



NSW RURAL FIRE SERVICE

Bilpin Rural Fire Brigade

NSW Independent Bushfire Inquiry

Email: inquiries@bushfireinquiry.nsw.gov.au

Most relevant Term of Reference: Preparation and Planning
Submission by Bilpin Rural Fire Brigade- 15 April 2020

We attach a submission made to the Hawkesbury District Bushfire Management Committee in November 2016, “Wollemi- Grose Wildfire Mitigation and Community Resilience Management Plan”, this plan was adopted by the Management Committee at that time. The purpose of the plan was to seek the integration of three activities into one management structure.

1. The provision of access around the developed rural lands of Bilpin, Kurrajong Heights and Mountain Lagoon
2. The implementation of supporting Hazard Reduction strategies to mitigate the movement of Wildfire across the landscape
3. The implementation of strategies to improve the community resilience of residents and to recognize the need for pre-incident planning for the variety of tourist activities which occur particularly during the summer months.

The plan identifies the provision of perimeter access trails in 2001 around the developed Rural Lands. Subsequently these trails were reopened in 2006, 2013 and more recently with the Gospers Mountain Fire in 2019. In Bilpin, Mountain Lagoon and Kurrajong Heights in excess of 100km of trails have been reconstructed each time mainly through private lands.

The 2016 submission sought to have these perimeter trails recognized as Fire Trails, and maintained as such, albeit within private lands.

The plan identifies the ultimate objectives of the linking of these trails to the existing trail network, thereby providing, with supplemental fuel mitigation measures, the ability to reduce the wildfire movement from North to South across Bells Line of Road, and the easterly movement of wildfire across Mountain Lagoon Road. This then would provide a management line from the Colo River to the Grose River. This control line was utilized in the recent Gospers Mountain Fire as part of the suppression strategies.

Whilst the 2016 submission has been supported at various levels of the Rural Fire Service and the District Committee, with the Trails adjacent to Bilpin being now on the Fire Trail register as Strategic Trails, and amendments being made to the Rural Fire Act 1997 to provide for agreements to be made with Private Landowners, little or no progress has been made in regard to funding. Whilst a Landowners agreement has been developed by the Rural Fire Service, it is seen that this document is very onerous on the Landowner and fails to recognize the goodwill which does exist between the Landowner, the Local Brigades and the Service. In its current form Brigades are reticent to discuss the agreement with Landowners.

Due to the uniqueness of proposals such as the one described, it does not fit the normal funding and trail maintenance models, with Service staff having difficulty in dealing with such proposals. The implementation has been delayed, although supported in concept, District staff are restricted to dealing only with regional staff etc.

The current position is that all the trails have been reopened as a result of the Gospers Mountain Fire, and only minimal works would be required to bring them to a completed condition.

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The community is fully supportive of the Service and its role in the recent Bushfires, and it would be opportune to engage the landowners in the formal process of gaining permission for the Service to maintain the Trails. As noted these trails have been opened 4 times in the past 18 years and the landowners have supported these works.

Given the strategies to suppress in part the Gospers Mountain fire, it is possible to extend the Bells Range Northern Strategic Line to Colo Heights via Mountain Lagoon Road, Comleroy Road, Upper Colo Road and the Putty Road. The Link then exists to the Macdonald River via Wheelbarrow Ridge Road, Transgrid Trails, Bi-Centennial Road and Webbs Creek Mountain Road to the Macdonald River upstream of Wisemans Ferry.

The objective of this link with accompanying supportive Hazard Reduction activities would be to mitigate the movement of Wildfire easterly of the Hawkesbury River from Wisemans Ferry to Castlereagh, forming an arc along the foothills of about 50 kms in the protection of the more developed lands to the east of the Hawkesbury River.

The provision of access is only part of the equation to mitigate the movement of Wildfire, the ultimate activity is the provision of timely hazard reduction to reduce the available forest fuels. We note that in 2011 the Bilpin Brigade submitted the Porcupine Creek Hazard Reduction proposal to the Hawkesbury District Bushfire Management Committee. This burn is located in Blue Mountains National park to the South of Bilpin Village and to the north of the Grose River some 1500 Ha in size. Trail works were carried out some 2 years ago, however due to climatic conditions and NPWS staff availability the Burn has not been carried out. The recent Gospers Mountain Fire moved through that proposed burn area, which is dominated by deep canyons and creeks. It is considered if the Burn had been carried out that very likely between the proposed fuel reduction and the topographic constraints that the fire would have stopped in that location instead of travelling a further 10 kms easterly.

It is noted that to the south of the Grose River within Blue Mountains National Park that recent Hazard Reduction activities were completed on Lawson Ridge and Linden Ridge, which were significant in the protection of the communities in the mid and lower Blue Mountains from the Grose Valley fire which originated from the Gospers Mountain Fire.

We thank the Independent Panel for the ability to bring these matters of concern to your attention.

