

WOLFE HEADS TRAILS PLAN



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1 A VISION FOR TRAILS IN ISAACS RIDGE

The vision statement is a synthesis of the values, ideas and aspirations generated by the community and other stakeholders who took part in the consultation process with a view to generating the Isaacs Ridge Trails Plan 2015.

The vision statement is intended to provide the ACT Government and the community with an aspirational focus, to guide the planning, development and management of trails Isaacs Ridge.

1.1 VISION STATEMENT

Isaacs Ridge will be a reserve that meets the recreational needs of local community and visitors in a fair and equitable way. The community will be able to walk, run and ride on a community managed trail network that is consolidated, safe and appropriate.

1.2 GOALS

Arising from the vision the following goals have been identified for Isaacs Ridge:

Goal 1: That the existing downhill trails on Isaacs Ridge are to be consolidated and upgraded to ensure that they are appropriate and safe. These trails will allow for this form of higher impact outdoor recreation and facilitate low key (club level) mountain bike events.

Goal 2: Provide a plan that identifies the aspiration to expand the trail network in a fair and equitable way to meet the broader recreational needs and desires of the community while managing and minimizing potential conflict between users.

Goal 3: To engage the community in the ongoing maintenance of the recreational facility.

2 INTRODUCTION

Anthony Burton & Associates were appointed to develop a trails plan for a low key pedestrian and cycling trail network within the Isaacs Ridge reserve.

The trails plan aims to creatively:

- manage Downhill Mountain Biking
- use multi-use trails to link pedestrians and cyclists through the special purpose sections of the reserve;
- maintain, and where possible enhance the existing equestrian network and user experience;
- identify and develop priorities of trail construction;
- have reference to the wishes of the community as identified in the "Consultation Report: Isaacs Ridge Mountain Bike Trail Upgrade Project 2015" prepared by Canberra Town Planning for Territory and Municipal Services
- allow for flexible and organic trail design that meets the needs of the intended users and the evolving on-ground character of the landscape;
- consider the functional links with the suburb of Isaacs, the existing trail network including the Canberra Centenary Trail and the existing community path network
- allow Territory and Municipal Services to engage a suitably qualified and experienced trail building organisation to build aspects of the trail network identified in the trails plan; and
- assist Territory and Municipal Services to provide efficient and effective ongoing maintenance of the reserve and its assets including the trail network by identifying the use of materials and designs that are durable.

This project will incorporate the following:

Functional Analysis

The functional analysis includes an analysis of the project site and how it currently functions. It looks at existing trail and path use and desire lines. The functional analysis has been used to illustrate opportunities and constraints for pedestrian, cyclist and maintenance vehicular circulation. Consideration of equestrian movement, while outside of the scope of works, has also been identified.

The trail plan will:

- 1) Incorporate a design intent report that articulates the intent of the proposed design and explains how the design meets the objectives of the client and the design requirements identified by the client;
- 2) Identify the Design Requirements for trails within the Isaacs Ridge Reserve; and
- 3) Provide information that conveys the design intent, highlights significant issues such as grading and illustrates key design elements.

3 BACKGROUND

Parks and Conservation service identified that the existing downhill mountain bike networks within Isaacs Ridge reserve were a safety concern that needed to be addressed. The ACT Government has provided capital upgrade funding in 2015-16 to upgrade the trail network within the reserve and has engaged Anthony Burton & Associates to develop this Isaacs Ridge Trail Plan. Isaacs Ridge is a small reserve that caters for local residents and a small number of visitors. Canberra Off-Road Cyclists (CORC) wish to hold a series of small-scale events utilising the downhill trails on the ridge in the future?

3.1 PROJECT OBJECTIVES AND OUTCOMES

The aim of the report is to identify proposed trail alignments that meet the needs of all stakeholders including the ACT Government, local residents and all trail users, and result in paths and trails that are functional, safe, and attractive and in keeping with the design intent for the reserve. It is based on a site analysis, community consultation and the professional expertise of AB&A.

4 FUNCTIONAL ANALYSIS

4.1 ABOUT ISAACS RIDGE

Isaacs Ridge is a nature reserve located in the south east of Canberra, close to the suburbs of Isaacs and O'Malley in the Woden Valley. The Isaacs Ridge Long Gully pine plantation is located adjacent to the Isaacs Ridge Nature Reserve. The land is managed by Parks and Conservation Service (PCS), a division of Territory and Municipal Services (TAMS), itself a Directorate of the ACT Government.

4.2 LOCATION

The site encompasses Block No. 159 Jerrabomberra and Block 6 Section 593 Isaacs and abuts Long Gully Road and the suburbs of Isaacs and O'Malley.

