Reserve; and that grow into the overhead powerlines along Chisholm Street..
- Redevelop mountain bike trails in the areas shown, remove bike trails that do not form part of the identified trail network, and progressively reinstate with indigenous native vegetation through this area.
- Utilise the open parkland area for potential spill over car parking for major events.
- Improve the main entrance into Black Hill Reserve by installing a new entrance sign and feature, maintaining and enhancing the memorial avenue of Pine trees on Sim Street, replacing the old post and rail fence along Chisholm and Sim Street, and carrying out road works to improve drainage and better define the roadway, crossovers, and naturestrips.
- Install a new concrete footpath along the Chisholm Street frontage and bus stops to the lookout to improve pedestrian and public transport access to the Reserve.
- Selectively thin native trees and remove all pine regrowth and weeds from native planting areas to improve habitat, improve passive surveillance, reduce fire risk, and increase access for maintenance.
- Selectively uplift trees and remove shrubs and undergrowth within a 10 metre buffer of all adjoining residential boundaries to reduce the risk of fire.
- Formalise, develop and clearly sign shared vehicle and walking trails to improve access within and through the Reserve.
- Install wetlands into low wet areas to increase habitat diversity and improve water quality.
- Improve landscaping, parking provision and bike trail head infrastructure near the Napier Street entry to provide additional connectivity into the Reserve.

5.3 Area 2 – South West Slopes



The south western section of Black Hill Reserve has topography that generally falls from the lookout to the south-west. The slopes vary from gentle around Napier Street to very steep in the south. They flatten off along the southern boundaries adjacent to the Yarrowee River.

The landscape is characterised by; a mix of native plantings on the flatter slopes to the north, established pine plantations with several open areas of grass to the west, dense established pine trees on the steep embankments to the south, and scattered pine trees amongst extensive areas of weed infestation and exposed subsoils on the steep slopes to the south-west.

There are several interesting mining relics and features through this area including the ‘Pink Cliffs’, an old brick battery, caves and a mineshaft. The caves and mineshaft are currently fenced off inside a large dug out area at the base of a steep escarpment and are only accessible from the southern end of the Reserve. There is an opportunity to make these features safe, provide access to them, and add interpretive signage to help promote the mining history of the Reserve.

The first significant areas of native trees were planted in this area by local Scout groups and residents in 1982. Although not indigenous these planting have generally survived well, with periodic burning to control weeds and undergrowth. Further indigenous natives were planted throughout the areas cleared of Pines in the early 1990’s. Pine seedlings and weed regrowth now compromise the bio-diversity values of the native planting areas.

Access for maintenance vehicles is generally well provided for with linkages to Napier Street, Victory Lane and Clissold Street to the east, and from Whitefield Street and the Yarrowee River to the south. Pedestrian access from the Yarrowee River up through the steeper southern slopes of this precinct is informal and not well defined. This may discourage pedestrian access from the Yarrowee River to the lookout, and vice versa.

A spider’s web of recently created bike trails and older pedestrian trails traverse some of the steeper and exposed slopes leading to the bottom of the hill. The steeper slopes are well suited to downhill mountain bike courses however several of the bike and pedestrian trails lack clarity and definition of their hierarchy and function, or where they lead to or from. Bike jumps and mounds have been constructed on the lower, flatter areas of this section and are well located to cater to bike riders riding along the Yarrowee River.

Recommendations

- Redevelop mountain bike trails and routes to approved designs and ensure crossing points with shared paths and walking trails are clearly delineated with appropriate signage.
- Provide new park furniture and signage to support and promote increased use of the precinct for passive recreation and historical interpretation.
- Improve maintenance vehicle access and pedestrian access into the Reserve from Napier Street, Victory Lane, Clissold Street and the Yarrowee River.
- Improve informal parking and pedestrian access into the Reserve from Whitefield Street, the Yarrowee River and pedestrian bridges on the southern side of the Yarrowee River.
- Remove pine regrowth, weeds and non-native under-storey from native planting areas and revegetate with indigenous natives to improve habitat and bio-diversity.
- Selectively uplift trees and remove shrubs and undergrowth within a 10 metre buffer of all adjoining residential boundaries to reduce the risk of fire.
- Remove bike trails that do not form part of the identified trail network, and reinstate with the appropriate vegetation type for that area.
- If required provide additional pump track and bike jump facilities along the lower section of the Reserve adjacent to the Yarrowee River.
- Where access can be practically provided, make safe old mining relics and provide interpretive signage.