Sean Lonergan
Captain
Bilpin Rural Fire Brigade

Mountain Lagoon RFB-Bilpin RFB-Kurrajong Heights RFB- Mt. Tomah RFB



**WOLLOMI-GROSE WILDFIRE MITIGATION AND COMMUNITY RESILIENCE
MANAGEMENT PLAN**

**INCORPORATING THE VILLAGES OF
MOUNTAIN LAGOON-BILPIN-KURRAJONG HEIGHTS-MT. TOMAH**

PREPARED NOVEMBER 2016

Wollemi-Grose Wildfire Mitigation and Community Resilience Management Plan

Incorporating the Villages of

Mountain Lagoon, Bilpin, Kurrajong Heights and Mount Tomah

Background

- Previous Fire History shows the regular impact of Wildfire upon the Bells Range.
- Historically residents have sought protection within their developed lands.
- Suppression operations have generally involved large indirect attack methods by backburning from the occupied lands either to the south or to the north of the Bells Range.
- Since 2001 perimeter access trails have been developed during suppression operations to provide better access for firefighters along the perimeter of these occupied lands.
- These trails have subsequently regenerated by natural means.
- In subsequent fire events the trails have then been re-opened.
- The most recent event being the State Mine Fire of 2013.
- Access Trails were re-opened in Mt Tomah, Bilpin and Mountain Lagoon.

Current Position

- Whilst Brigades have previously agreed that maintenance of the access constructed during wildfires was desirable, no integrated plan has been developed.
 - Without prompt action the natural regeneration of the trails will soon close them so that they would require costly re-opening for the next wildfire, leaving the communities at risk.
 - Mountain Lagoon have trails which generally protect the more central area of Mountain Lagoon, however do rely upon works by the NPWS for the maintenance of these trails.
 - Bilpin have previously mapped the trails and have now resolved to develop a concept plan to engage with the Community and seek funding so that the trails become available at all times.
 - Bilpin have developed proposed sectors for Management and incident purposes and prepared a provisional initial staged implementation plan, with budget costings. The length of mapped trails in the Bilpin area is approximately 71 Km.
 - Preliminary discussions have been held with the landowners for the initial two sectors.
 - Kurrajong Heights through a developed hazard reduction program have maintained a general access availability around the properties.
 - Mt Tomah Brigade have mapped, named and gated where required the works constructed in 2013. The Brigade and Community have maintained these existing trails with stabilisation (seeding) and owners continue with slashing to keep the trails open, showing strong community support.
 - The NPWS have a maintenance program which includes the Patterson Range Trail and Donna's Track
-

The proposal

It is proposed that an integrated Strategic Plan be developed linking the Brigade areas with the following Objectives:

- 1. To Protect the respective communities from uncontrolled wildfire and to increase the resilience of the communities**
- 2. To protect the Grose Valley Catchment of the Blue Mountains National Park and the adjoining townships to the east (Bowen Mountain and Kurrajong Heights) and south of Bilpin (eg. Faulconbridge, Springwood) from Wildfire emanating from the Wollemi National Park, by containing the movement of fire to the north of Bells Range between Mt Tomah and Kurrajong Heights.**
- 3. To mitigate and inhibit the movement of Wildfire within Wollemi National Park easterly into the Wheeny Creek catchment between Bilpin and Mountain Lagoon, thereby reducing the impact of wildfire upon the communities of Blaxland Ridge and East Kurrajong**
 - The attached Wildfire History map indicates the potential to develop strategic lines for the suppression and control of wildfire emanating from the west of Mt Tomah
 - The Wollemi Strategic Line Linking Mt Tomah, Bilpin and Kurrajong Heights, and Bilpin to Mountain Lagoon and subsequently to the Colo River has proved to be capable of being implemented, most recently in the State Mine Fire
 - The Grose Strategic Line linking Mt Tomah, Bilpin and Kurrajong Heights to the Grose River has been utilized in whole and in part in past years

To achieve such an outcome detailed strategies will be required, in addition, Community Consultation to identify areas where more resilient communities can be developed will be necessary. In brief, the likely strategies to be developed would include:-

- 1. Confirmation of existing access trail Location and adjusted locations where necessary (discussion with owner/NPWS)**
 - 2. Identification of tenure and ownership-landowner discussion (Council/Private Owner/NPWS).**
 - 3. Identification of Wildfire Sector Planning and integration with BFMC Risk Management Strategies, including adjoining Fuel management initiatives**
 - 4. Hazard Reduction Planning-Development of comprehensive 10yr plan and priorities**
 - 5. Identify and submit suggested trail names for incorporation into Fire Trail register**
 - 6. Community Resilience Consultation**
 - **Identify Places of special needs (School, Bilpin Hall , Communication facilities etc.)**
 - **Identify Places of accommodation and visitation**
 - **Community Liaison - Assist the Community to achieve the :-**
 - **Development of Pre-incident Plans for Structural/Community Assets**
 - **Preparation of Bush Fire Emergency and Evacuation Plans for appropriate Tourist Developments, or places of similar activities.**
 - **Encourage all households to have a Bushfire Survival Plan.**
-

Prepare staging plan for the development of the detailed Management Plan and Funding proposals.

It is significant that this plan is seen as an initiative from the Rural Fire Brigades on behalf of their Communities, and that the relationship between the Brigades and their respective Communities is paramount.

The proposed access trails are primarily located within private lands, with the management benefit being realized in most cases by public lands. Within the Bilpin area some 134 Private Properties are directly affected by the current access trails, which protect over 400 properties. Several properties owned or managed by Council, Crown Land or Land Council are also affected. Some minor intrusions occur within land controlled by the NPWS, with some 3.5 km of access trail adjoining NPWS lands.

It is interesting to note the recent amendments to the Rural Fires Act 1997, wherein the RFS Commissioner may only create a Trail/access on private lands with the concurrence of the Owner, it is seen that in this regard the Rural Fire Brigades have a vital role in protecting their existing relationship with landowners to achieve their ongoing consent for the creation of these trails in a formal capacity.