4.3 SITE CONTEXT

The landscape of the ridge is rocky and steeply rolling with a major ridge line dividing it. Much of the site is highly disturbed in nature with 23 Hectares of ACT Forestry commercial pine plantation. Significant works have been undertaken in parts of the reserve by Parks and Conservation Service and the local Parkcare group to remove woody weeds and re-establish vegetation endemic to the site. The majority of the trails identified within this report fall within the existing commercial pine plantation. All trails remain on the western side of the ridge line.

4.4 COMMUNITY CONSULTATION

The following are the recommendations based upon the Consultation Report Isaacs Ridge Mountain Bike Trail Upgrade Project prepared by Canberra Town Planning.[1]

- There is wide support for the ongoing use of Isaacs pines for a variety of recreational activities including informal use and organised events. The trails masterplan needs to acknowledge all of these forms of recreation and seek to avoid conflicts wherever possible.
- Specifically, the master plan needs to acknowledge walkers, runners, equestrians and people on bikes.
- From the outset, the project was described as a 'mountain bike trails upgrade'. There is sufficient support among the community to pursue the upgrade of downhill trails to a level that allows them to be sanctioned for events. There is also sufficient support for the construction of a limited amount of cross country style trail, but not a full mountain bike park. The master plan should reflect this.
- There is no clear plan for the pine forest area. It is currently being managed as a productive forest but it is of marginal value for harvest. The community enjoys the amenity it provides and a change in the forest management to focus on amenity should be formalised.
- The ongoing management of the pine trees by Forestry within PCS should be considered. If the trees are taken out of production then the apparent role of Forestry will be diminished, however management of the estate by Forestry makes a clear distinction between the areas that are available for higher intensity recreation and those being managed for conservation outcomes.
- Irrespective of the management responsibilities, a vegetation management plan and succession planning for the site should be undertaken. Some of the highest amenity pine areas will reach the end of their safe lifespan over the next 20 years. Replacement planting needs to be considered relatively soon to retain this amenity.
- Consider removing the jumps over the management trails as one of the first pieces of work. This would remove the focal point for many of the safety concerns. As an alternative, they could be fenced off only for use during races or special events. CORC has indicated that significant trail features could be constructed within the pine forest, so there is no specific need for them to be at the management trails.
- Consider pruning and thinning work in the pines prior to any trail construction works to avoid subsequent disturbance of the trails.
- The most significant risk of user conflict will occur where downhill mountain bike trails cross the management trails. To reduce the risk of conflict it is suggested that up to four crossing points are agreed and that in those locations the trails are carefully designed and constructed to ensure a slow approach speed (using tight corners or technical trail features) and generous sight lines.
- Once the crossing points are agreed, the trail maintenance group could be given relatively generous licence to construct trail within the pine forest areas, subject to sustainable trail design codes etc.
- CORC have expressed a desire to review trail alignments and the trail management report prior to finalisation. It is recommended that all stakeholders be given this review opportunity.
- Planning for equestrian uses on a broader scale should be undertaken to ensure the equestrian community's needs are met with respect to adequate trail loops. Ongoing liaison with the equestrian community will be needed to review the proposed master plan and the proposed arrangement for trail crossing points.
- The Equestrian community would like routes made available so that riders from agistment areas either to the north or south of Isaacs Ridge can undertake a loop during a ride. This might mean continuity of the equestrian trail around the private agistment property in the north east part of the reserve, and providing a loop route in the southern part of the reserve.

- None of the stakeholders identified any significant needs for infrastructure to support the hosting of events. The primary area for improvement is the need for car parking and ensuring car parking entry onto Long Gully road is safe as this is an 80km/hour zone. This access point should be reviewed by Roads ACT or a consultant engineer.
- Liaise with and provide proposed trail routes to ACT orienteering so they can plan for their event at Easter 2016.
- Numerous individuals and CORC are keen to be involved in trail construction and maintenance works. There is an opportunity to run a trail building workshop as part of these works, as an opportunity to teach people how to build safe, sustainable trails and choose suitable alignments. This may also help in minimising unauthorised trail building.

4.5 CONSTRAINTS

Works are to be undertaken within the pine plantation only with no works to be undertaken within the Nature Reserve.

In early 2016 a significant orienteering event will be undertaken within the reserve. No work within the reserve north of the downhill bowl should be undertaken prior to this event.

4.6 EXISTING FACILITIES

4.6.1 Forests

Isaacs Ridge has 23 Hectares of commercial pine plantation and significant areas of native vegetation that are identified as forming part of the Canberra Nature Park reserve system.

4.6.2 Management Roads

Isaacs Ridge has one sealed and numerous unsealed gravel roads designed to allow

- Maintenance of the site;
- Ensure appropriate fire protection;
- Maintenance vehicles to attend to the communications towers; and
- Provide for recreation in the reserve.