5.4 Area 3 – Lookout



The lookout precinct is the highest and flattest part of Black Hill Reserve with a sealed road entry, also making it the most accessible. From the lookout the topography falls away gently to the north, very steeply to the south and relatively steeply to both the east and west. The main viewing platform provides for panoramic local views of the Ballarat CBD, and distant views above mature pine trees to south-west of the Ballarat region. Closer views of East Ballarat are available from the southern end of the lower car park area.

The landform around the lookout has been highly modified due to past mining activities, leaving steep escarpments, deep gullies and exposed cliff faces that reveal the underlying geology and help to identify the historical use and development of the Reserve.

An avenue of established pine trees line the approach along Sim Street but the lookout area itself is fairly open with some recent native plantings around the carpark and on the eastern and western slopes. Both areas of native revegetation have a high presence of pine seedling regrowth and weed infestation obscures views and is difficult to manage given the steep terrain.

The lookout area has the highest level of provision of park infrastructure in recognition that it is the main feature and drawcard of the Reserve. The lookout area includes a mix of built and constructed elements to provide amenity and support public use including formalised car parking, a viewing platform, fencing, lighting, picnic facilities, mown lawns, pedestrian trails, new bike trails, and various types of signage and plaques.

Many of the features and public facilities around the lookout are in poor condition and are either unsafe or unattractive. Several features are arguably not fit for their intended purpose including: the viewing platform, the paths and steps leading down to the western gully, safety fencing and signage.

There is also a lack of facilities to provide for increased passive use of the Reserve or to make the lookout more appealing to locals and visitors. This includes; no capacity for buses to turnaround or park; no bbq, picnic shelters or public toilets; and no signage to identify the history of the Reserve or to promote short walks or access to other features in the Reserve.

The lower carpark area south of the viewing platform is currently closed to the public as it is unsafe for vehicles due to cracking and subsiding sub surface soils. Public car parking is still provided for close to the viewing platform but visitors cannot park in their cars to look at views over the City. Feedback from locals during community consultation is that since the closure of the lower car park undesirable behaviour and vandalism at the lookout area has been significantly reduced.

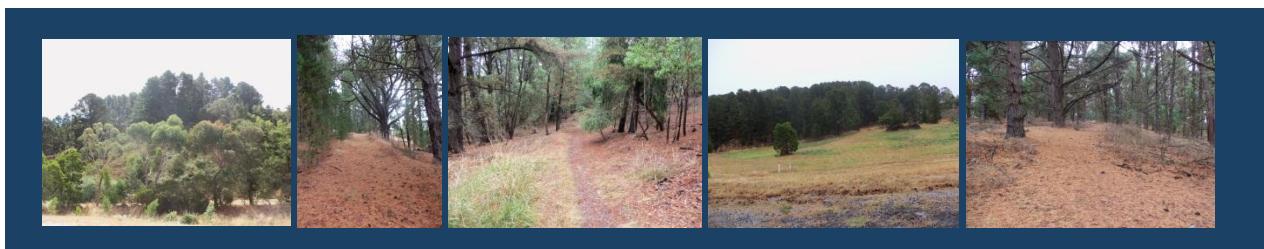
Commencing from lookout carpark are the ‘Open Cut’, ‘Alluvial’ and ‘Deep Lead’ bike trail heads. These trails form part of an integrated network of mountain bike trails that lead down the south-eastern and south-western slopes towards the Yarrowee River. Some recent bike trails are not signed or designated as bike trails so it is not clear where they lead to or what their function is.

A number of pedestrian trails also lead from the lookout area to various parts and features of the Reserve. A shared vehicle and pedestrian trail provides access to a small lookout area to the south-east. This lookout area provides views not available from the main lookout area to Mt Warrenheip and the south-west part of the City. Several informal trails provide access to the eastern sides and boundaries of the Reserve. The main pedestrian trails from the lookout provide access down the western embankments to a gully and the ‘Pink Cliffs’ however the steps, safety railings and small bridge sections are in relatively poor condition. Redevelopment of both steps and the trail would provide an ideal opportunity for a short 15-20 minute walk from the lookout that could also take in some of the more interesting landscape and historical features of the Reserve.