The current status of each Brigade and their support for the proposal has been discussed at a recent meeting of Brigade Captains and representatives. The "Bells Range Structure Co-ordination Plan " was agreed to by the respective Brigades, and agreement was also reached as to each Brigade having a representative on the Project Team.

All four Brigades were supportive of the progress by the Bilpin Brigade to date. They supported Bilpin members of the Strategic Planning Project Team making a representation on behalf of all the Brigades at the upcoming BFMC meeting.

Costings:

Initial estimates and indicative quotes have been sought from an RFS approved contractor for the development of trails in the vicinity of Bilpin to the standard required. The Bilpin area would require a total of 71 Km of trails with gates and a number of creek crossings. Quotes received indicate this work should be achievable for approximately \$3,000 per km in aggregate if undertaken prior to further regeneration on the trails as they currently exist.

The Proposal:

To seek, with the support of the four Brigades that form the Project team:

1. In principle endorsement of the Wildfire Mitigation and Community Resilience Management Plan by the Hawkesbury BFMC, and
2. To immediately seek funding for Stages 1, 2 and 3 of the Bilpin Staging Plan (costing \$65,000) as a means of ground truthing the project.

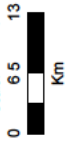
Annexures:

- Wildfire History and Proposed Strategic Lines Map
 - Bilpin Wildfire and Community Resilience Plan
 - Mt Tomah Wildfire and Community Resilience Plan
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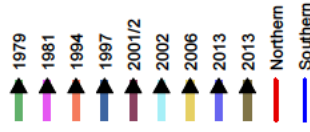
HAWKESBURY DISTRICT
Wollemi-Grose
Strategic Lines
Historic Fire Paths
Regional Map

Scale: 1:247,317



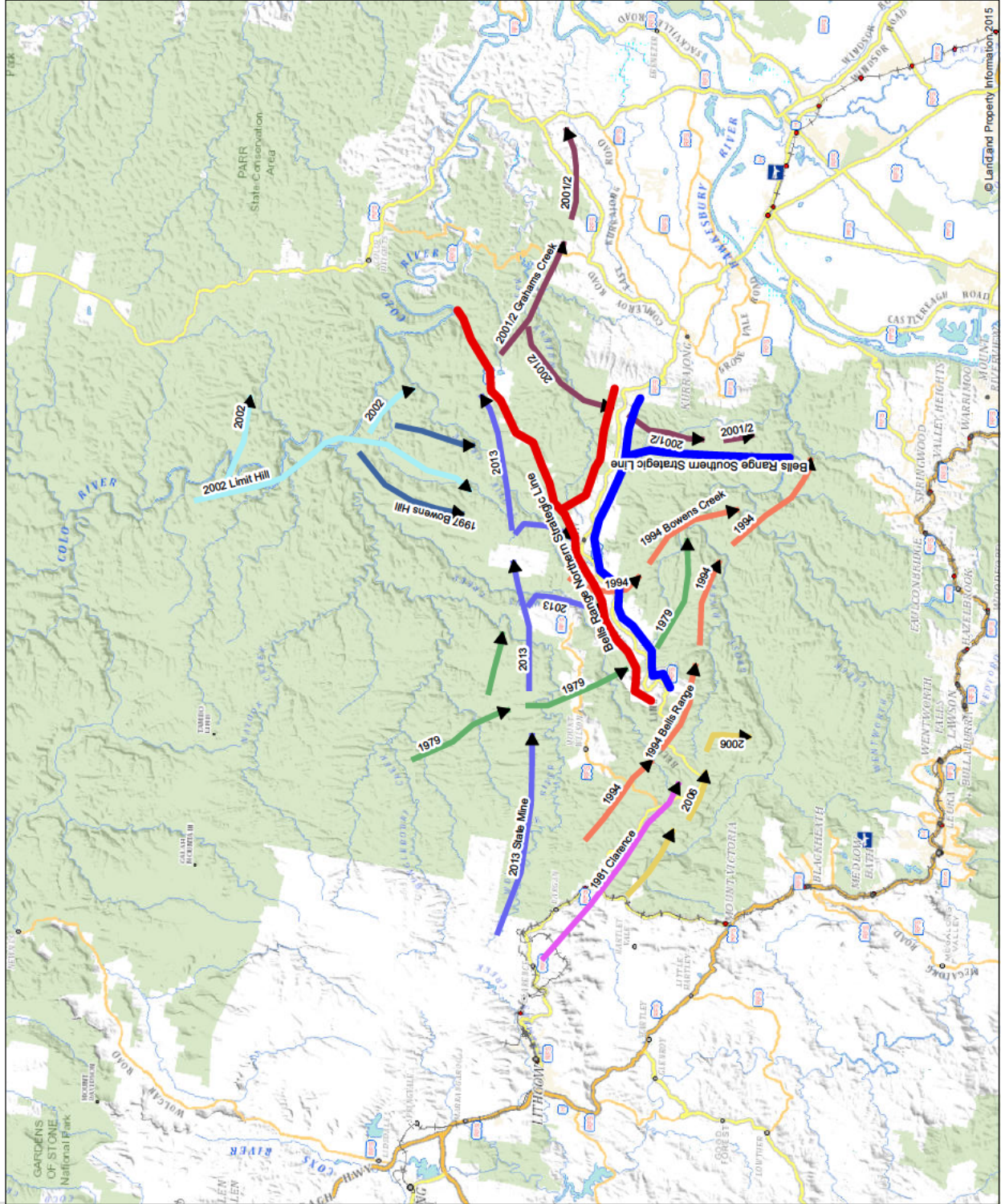
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Wollemi & Grose Fire
Direction NOTES