These existing roads currently form the backbone for the majority of the recreation use within the reserve and are used by walkers, runners, equestrians and bicycle riders.

4.6.3 Pedestrian Facilities

There are several informal desire lines within the reserve.

The Centenary Trail does run through the reserve utilising existing maintenance trails identified above. The Centenary Trail is a 145km self-guided, non-motorised loop trail for walkers and touring cyclists that showcases Canberra and takes users on a journey between urban and rural environments past iconic sites and hidden treasures. The Centenary Trail crosses into Isaacs Ridge from Long Gully Road and traverses the lower slopes of the ridge exiting into the Mount Mugga Reserve to the north. A detour, allowing pedestrians access to the ridgeline is located approximately half way along the ridge.

4.6.4 Cycling Facilities

There are several existing degraded downhill mountain bike trails within the reserve. These are mainly (but not entirely) located in the southern section of the reserve. There are also the remnants of a cross country mountain bike trail system that was heavily utilised in the early to late 90's prior to significant logging of the area. Other recreational cycling takes place on the existing management trails. As identified above the Centenary Trail does run through the reserve.

4.6.5 Equestrian Facilities

Several government horse paddocks and agistment properties bound the reserve. There are a series of marked equestrian trails leading to and within the reserve forming an incomplete loop of Isaacs Ridge. Equestrians are currently allowed to ride only on these marked trails.

5 DESIGN REQUIREMENTS

5.1 DESIGN INTENT

The intent of the Isaacs Ridge Trail Plan 2015 is to provide a framework for fair and equitable access to all users. It will identify the potential for different recreational user groups (with a particular focus on the downhill mountain bike user group) and identify facilities required to meet these needs. Based upon community consultation undertaken as part of this project [1] facilities and trails will be kept at a low key level aimed at local Canberra based visitors to the park.

The plan will identify:

- One way downhill trails – mountain bikes only;
- The existing equestrian trails are maintained ensuring that they continue to provide for safe and equitable equestrian use within Isaacs Ridge and that they continue to provide connections to the broader equestrian trail network;
- Bi-directional trails that can form a loop or series of loops that cater for walkers, runners and mountain bike riders;
- The need for facility signage – directional, information and compliance;
- Linkages with the existing trail network, in particular the Centenary Trail [2]; and
- An aspirational trail network that meets the needs of users.

Upgrading and construction of trails will be prioritised, with some aspects of this report considered aspirational.

5.2 DESIGN STANDARDS

Unless otherwise specified, all design, documentation and construction for this project must be in accordance with the:

- Trail Solutions: IMBA's Guide to Building Sweet Singlettrack, International Mountain Bicycling Association (IMBA), June 2004
- Managing Mountain Biking: IMBA's Guide to providing Great Riding, International Mountain Bicycling Association (IMBA), 2007.
- IMBA – Australia Trail Difficulty Rating System, IMBA – Australia 2012
- All construction work must comply with current and relevant Australian /New Zealand Standards which are available at www.standards.com relevant to working in a non-urban reserve area.
- The construction work must also comply with standards, guidelines, Acts and Ordinances currently in force in the ACT and relevant to working in a non-urban reserve area.
- All construction work must be undertaken in accordance with the relevant (to working in a non-urban reserve) environment protection measures outlined in: *Environment Protection Guidelines for Construction and Land Development in the ACT 2007* http://www.environment.act.gov.au/environment/protection_authority/business_and_industry/environment_protection_guidelines

5.3 KEY ISSUES

5.3.1 Managing conflict between users – walkers, mountain bikes, horses and vehicles

All trails will need to be designed with either multiple users in mind and/or to minimise potential conflict, particularly at designed interaction points, on single use trails. Trails designated as multi-use trails should be designed for pedestrians and bicycle riders traveling in multiple directions. Those multi-use trails located closer to the suburbs will have a greater focus on passive users (such as walkers) while those further up the ridge line will be designed with more active users such as runners, longer distance hikers and cyclists in mind (but are not exclusively for this more active use).

Downhill mountain bike trails will be designed as single-use, one-way trails.

- User conflict is to be managed through the use of signage (minimal), trail design and natural obstacles designed to reduce the speed differentials between users. The use of bollards, rails and the like is discouraged.
 - Most trails will be designed to be narrower trails (<1200mm). These types of trails are what was identified in the community consultation and have the added benefit of reducing the speed differential of users (particularly bicycle riders). When combined with choke points utilising the natural landscape, trees within the reserve and local rocks potential speed differentials (on multiple use tracks) will be kept to a minimum.