Recommendations

- Redesign and redevelop the main car park area to provide formal parking for up to 30 vehicles and to cater for buses to be able to turn around and park.
- Remove the existing viewing platform and redevelop it as a key attraction and feature of the lookout and Reserve. Consider utilising a cantilevered design that includes historical mining and industrial themes and incorporates the old bronze indicator disc into the new design.
- Provide new public toilets near the viewing platform and parking area.
- Provide bbq and picnic facilities, shelters and seating near the carpark and open parklands area to encourage greater use of the Reserve for passive use and events.
- Selectively remove, prune and uplift trees and shrubs around the lookout area to improve views and passive surveillance to other parts of the Reserve.
- Provide new park furniture and signage to support and promote increased use of the precinct for passive recreation and historical interpretation.
- Provide external power outlets and an area near the lookout to encourage and enable small stages, mobile food vans, or other infrastructure to temporarily set up for events.
- Redevelop the existing steps and pedestrian trail to create a short 15-20 minute loop walk commencing and finishing at either end of the lookout.
- Remove pine regrowth, weeds and non-native under storey from native planting areas to improve habitat, access, maintenance and views from the lookout area.
- Remove the redundant car park and kerb areas of the lower car park and convert these areas into open grassed areas with feature tree planting for shade and space for temporary shelters for events.
- Provide a formal viewing area to the lower lookout and install durable safety railing to prevent access to the top of the steeper cliff.
- Formalise, develop and clearly sign designated vehicle access tracks, pedestrian paths and bike trails to improve access within and through the Reserve, particularly from the lookout area to other key features within the Reserve.
- Minimise the impact of the trail heads from the lookout area particularly where they may compromise views, public amenity, environmental, or historical features.
- Remove trails that do not form part of the identified trail network, and reinstate with the appropriate vegetation type for that area.

5.5 Area 4 – South Eastern Slopes



The south-eastern precinct has fairly gentle slopes close to the lookout. The topography then falls away quite steeply to the south-east with several prominent gullies and ridges, before the slopes flatten off at the base of the Hill towards Brooksbank Court and Whitefield Street.

The majority of the landscape is characterised by extensive and dense areas of established pine trees with minimal understory and weed infestation, relative to other parts of the Reserve. Old diggings and collapsed gullies and mine shafts are also common through the pine plantation areas. The flatter area at the base of the Hill is generally open grassland with a few scattered Pine and native trees.

Although the area has a low level of development and infrastructure there are several informal mountain bike trails and vehicle tracks that are equally accessible to pedestrians, including two that have the potential to be improved to provide access all the way from the lookout down to Brooksbank Court and Whitefield Street.

Four parcels of land adjoining the eastern boundary of the Reserve are either Council freehold land or Crown Land but are not formally designated as part of Black Hill Reserve. This area has existing and proposed mountain bike trails, and with the open flatter land in the north east corner also has excellent capacity for new informal carparking to provide another level of access to the Reserve and parking at the base of the hill for events.

Recommendations

- Redevelop mountain bike trails and routes to approved designs and make sure crossing points with shared paths and walking trails are clearly delineated with appropriate signage.
- Preserve and enhance the integrity and character of the established pine plantation areas.
- Maintain and improve safe pedestrian access to the south east lookout area.
- Formalise and develop designated shared vehicle access tracks and pedestrian paths to improve access to and through the Reserve, particularly trails with the potential to link the lookout to Brooksbank Court and Whitefield Street, and the informal road reserve along the eastern boundary.
- Maintain the open character of the open grassland area close to Brooksbank Court but redevelop and landscape this area to provide informal car parking, integrated vehicle and pedestrian access, improved native habitat areas and improved passive recreational opportunities.
- Formalise the inclusion of the four parcels of Council freehold land and Crown Land into Black Hill Reserve.
- Selectively uplift trees and remove shrubs and undergrowth within a 10 metre buffer of all adjoining residential boundaries to reduce the risk of fire.
- Remove trails that do not form part of the identified trail network, and reinstate with the appropriate vegetation type for that area.

5.6 Management Recommendations

- Continue to implement recommendations of the **Black Hill Lookout Fire Management Plan** and consider additional fire management strategies such as:
 - clearing undergrowth within 10 metres of all adjoining property boundaries on an annual basis
 - clearing and maintaining all weather emergency access vehicle access tracks on an annual basis
 - designating open and cleared areas within the Reserve for safe parking and turnaround areas
- Develop a **Tree Management Plan** for pine plantation areas, avenue plantings and native planting areas generally in accordance with the recommendations of the Arboricultural report, but also in consideration of the final recommendations of the Master Plan.
- Develop a **Weed Management Plan** that considers the priorities for weed control to assist with fire management, the preservation of pine plantations, the preservation and enhancement of established native planting areas, and other recommendations of the Master Plan.
- Develop an **Asset Management Plan** to ensure that all existing areas, assets and new works, including tracks and trails, public amenities and park infrastructure, are regularly inspected and monitored to ensure they are functional, safe, clean, and fit for their intended purposes and that remedial works are undertaken as quickly as possible.
- Develop a **Mountain Bike Trail Management Plan** in consultation with bike club user groups and incorporate relevant actions into a ‘Memorandum of Understanding’ with the clubs to be reviewed and updated annually.
- Simplify and rationalise the Reserve boundaries by incorporating various land parcels under Crown land or Council Freehold land into the one Reserve, as identified within the Master Plan.
- Establish a **Black Hill Reserve Community Reference Group** consisting of Council officers, bike club representatives, community interest groups and local residents to provide advice and contribute to the ongoing implementation of the Master Plan and management of the Reserve

6.0 Master Plan Implementation

The implementation of a Master Plan for a reserve as large and with the complexity of issues as Black Hill Reserve has to be undertaken as both financial and labour resources permit reasons.