Map Details:

Base Data ©LPI, SPOT, AAM, SKM, OEH, Smeish, K&A
 Map Projection GDA 1984 NSW Lambert
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Bilpin

Wildfire Mitigation and Community Resilience Plan

Prepared By : Bilpin Rural Fire Brigade

Date: August 2016

Bilpin

Wildfire Mitigation and Community Resilience Plan

As Part of the Wollemi and Grose Wildfire Mitigation and Community Resilience

Management Plan

Background:

This plan refers in particular to the Bilpin district and to the respective plans for the adjoining villages of Mountain Lagoon, Kurrajong Heights and Mount Tomah. Bilpin is located along the eastern section of the Bells Range and consists of many orchards renowned for the growing of various fruit. In recent years significant tourist development has occurred with the establishment of tourist accommodation and including wedding venues and the like. These tourist visitations have increased significantly during the summer fruit season with the opportunity for visitors to pick their own fruit. Residents have also moved to Bilpin as a lifestyle choice.

Whilst the developed area is along the Range, the district is adjoined by Wollemi National Park to the North and the Blue Mountains National Park to the south. These National Parks being identified for either Heritage and/or Wilderness significance.

It is during this period of high tourism visitation that wildfire has threatened Bilpin and the adjoining villages on a regular basis, with the historical movement of fire being from the west-North west and moving generally easterly –south easterly, and during the summer months generally from November to January. It is noted that more recently the State Mine Fire occurred in late October.

During recent fire events, 2001-2002, 2006 and 2013 suppression strategies have involved the establishment of perimeter trails on the northern and southern perimeters of the developed lands. In all during this period some 70 kms of trails have been developed from this access construction, and being located generally on private lands.

Proposed Community Wildfire Management Plan

Since the re-establishment of this perimeter access as a consequence of the “State Mine Fire” in 2013 the Bilpin Rural Fire Brigade now proposes to seek the long term retention of this perimeter access construction and to integrate this access with a vegetation management strategy within private and National Park lands such that the ensuing Hazard reduction activities may be carried out in a cost effective and integrated manner. In addition the retention of this perimeter access will allow the immediate implementation of suppression operations, which historically have been by backburning from the edge of the developed lands.

It is further intended that the participation of the Community is essential such that the visitation by tourists during the Bushfire danger period is carried out with an increased understanding within the Community of the risks and actions required to manage both the community interests and those visiting Bilpin, so that their safety is of the utmost consideration during any Wildfire activity.

Objects of the Plan

This plan is a sub-plan of the overall Wollemi Grose Valley Wildfire Mitigation Strategy, and links to the plans prepared for the individual Villages of Mountain Lagoon, Kurrajong Heights and Mt Tomah. The aims of that plan are consistent with strategies outlined within this sub-plan.

An initial staging plan has been developed to allow early implementation of the plan.

It is suggested that application could be made for this initial seed funding to allow commencement of the plan. Details for this funding are as set-out on the initial staging plan

Draft Implementation and Co-ordination Strategy

Co-ordinator- Ross McKinlay

Co-ordination Team- Ross McKinlay, Sean Lonergan, Michael Patterson,
Brian McKinlay (Mentor/Consultant)

Note:- Whilst initial Team members are now detailed, it is anticipated that all Brigade members and Deputy Captains will be involved with the development of the Project.

Tasks/Activities/Leader/Members

1. **Mapping and Documentation** - Sean L. Brian Mck.
2. **Trail Location and identification**
 - **Trail Relocation identification-** Jim Newton, Ross Mck.
 - **Trail Tenure-** Ross Mck. Mick P. Brian Mck.
 - **Trail Naming-Sector Planning-** Sean L, Brian Mck.and Deputy Captains(see item 4)
3. **Hazard Reduction Planning-** Stuart McKinlay, Sean L. Brian Mck. In conjunction with BFMC Delegates and Agencies.
4. **Trail Names-** Sean L.
5. **Community Resilience Consultation/Co-ordination-** Steve McMillan, Ross Mck, and Brigade Community Liaison Officer.
6. **Update of Bilpin RFB Community Database-** Bill Shields, Sean Lonergan

Task Objectives and Resources

1. **Mapping and Documentation** - Sean L. Brian Mck.
Fire History Annexure- Sean L, Brian Mck, Bill Shields, Bill Rodger
Objective:- To provide as required ,necessary Mapping of the Project to demonstrate the intent and scope of the works. To provide the necessary Documentation to support the Project initiatives and to achieve the acceptance of the Project by the Hawkesbury District Bushfire Management Committee and to support any Funding submission.
Resources:- Current RFS Mapping and access to computer and printing facilities at Fire Control. Previous Fire History and Resident database prepared by Bilpin RFB.
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2. Trail Location and identification

- **Trail Relocation identification-** Jim Newton, Ross McK.

Objective:- To Review the current location of the as constructed perimeter access works and to identify any relocation necessary, so as to –

- (a) Reduce maintenance by minimizing soil loss due to erosion or drainage control
- (b) Improve access for Fire Fighting purposes or to reduce impact upon Private lands
- (c) As a requirement of the Landowner

Resources: Current Mapping of Access Trails and Land Tenure Mapping

- **Trail Tenure-** Ross McK. Mick P. Brian McK

Objective: To achieve the consent of Landowners for the existing works to remain within Private Lands and to negotiate possible access control arrangements between adjoining Properties.