- Directional signage should be kept to a minimum but the should incorporate information that reminds users that (most) trails are multi-use and of the code of conduct expected emphasising respect for all other users;
- Trails that approach road crossings will, where possible, rise to meet the road to slow bicycle riders down prior to crossing management tracks (note this will not be the case with the downhill bike trails crossing the upper management track)
- Trail and maintenance track crossing points have been kept to a minimum and, in most instances, have been designed to slow faster users prior to crossing. These crossing points will need to be sign posted for all users so that they are aware of potential that they may encounter other forest users.
- Equestrians – trails have been designed to minimise the interaction between other users and equestrian users. There are several sections where the trails are shared and these should incorporate adequate sign posting of the user hierarchy. Further signage that identifies how users should approach horses should also be included at key locations and trail heads.

6 RECOMMENDATIONS

6.1 TRAILS PLAN

The community consultation indicated wide support for the ongoing use of Isaacs Ridge pines for a variety of recreational activities including walking, running, horse riding and bike riding, for informal use and organised events. There was sufficient support among the community to pursue the proposed upgrade to the downhill mountain bike trails to support club level events and for a limited number of cross country style trails, but not a full mountain bike park.

Based upon the broad consultation an aspirational plan (Appendix 8.1) is proposed that recommends a series of different trail types that could be upgraded or constructed within the reserve and low key facilities to support this use:

- Two dedicated downhill trail corridors generally following existing alignments.
- A multi-use spine - cross country style recreational trail that caters for walkers, runners and bike riders and can become a new link/section of Centenary Trail.
- Active user trails – more challenging cross country style recreational trail that caters for more advanced runners, walkers and bike riders.
- Day to day user car parking facilities at Shepherdson Place and event only car parking on the closed section of road behind Shepherdson place.
- Information signage with details on access, trails, appropriate reserve behaviour and user interaction.
- A series of informal rest areas.
- An equestrian linking trail proposed along the southern boundary.

The aspirational plan is intended to provide the Parks and Conservation Service with a plan to guide future trail work in the reserve. Priority trail work is identified under 6.2 Trail Alignments as a direct response to the need to upgrade the existing downhill trails.

6.2 TRAIL ALIGNMENTS

Detailed descriptions of the recommended trail types and priority for construction are provided.

Each trail will be described in detail using the following:

- **Identifier:** Trails will have a unique identifier.
- **Description:** Describes the nature of the trail and what users are likely to see.
- **Length:** identifies the total length of the trail.
- **Trail type:** Downhill, Multi-use, Active-user.
- **Design:** Width, slope and gradient, all access etc.
- **Issues:** Road crossings, rocks, bridges, steep side slopes etc.
- **IMBA Rating:** Rating from white (family), Green (easy), Blue (intermediate), Black Diamond (Advanced), Double Black Diamond (very advanced).
- **Construction Rating:** Difficulty of construction
- **Priority:** Priority of construction
- **Cost:** Potential cost of trail (using commercial rates)

6.2.1 Downhill trail corridors

Isaacs Ridge has a number of opportunities and constraints for a downhill trail system. While relatively steep and containing an abundance of rocks and rock features, the slope itself is relatively short. To make the most of the slope and comply with the wish for a number of downhill opportunities, the design alignments have been designed as twin a braided trail system (Appendix 8.4).

A braided system such as this allows for a number of separate lines providing opportunities for different courses and rider progression while minimising road crossings to 4 points across the entire downhill network. The downhill trails are divided into two separate corridors, an easier southern corridor (identified as orange in Appendix 8.4) and a more advanced northern corridor (identified as teal in Appendix 8.4). Note that while the southern corridor is identified as easier, there are many features within this section that could be designed to a Double Black Diamond level that could challenge the very best riders.

This Plan proposes construction of one main line within each of the downhill corridors as part of the first stage work (Plate 1). The proposed braided system could be further developed over time based on the success of the two main lines in managing safety of all recreational users, usage patterns and demand.