Major works are expensive and need to be funded from approved capital works programs, whilst ongoing maintenance programs need to be funded from recurrent budgets. Works can also be undertaken through other means such as government grants and volunteer labour and support from service clubs, user groups and the wider community.

The Master Plan for Black Hill Reserve is therefore seen as a long term plan where, subject to funding, can be implemented progressively of a 10-20 year period. Efforts will be undertaken to ensure that external funding is sought and that the community is encouraged and supported to be actively involved in implementing the Master Plan where practical and possible.

6.1 Master Plan Costs

The capital costs to implement the Master Plan are estimates only and are subject to detailed design. Costs for recurrent maintenance works should be established through the development of the recommended Management Plans.

| Item | Cost |
|--|--------------------|
| Lookout Area | |
| Demolition of redundant carpark, roads, and viewing platform | \$50,000 |
| Design and construct new cantilevered viewing platform | \$300,000 |
| Design and construct new carparking and bus turnaround and parking | \$200,000 |
| Public toilets | \$100,000 |
| BBQ shelter, safety fencing and park furniture | \$75,000 |
| Short loop trail from lookout including steps, short bridge sections and paths | \$80,000 |
| Landscaping, feature paving, garden beds, lawn reinstatement, tree planting | \$100,000 |
| Interpretative signage | \$20,000 |
| Lower viewing platform | \$40,000 |
| Sub Total | \$965,000 |
| Mountain Bike Trail and General Reserve Works | |
| Detailed mountain bike trail design, mapping and documentation for tender | \$50,000 |
| Mountain bike trail construction, signage, drainage and all trail infrastructure works | \$500,000 |
| Entrance Signage/Sculpture | \$20,000 |
| Fencing works and park furniture | \$60,000 |
| Signage | \$30,000 |
| Shared pathway and trail construction | \$150,000 |
| Informal parking construction | \$30,000 |
| Drainage works and wetlands | \$40,000 |
| Sub Total | \$880,000 |
| Contingency Allowance 20% | \$369,000 |
| TOTAL | \$2,214,000 |

6.2 Master Plan Priorities

The City of Ballarat has already committed to the design and development of mountain bike trails and associated infrastructure as a priority within its 2014-2016 budgets. Additional works in support of this commitment would add value to this direction and include new car park area, viewing platform, bbq area and picnic facilities, public toilets and an improved entrance experience and signage. The priorities for implementing the Master Plan however will, to a large extent, be dependent upon a range of factors including:

- A risk management analysis to analyse the public safety risk of existing features such as the viewing platform, pedestrian paths and steps, safety railing, tree health, and access tracks for fire prevention works.
- The sources of funding given that external funding from Government Grants must be spent in accordance with the Grants and Council allocated capital funding must also be spent on works in accordance with the approved budgets.
- Opportunities to implement works from recurrent budgets or if voluntary assistance is offered from the community.

Given that any of these factors could change at any given time, the priorities may need to alter and be balanced to ensure that public safety, funding opportunities and opportunities for community involvement are appropriately considered throughout the implementation of the Master Plan.

7.0 Master Plan Drawings

The Master Plan drawings are shown and attached on the following pages. The Reserve has been broken up into four major areas to provide drawings and plans with recommendations at a legible scale.

Each area and drawing corresponds with the recommendations in section 5 of this report. A summary of the major recommendations for each area is provided below.

Area 1 – Open Parklands

- Retain open parklands fronting Chisholm Street without bike trails and improve safety and passive use by selectively removing and uplifting trees.
- Improve entrance signage and the main entrance road and access.
- Install a new footpath along Chisholm Street to the lookout.
- Develop wetlands in lower areas and increase biodiversity through increased native plantings.
- Improve bike and pedestrian trail connections into the Reserve from Napier Street.

Area 2 – South-West Slopes

- Improve and redevelop existing mountain bike trails to be retained.
- Enhance native vegetation areas.
- Improve shared paths for maintenance and pedestrians linking from the Yarrowee River to the lookout.
- Where practical and safe, provide access to and interpretation of historical features.