Resources: Current Mapping of Access Trails and Land Tenure Mapping

- **Trail Naming-Sector Planning-** Sean L, Brian McK. Deputy Captains (see item 4)

Objective:- To Identify appropriate sector boundaries for operational purposes in the mitigation and suppression of Wildfire and to make recommendations to the Brigade, District and HBFMC as to the naming of the respective Trails.

Resources:- Trail Location Mapping, Previous Fire History and Proposed Hazard Reduction Blocks.

3. Hazard Reduction Planning- Stuart McKinlay, Sean L. Brian McK.

Objective:- To Provide a plan for the next ten years Hazard Reduction activities within the Brigade area. This Plan will assist in the programming of any Trail work in identifying priorities to assist in the implementation of the Hazard Reduction strategies.

Resources:- RFS Fire History Mapping, Vegetation Threshold mapping, Previous HR Burn Pattern.

4. Trail Names- Sean L (See 2 Above)

5. Community Resilience Consultation/Co-ordination-Steve McMillan, Ross McK, and Brigade Community Liaison Officer.

Objectives:- To encourage residents and businesses to be prepared in the event of Bushfire by having a pre-prepared Bushfire Plan appropriate to their situation. Particular consideration is required for those establishments that have tourist visitation, overnight accommodation and any pre planning prepared by the Bilpin Public School should be noted by the Brigade. In addition Pre-incident plans should be prepared in conjunction with the Brigade and proprietors of enterprises that contain hazardous fuels or the like, such as the service station.

It is also necessary that the wider Bilpin Community be informed of the Brigades initiatives in the preparation of this overall plan, particularly in the first instance, and a Public information strategy will be developed in conjunction with the more specific Bushfire protection issues.

Resources:- RFS Publications - “Development Planning – A Guide to developing Bush Fire Emergency management and Evacuation Plan”, “Bush fire emergency and evacuation Plan Template document” and the “Bushfire Survival Plan”. In addition the Operational Document “Pre –Incident Plan” Template.

Facebook: NSW RFS Hawkesbury District @Hawkesbury District.

Timeline for the Project Completion

It is considered reasonable to submit the concept planning documents to the Hawkesbury BFMC at the November Meeting for in principle support.

Annexures:

1. Bilpin Rural Fire Brigade – Residents Letter
 2. Bilpin Sector Map
 3. Bilpin Sector Summary Detailed Maps
 4. Sample Draft Staging Plan.
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Bilpin Rural Fire Brigade

Wildfire Mitigation and Community Resilience Plan

Over the years Bilpin and the adjoining lands have been the subject to the impact of Wildfire, during this time suppression and mitigation strategies have evolved, in addition there has been change in the way the community occupies and utilizes the land. There is now a great variety of different activities carried out, generally centred around tourism and related activities and integrated into the traditional Orchards.

Whereas in the 1979 Wildfire, Orchardist's with spray carts were an effective supplement to the efforts of the Bush Fire Brigades, who by the standards of today had very limited resources. Then vehicles traversed the edges of the properties in an effort to contain the Fire, now a perimeter access which was constructed in 2001, reconstructed in 2006 and again in 2013 can provide an effective access and environment for the RFS to operate within. This access is well in excess of 50 km being along the southern and northern perimeter of the occupied and developed lands of Bilpin.

It is with this background that the Bilpin Brigade is seeking the support of the Bilpin Community to assist in the development of a Concept Plan which would seek to retain and enhance where necessary the existing perimeter access construction. In addition a long term vegetation management strategy by the implementation of Hazard Reduction programs in the management of Forest ground fuels.

It is further intended that the participation of the Community is essential, such that the visitation by tourists during the Bushfire danger period, is carried out with an increased understanding within the Community, of the risks and actions required to manage both the community interests and those visiting Bilpin. So that the safety of visitors and residents, is of the utmost consideration during any Wildfire activity.

The Brigade is therefore seeking to discuss with the Community the ability to retain the current perimeter access and the ability to manage this construction into the future, and will be reviewing this in conjunction with affected Landowners, so that the access can be used during mitigation and suppression activities, and the Landowners' privacy protected.

Within the broader community the Brigade would seek to discuss tourist visitation and function accommodation, so that management plans are developed by the proprietors with the support of the Brigade to further protect their patrons and subsequently increase the resilience of the Bilpin Community.