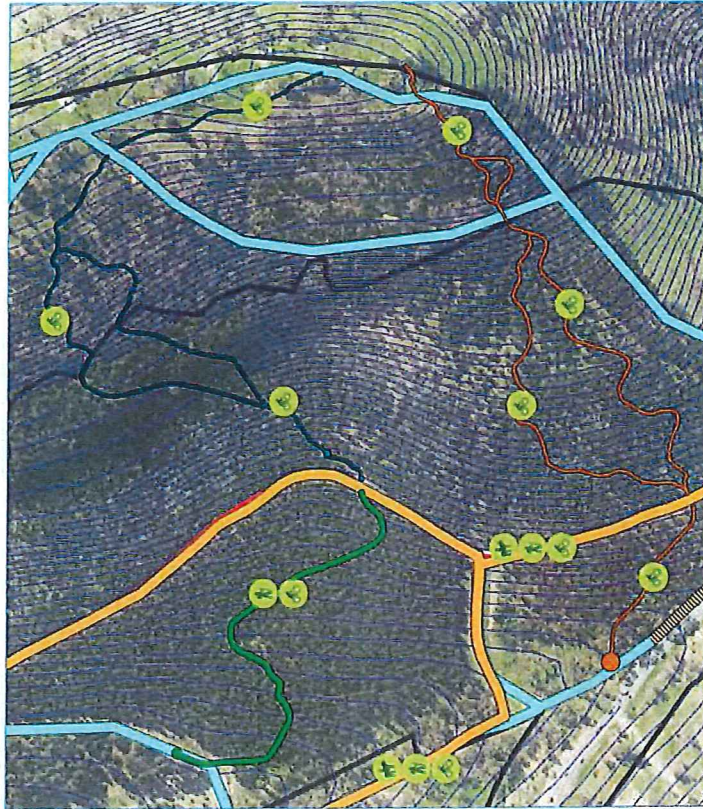


Plate 1 Downhill bowl corridors – main corridor lines

6.2.1.1.1 Southern Downhill Corridor – main line

- **Description:** The line described here is the central, 2nd most southerly line (Plate2 and Appendix 8.2, orange) of the southern bowl alignment and follows an alignment similar to an existing (little utilised) downhill trail. Starting among boulders at the highest point of the southern end of the ridge the trail begins by heading south down the slope towards long-gully road down. Crossing immediately into natural vegetation's the trail enters boulders where a series of drop-offs, jumps and rock gardens should be constructed. The trail should follow close to the fall line and weave through trees making use of a series of rock gardens to check speed and act as a filter for riders. An existing downhill alignment makes use large rock drop-off before crossing the upper management track 15m north of the existing road crossing. There are a series of potential lines through this section of forest that could provide trails from an intermediate (Blue Square) level right through to potential very advanced (Double Black Diamond) lines. The use of the rocks in this area will allow for the development of B and C lines allowing for rider progression). After crossing the management track the trail should continue to meander down hill making use of a series of rock gardens and could incorporate a series of smaller berms, off camber turns and jumps to add to the experience. The trail crosses the lower management track, using an existing rock shelf. The final 150m makes use of the slope and could incorporate a series of berms. The construction of this trail will allow for a series of other lines to be constructed to the north and south completing the braided nature of this section.
- **Length:** 730m
- **Trail type:** Downhill only, one-way.
- **Design:** 900mm to 1.2m, between 6% and 25%.
- **Issues:** This trail has many significant rock features including rollovers, drop-offs and jumps. It has two road crossings at 120m and at 600m.
- **IMBA Rating:** Blue (intermediate) if all B and C lines are included, Black Diamond (Advanced), Double Black Diamond (very advanced).
- **Construction Rating:** 3 to 5. The middle and bottom sections of this trail are relatively easy to construct. The top section offers significant challenges including significant slopes, many rocks and significant boulders
- **Priority:** This is a priority 1 trail.
- **Cost:** The major spine of this route could be constructed for between \$45 and \$75 per metre (at commercial rates). At just over 730m long (above the second management track crossing) this trail would cost ~\$40,000 and include jumps, drop-offs, some berms, significant rock gardens and rock rollovers.



Plate 2 Southern Downhill Corridor start and entry to after the upper management track

6.2.1.2 Northern Downhill Corridor

- **Description:** Starting at a similar point to the southern corridor downhill the trail parallels the existing ridgeline management track for 250m. The trail crosses the upper management track and, the aspiration here is for the trail to split into four lines. The trail describes here is the 2nd most northerly line (Plate 3 and Appendix 8.2 - Downhill bowl alignment, Teal). Following close to the fall line the trail makes use of a large rock shelf with a 1m high rock drop-off (Plate 5) there are opportunities for B and C lines allowing for rider progression). This shelf acts as a filter for riders to identify the nature of the trail they will be riding. Making the most of the slope riders traverse the hillside riding through a series of significant rock gardens. Following these rock garden riders will negotiate a large rock rollover before negotiating a series of sweeping turns through younger pine trees. The final 100m of this trail is on a gentler slope allowing riders to slow prior to crossing the management track. The final 350m are on a more gentle slope allowing riders to cruise to the along a multi-user trail to finish point on the cut-off drain at the base of the ridge. The construction of this trail will allow for a series of other lines to be constructed to the north and south completing the braided nature of this section.
- **Length:** Identifies the total length of the trail, (and length of new build and exiting if there are existing trails used) – 250, 600, 350
- **Trail type:** Downhill only, one-way.
- **Design:** 900mm to 1.2m, between 4% and 25%.
- **Issues:** This trail has many significant rock features including rollovers, drop-offs and jumps. It has two road crossings at 250m and at 850m.
- **IMBA Rating:** Blue (intermediate) if all B and C lines are included, Black Diamond (Advanced), Double Black Diamond (very advanced).
- **Construction Rating:** 3 to 5. The top and bottom sections of this trail are relatively easy to construct. The middle section offers significant challenges including significant slopes, many rocks and significant boulders
- **Priority:** This is a priority 1 trail.
- **Cost:** The major spine of this route could be constructed for between \$60 and \$75 (at commercial rates). At just over 800m (above the second management track crossing) long would cost ~\$60,000 and include jumps, drop-offs, some berms, significant rock gardens and rock rollovers.