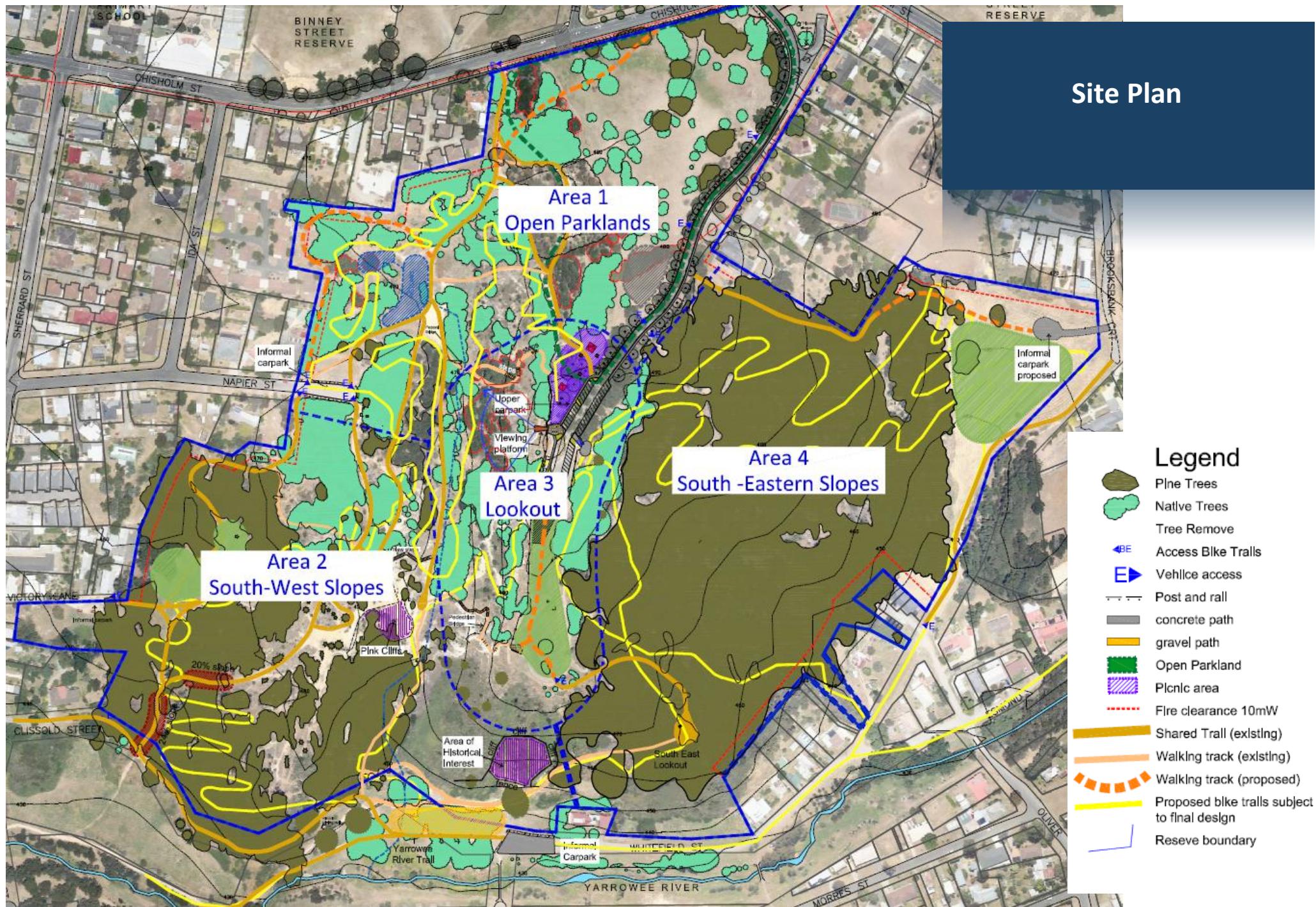
Area 3 – Lookout

- Permanently close lower section of carpark and redevelop upper carpark to provide for up to 30 vehicles and buses.
- Demolish old viewing platform and create new cantilevered viewing structure with shelter and interpretation panels.
- Provide new public toilets, bbq shelters, picnic facilities, fencing and signage.
- Redevelop the existing steps and paths to create a short walking loop.
- Remove and manage vegetation to maintain views from viewing platforms.

Area 4 – South -Eastern Slopes

- Improve and redevelop existing mountain bike trails.
- Retain the existing character of the established pine plantation areas.
- Develop new informal parking area bike trail head and public access off Brooksbank Court.
- Formally incorporate four parcels of Crown and Council land into the Reserve boundaries.