For Enquiries

Sean Lonergan

Steve McMillan

Ross McKinlay

Captain

Project Community Liason

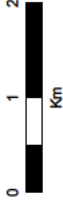
Project Co-ordinator

Co-ordinator



Wollmi-Grose Strategic Lines Bilpin Area Sector Boundaries

Scale: 1 : 49,232



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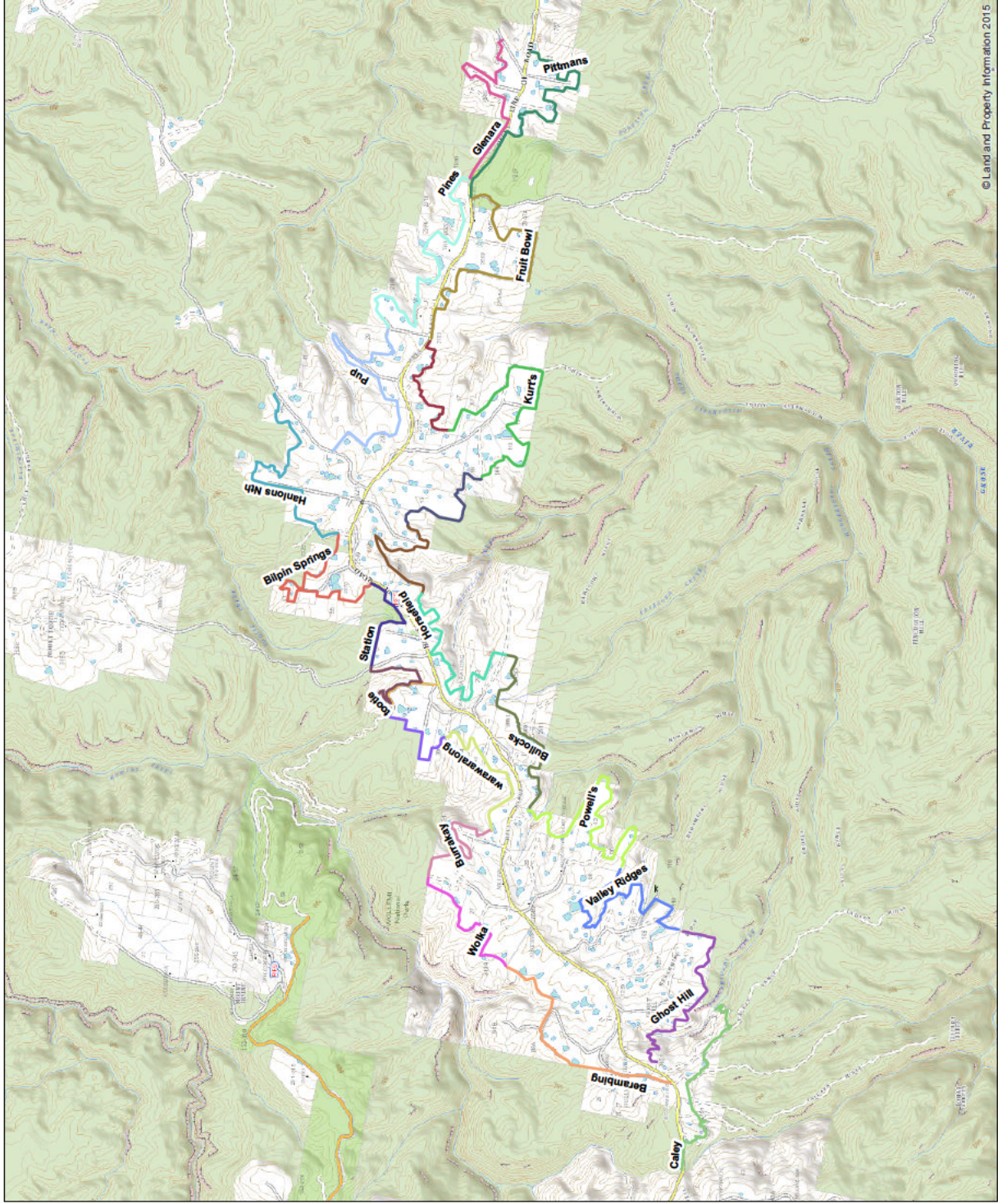
Bilpin trails by sector_polyline