Plate 3 Rock drop-off and rock garden Northern Corridor Downhill

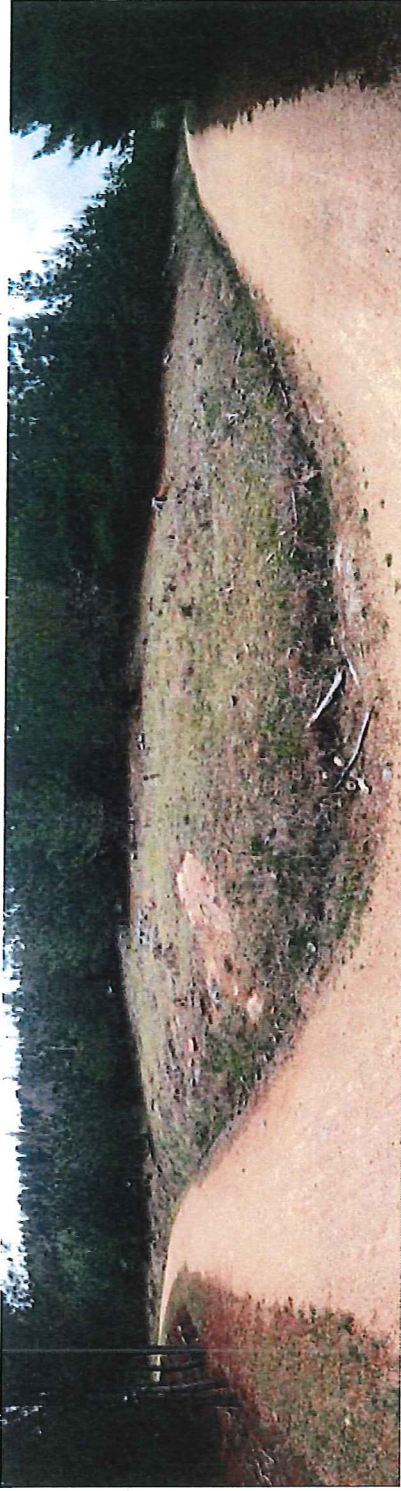


Plate 4: Road Crossing Point for the Spine and the Northern Corridor Downhill Section

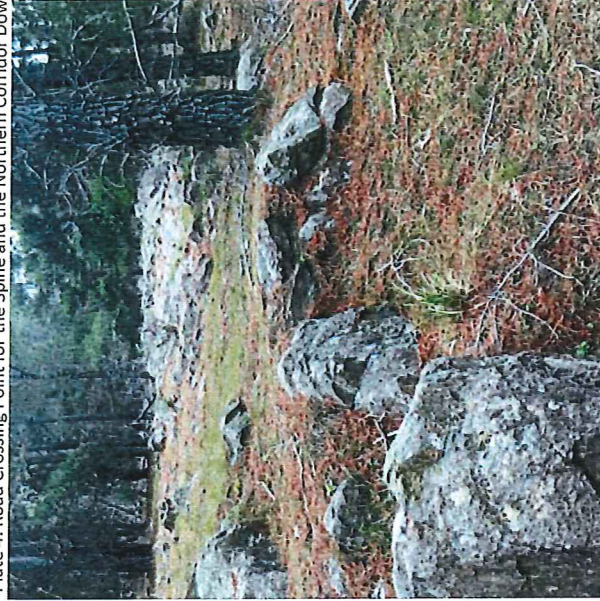


Plate 5: Examples of Rock drop-offs, rollovers and rock gardens in the Northern Corridor Downhill Section

6.2.2 Multi-use trail – The Spine loop

A multi-use spine (See Appendix 8.5) that climbs partway up the Ridge, making use of rock shelves, large trees and views to the west before it loops back towards the management trails at the bottom of the ridge (see plate 7). Designed for gentle climbing and descending, this trail is aimed at lower impact users including walkers and bicycle riders. It is not designed and should not be used as a downhill mountain bike trail.