Site Plan





Legend

- Pine Trees
Native Trees
Tree Remove
Access Bike Trails
Vehicle access
Post and rail
concrete path
gravel path
Open Parkland
Picnic area
Fire clearance 10mW
Shared Trail (existing)
Walking track (existing)
Walking track (proposed)
Proposed bike trails subject to final design
Reserve boundary

KEY DESIGN PRINCIPLE - AREA 1

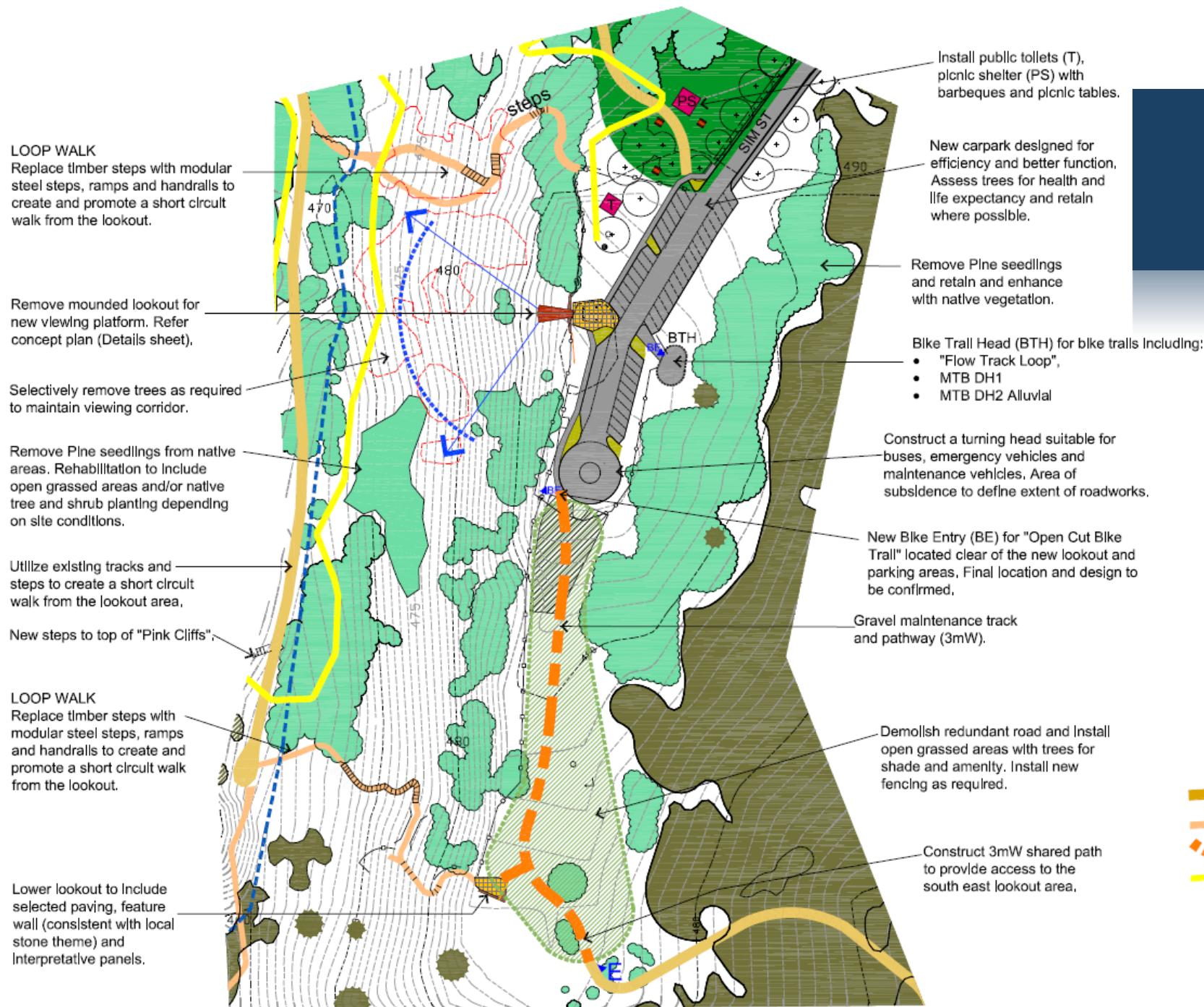
Maximise open space area by selective removal of undesirable and unhealthy trees and uplifting of low-formed canopies.