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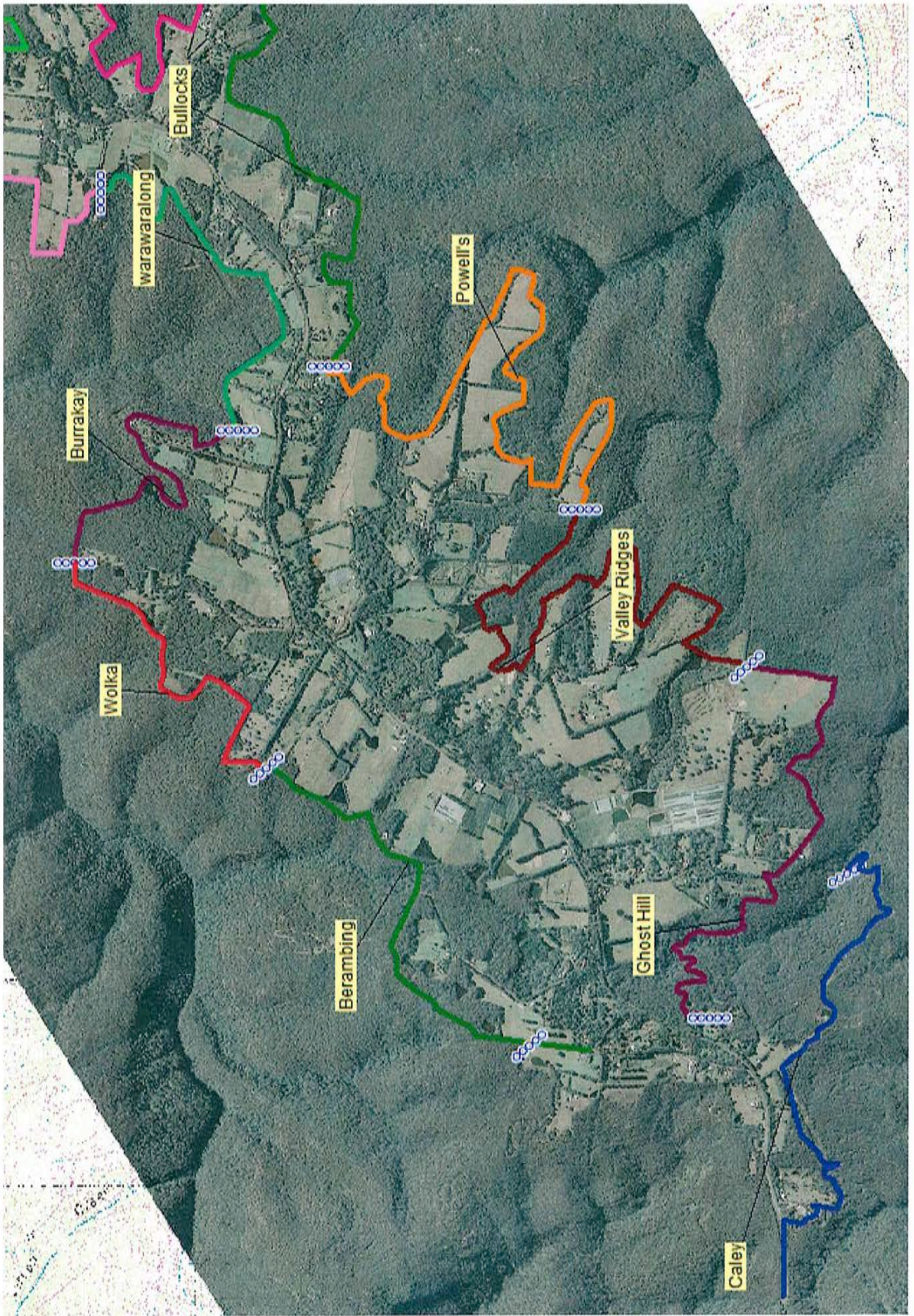
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- Bowens creek
- Bullocks
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- Caley
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- Glenara
- Hanlons Nth
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- Horsefield
- Kurt's
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- Porcupine
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- Station
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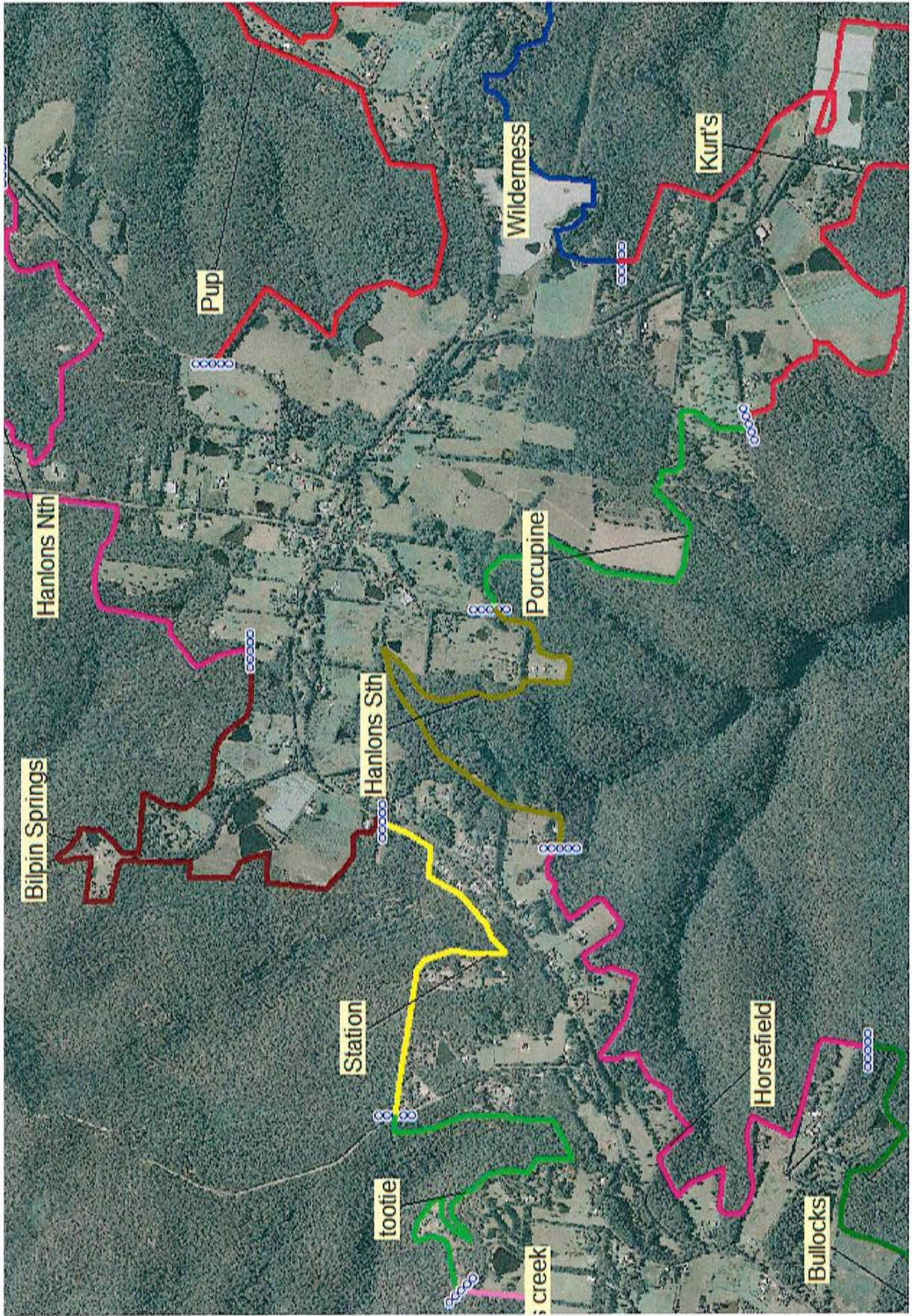