The spine loop offers residents, walkers and cross-country bike riders an opportunity to climb the majority of the way to the top of Isaacs Ridge on a relatively gentle slope. Starting at the cut-off drain at the base of the Northern Downhill Corridor this trail makes use of the gentler slopes at the base of the ridge and follows the proposed finish to the northern downhill. Once the trail crosses the management trail it turns north and gradually climbs the ridge line until it reaches its highest point over a large open valley three quarters of the way to the top of the ridge. Here there are beautiful views north-west over the Woden Valley and the Brindabella's (see Plate 8). The trail splits here to allow users access to the north of Isaacs or to the higher slopes of the ridge where it crosses the management track and loops back to the south taking in a higher line that then drops to complete the loop near the northern downhill corridor.

This Plan proposes construction of a section of the Spine loop referred to as the *Parallel Active User Path* (see Plate 6) as a priority two for construction as part of the first stage work. The remaining segment of trail that would form the loop is ranked as a Priority 3 and could be further developed over time based on usage patterns, land management and demand.

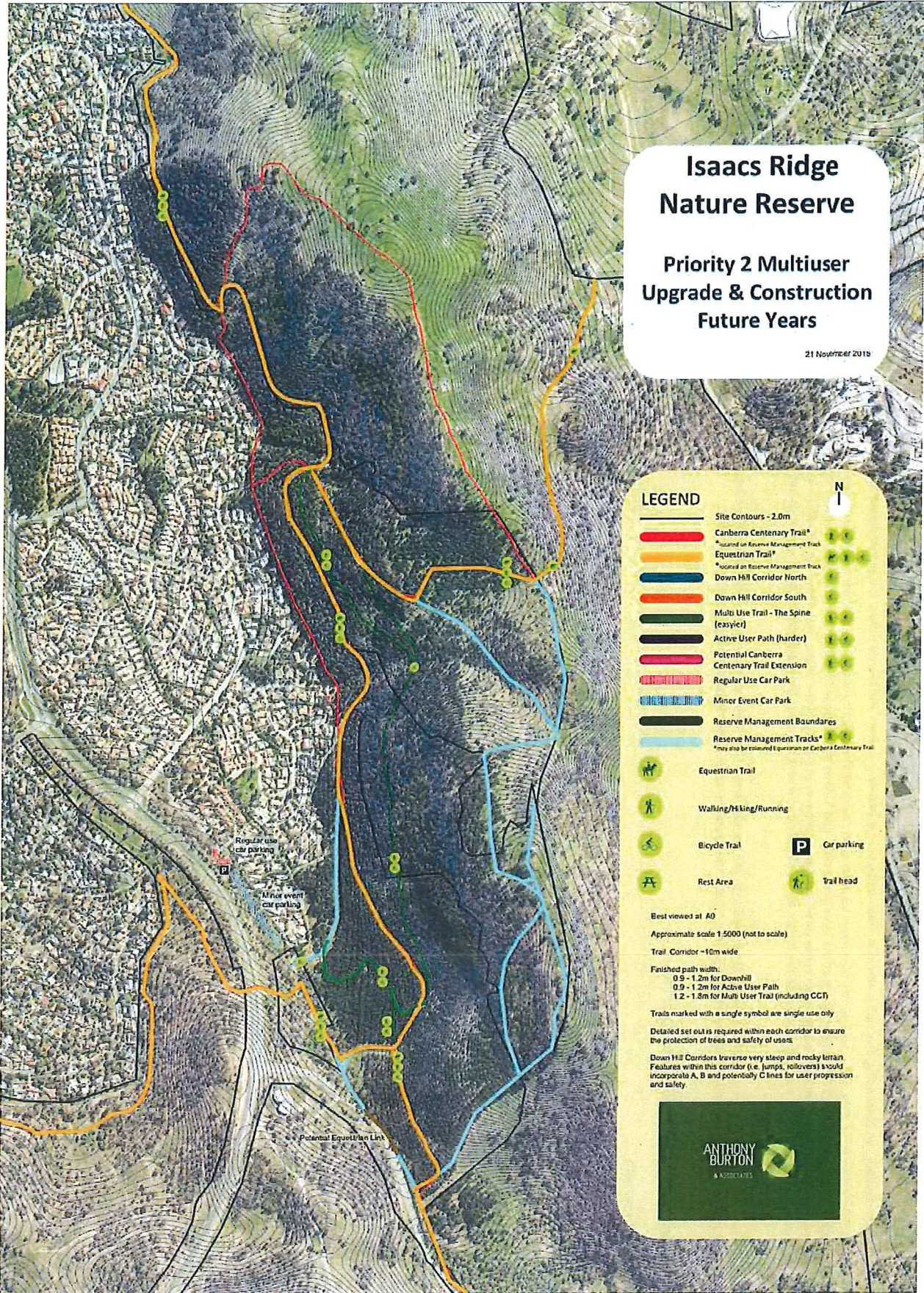
6.2.2.1 The Spine Loop – The Parallel Active User Path