Area 1 : Open Parklands



Area 2 : South West Slopes

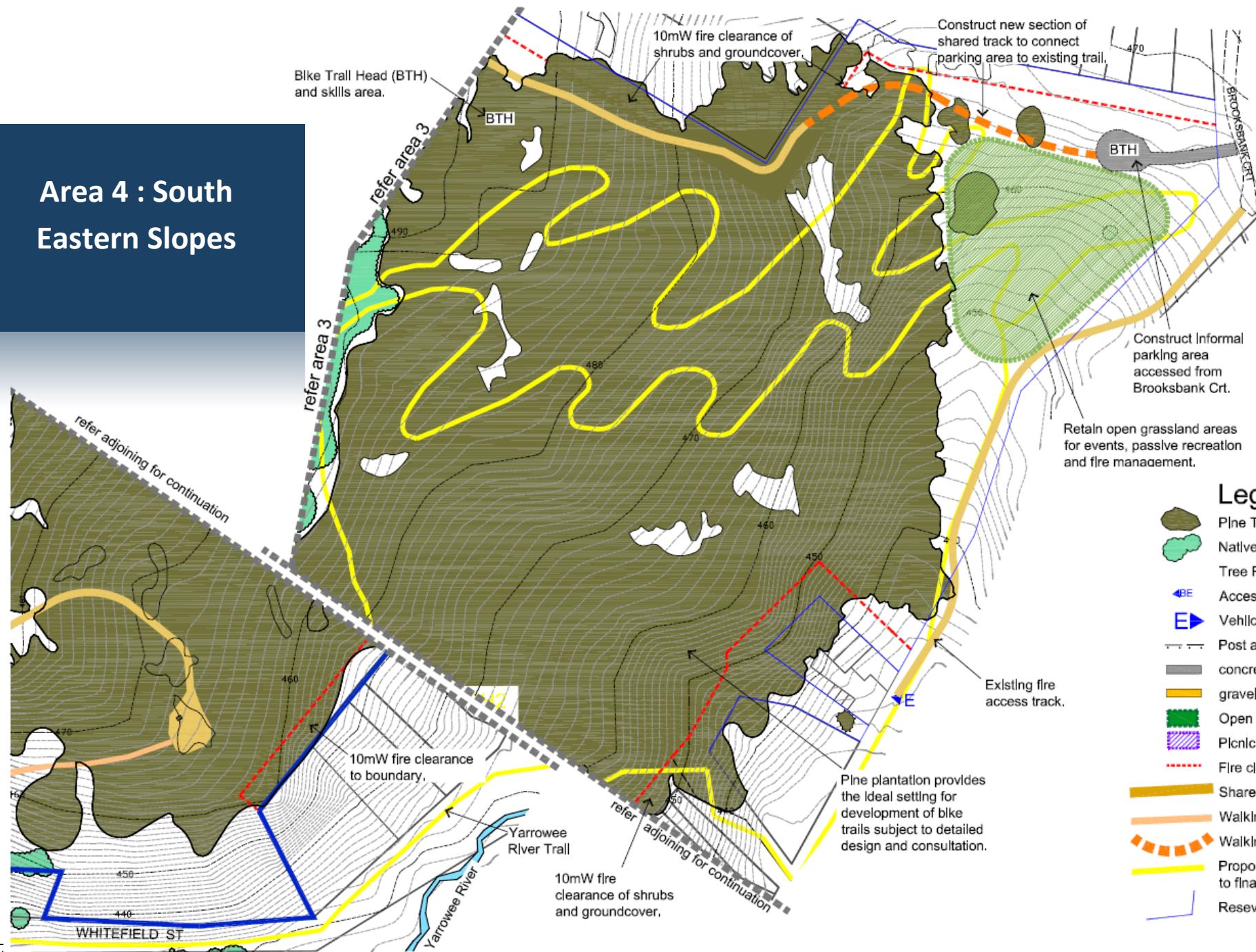
Area 3 : Lookout

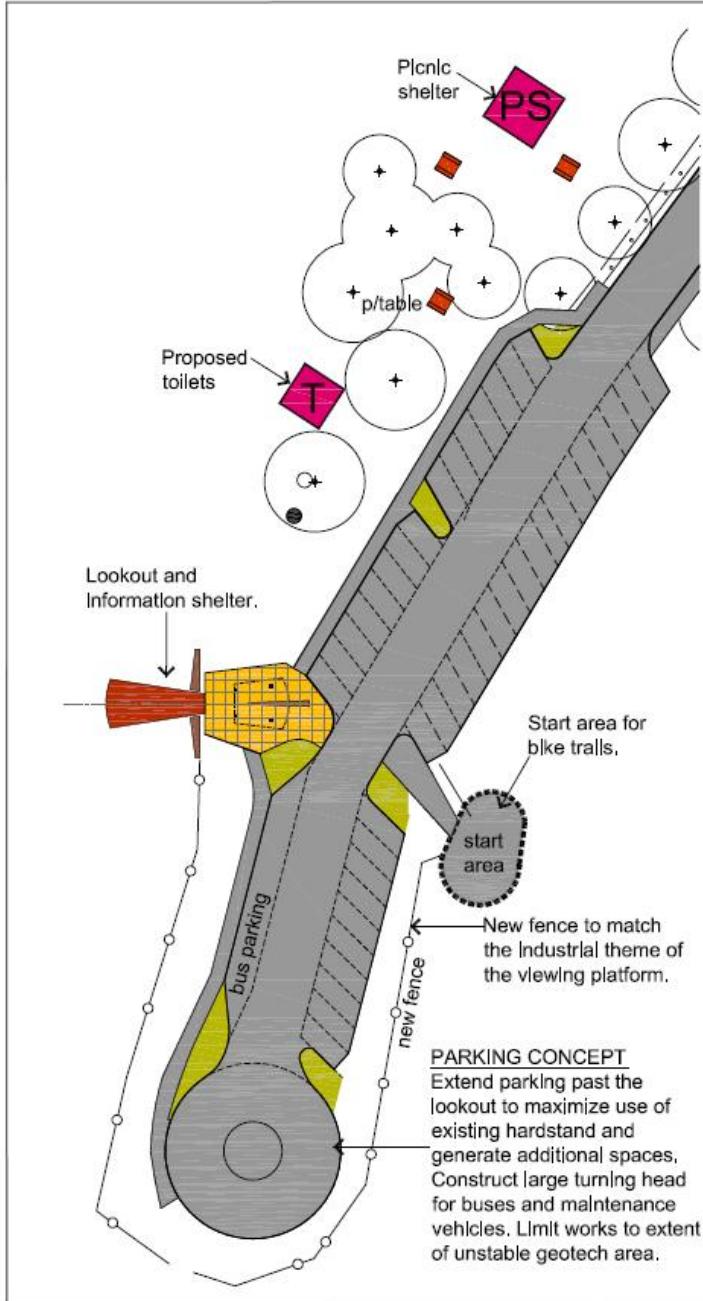
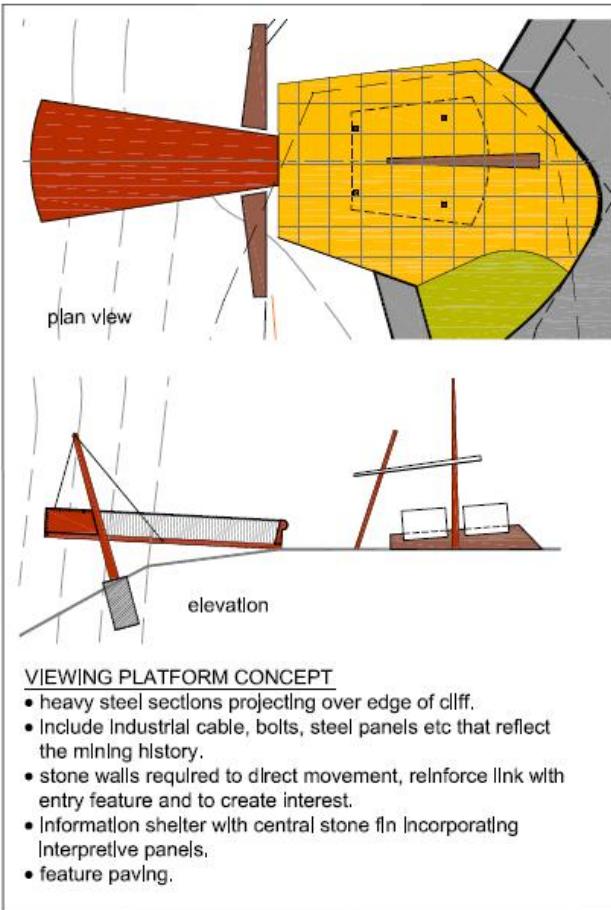
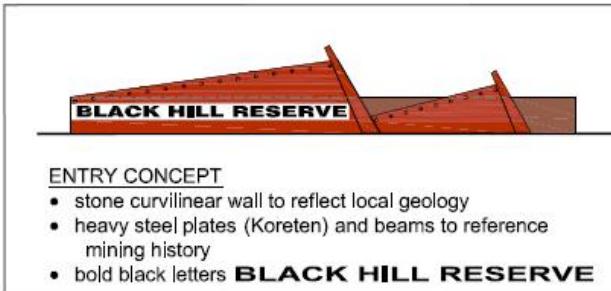


Legend

- Pine Trees
- Native Trees
- Tree Remove
- BE Access Bike Trails
- VEH Vehilce access
- Post and rail
- concrete path
- gravel path
- Open Parkland
- Picnic area
- Fire clearance 10mW
- Shared Trail (existing)
- Walking track (existing)
- Walking track (proposed)
- Proposed bike trails subject to final design
- Reseve boundary

Area 4 : South Eastern Slopes





Master Plan Concept Details