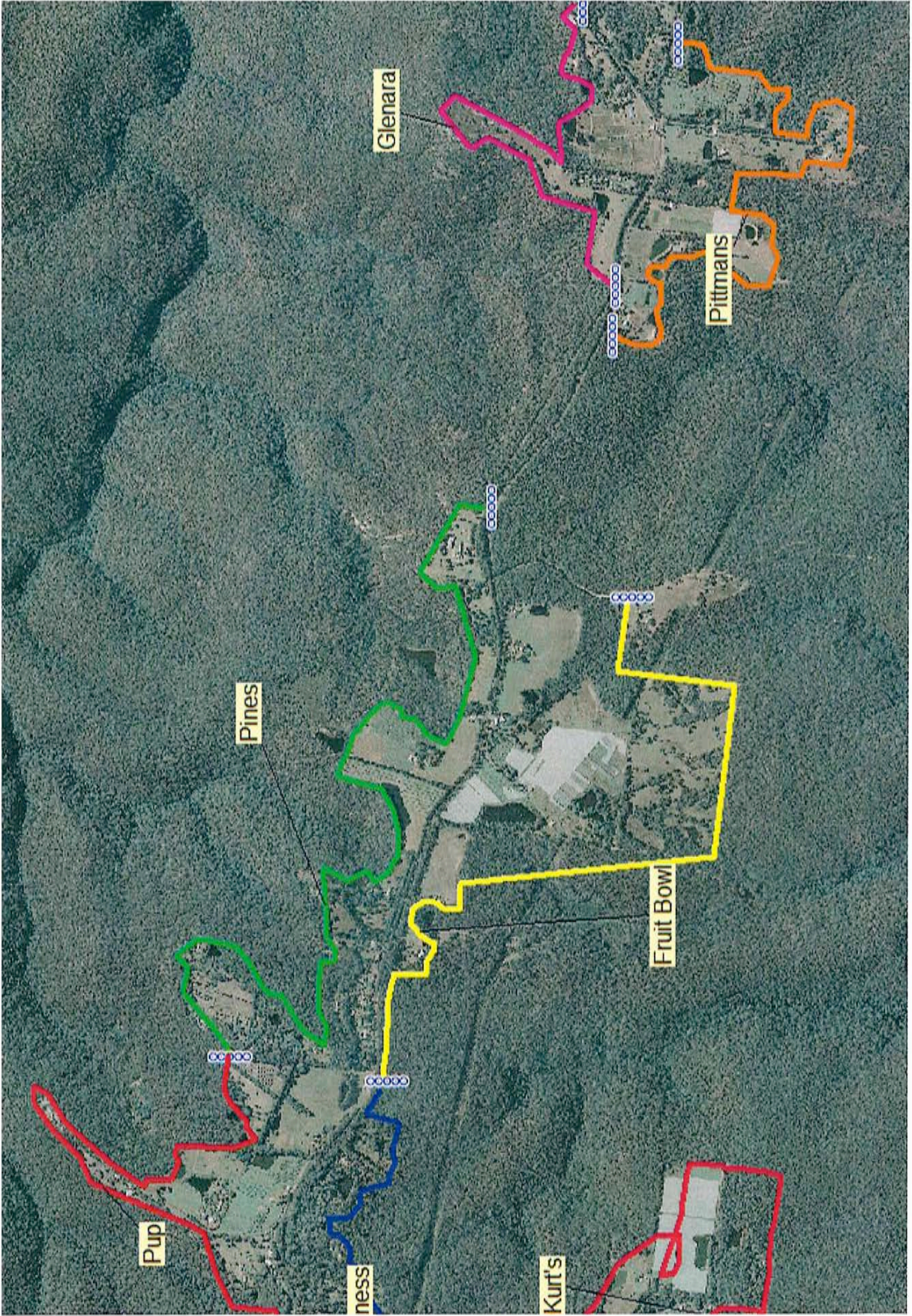
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Sample of Bilpin Area Staging Plan

Bilpin Northern and Southern Strategic Lines – Staging Plan

Stage No	Stage Length	Sectors	Works	Budget Cost	Comments
1	8.57km	Pitmans, Fruit Bowl, Wilderness	Vegetation slashing, Formation widening, Stone Crossings and Gates	\$25,000	Stage is simple to implement, with Property Owners and minimal works
2	4.66 Km	Berambing, Wolka	Vegetation Slashing, Formation widening stone and pipe crossings, Gates	\$20,000	Links with existing clearing by Property owners and improves current fire access
3	6.58 KM	Kurts, Porcupine	Vegetation Slashing, Formation widening stone and pipe crossings, Gates	\$20,000	Required for current Hazard Reduction Program, Perimeter trails adjoin B.Mtns Nat. park
4	8.87 Km	Hanlons Rd Nth, Bilpin Springs, Station	Vegetation Slashing, Formation widening stone and pipe crossings, Gates		Some existing access to be relocated, stage necessary for protection of Village infrastructure.
5	17.29 Km	Hanlons Rd. Sth., Horsfield, Bullocks, Powells, Valley Ridges.	Vegetation Slashing, Formation widening stone and pipe crossings, Gates. Some Minor relocation		Links to trail maintenance carried out by Landowners. Multiple Landowners in Horsfield and Bullocks.
6	8.62 KM	Pup, Pines	Vegetation Slashing, Formation widening stone and pipe crossings, Gates. Some Minor relocation		Multiple Landowners, minor works to be done. Required for HR. in two years

Mt Tomah

Wildfire Mitigation and Community Resilience Plan

Mt Tomah Access Trail Map Annexure