The parallel active user path

- **Description:** The parallel active user path offers residents, walkers and cross-country bike riders an opportunity to parallel the maintenance road and equestrian trail. Starting at the cut-off drain at the base of the Northern Downhill Corridor this trail makes use of some of the gentler slopes at the base of the ridge and follows the finish of the northern downhill alignment. This trail will need signposting to identify to bicycle riders and walkers that it is shared and bidirectional trail, however, the open nature of this section of forest affords good sightlines that should allow all active users to use this trail. Once the trail crosses the management trail it turns north and gradually climb a short distance before paralleling the equestrian trail along the steep lower slopes of Isaacs Ridge cutting through numerous rock outcrops and over several small gullies. The trail traverses a large rock platform affording rewarding views back over the suburb of Isaacs. Here the trail splits to allow users access to the higher slopes of the ridge on the existing management trail, with a further linking section heading north west to service residents in the northern sections of Isaacs, taking users from the lower management trail to the rock platform identified above. This section of trail could be used to divert Canberra Centenary Trail users off the equestrian trail (See Plate 6).
- **Length:** 1300m. Linking trail is a further 600m.
- **Trail type:** Multi-use.
- **Design:** 1.2m to 1.8m, between 4% and 12%.
- **Issues:** This trail has many significant rock features, steep side slopes and several smaller gullies to cross. Given the nature of the trail this trail will need to be constructed by professional trail building company.
- **IMBA Rating:** Green (easy), Australian Walking Track Standard Grade 3.
- **Construction Rating:** 4 to 5. This section offers significant challenges including significant slopes, many rocks and significant boulders
- **Priority:** This is a priority 2 trail.
- **Cost:** This trail could be constructed for between \$35 and \$75 per metre (at commercial rates).

6.2.2.2 The Spine Loop – continuation

- **Description:** This refers to the section of the Spine Loop that continues from the point where the parallel active user path splits continuing the trail to the higher slopes of the ridge where it crosses the management track and then loops back through the pines to the south taking in a higher line that then drops to complete the loop near the northern downhill corridor.
- **Length:** 1300m (total length of the loop is 2600m).
- **Trail type:** Multi-use.
- **Design:** 1.2m to 1.8m, between 4% and 12%.
- **Issues:** This trail has many significant rock features, steep side slopes and several smaller gullies to cross. It crosses management trails in 3 separate locations including one equestrian route twice. Given the nature of the terrain this trail will need to be constructed by professional trail building company.
- **IMBA Rating:** Green (easy).
- **Construction Rating:** 4 to 5. This section offers significant challenges including significant slopes, many rocks and significant boulders
- **Priority:** This is a priority 3 trail.
- **Cost:** The Spine Loop could be constructed for between \$35 and \$75 per metre (at commercial rates).



Isaacs Ridge Nature Reserve

Priority 2 Multiuser Upgrade & Construction Future Years

21 November 2015

LEGEND

- Site Contours - 2.0m
- Canberra Centenary Trail*
*located on Reserve Management Track
- Equestrian Trail*
*located on Reserve Management Track
- Down Hill Corridor North
- Down Hill Corridor South
- Multi User Trail - The Spine (easier)
- Active User Path (harder)
- Potential Canberra Centenary Trail Extension
- Regular Use Car Park
- Minor Event Car Park
- Reserve Management Boundaries
- Reserve Management Tracks*
*may also be coloured Equestrian or Canberra Centenary Trail
- Equestrian Trail
- Walking/Hiking/Running
- Bicycle Trail
- Rest Area
- Car parking
- Trail head

Best viewed at A0
 Approximate scale 1:5000 (not to scale)
 Trail Corridor - 10m wide
 Finished path width:
 0.9 - 1.2m for Downhill
 0.9 - 1.2m for Active User Path
 1.2 - 1.8m for Multi User Trail (including CCT)

Trails marked with a single symbol are single use only
 Detailed set outs required within each corridor to ensure the protection of trees and safety of users
 Down Hill Corridors traverse very steep and rocky terrain. Features within this corridor (i.e. jumps, rollovers) should incorporate A, B and potentially C lines for user progression and safety.

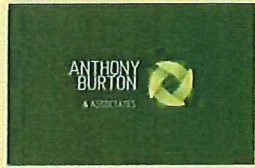


Plate 6 Parallel Active User Path



Plate 7: Typical country the both active user and the Spine would go through on Isaacs Ridge