

6.2.4 Fire Access Track - McKenzie Road Beaconsfield Upper

File Reference: Nil
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Recommendation(s)

That Council proceeds with the planned upgrade of the fire access track at McKenzie Rd, Beaconsfield Upper, including installation of gates.

Attachments

1. Metropolitan Fire Access Track Standards Guide [6.2.4.1 - 7 pages]
2. Map of Area Effected by McKenzie Road Fire Access Track [6.2.4.2 - 1 page]
3. Fire Access Tracks FRC Report [6.2.4.3 - 16 pages]
4. Fire Access Tracks and Gates Compliance Report [6.2.4.4 - 6 pages]
5. CFA Position Paper [6.2.4.5 - 2 pages]

Executive Summary

This report has been prepared in response to a Notice of Motion carried at the 17 August 2020 Council meeting.

In 2019, the Cardinia Shire Council commissioned a report into the condition of the shire's network of 33 Fire Access Tracks. This report was completed by Fire Risk Consultants Pty Ltd and recommended a range of work to be undertaken on the track network in order to comply with the newly developed Metropolitan Regional Fire Access Track Definition. Fire Risk Consultants also provided quotations for the required work.

Three contractors have been engaged to undertake the works recommended on the fire access tracks within Cardinia Shire. The scope of works involves vegetation management, road surface maintenance and installation or maintenance of access gates.

The site at McKenzie Rd Beaconsfield Upper (south of Tower Rd) is one of council's listed fire access tracks and is subject to the package of works as per other sites. Local residents have presented objections to the works proceeding, which has been subject of representations to Councillors and local Members of Parliament.

Currently McKenzie Road between Split Rock Rd and Tower Road can be is split into three sections;

- Southern Section – 345m section, 4C-Local Collector Road
- Middle Section – 380m section, 4E-Fire Access Track. No legal points of access are found on this section.
- Northern Section – 102m section, 4C-Local Collector Road.

It is recommended that Council proceeds with the planned upgrade of the fire access track at McKenzie Rd, Beaconsfield Upper including installation of gates at either end for the following reasons;

- The nature of the track and its status as a fire access track and not a public road.
- To ensure compliance with the Southern Metropolitan Standard for Fire Access Tracks.

- The potential risks and liability issues related to public use of a track which is not designated or maintained as a public road.
- The strategic fire management benefit of the fire access track.
- The risks involved in not gating and preventing vehicular access to a fire access track.
- Concerns with residents having identified the fire access track as a potential escape route in case of a fire emergency.
- The financial and ecological costs of upgrading this fire access track to a 4C-Local Collector Road Standard.

Background

At the Council meeting on 17 August 2020 Cr Brett Owen moved the following Notice of Motion which was carried by Council:

'That a report be prepared for consideration at the September Council Meeting regarding the decision to install gates at either end and upgrade the fire access track section of McKenzie Road, Upper Beaconsfield.'

This report has been prepared in response to the above Notice of Motion.

Cardinia Shire has experienced a number of major bushfires over the years including:

- February 1898 the Koo Wee Rup swamp
- January 1939 'Black Friday'
- February 1983 'Ash Wednesday'
- April 2008 - Bunyip State Forest
- February 2009 'Black Saturday'
- October 2015 - Maryknoll
- March 2019 - Bunyip State Park - Tonimbuk

Since the 1950s, rainfall has decreased in south-east Australia, droughts have become more severe and the number of extremely hot days has risen. Hotter and drier years increase the risk of fire. Climate change projections indicate that the south-east of Australia is likely to become hotter and drier in the future.

As part of an integrated and coordinated fire management plan, Cardinia Shire maintains a network of 33 Fire Access Tracks across the shire. Fire access tracks are intended to facilitate travel for emergency response vehicles to areas inaccessible by the existing public roads and enables rapid first attack suppression of ignitions.

In 2019, Cardinia Shire undertook a review of the condition of the network of fire access tracks, completed by Fire Risk Consultants Pty Ltd (FRC). This report found that of the 33 tracks, only four were compliant with the updated Metropolitan Regional Fire Access Definition requirements. Shortfalls were identified in vegetation clearance, both low levels and box clearance, road surface, gate and sign installations and large tanker accessibility. FRC provided a quotation for rectification of the sites to the updated standard.

The report was tabled and discussed at the February 2020 Municipal Fire Management Planning Committee (MF MPC) meeting, and the report recommendations were endorsed by the committee.

To ensure the most appropriate expenditure of public funds, council officers invited a further two local contractors, previously used by council, to provide quotations on the works on an individual site basis.

An analysis of quotations was undertaken which identified the scope of works offered by each contractor and an assessment of best value for money. This process resulted in the 31 sites (two additional sites in Lang Lang are being reviewed for their usefulness as fire access tracks) being split equitably between the contractors with two contractors allocated 10 sites and the other 11 sites.

Work on the identified fire access tracks began in late June 2020 and as at 8 September 2020, the majority of works have been completed.

The specific concerns related to the McKenzie Rd fire access track as raised by residents were discussed in detail at the August 2020 meeting of the MFMP. Following extensive discussion, the MFMP voted unanimously in favour of proceeding with the works, recognising:

- The nature of the track and its status as a fire access track
- The potential risks and liability issues related to public use of a track not designated or maintained as a public road
- The strategic fire management benefit of the road
- The risks involved in not gating and preventing vehicular access to a fire access track
- Concerns with residents having identified the track as a potential escape route in case of a fire emergency.

Works at the McKenzie Road fire access track have been paused pending the outcome of this report to Council.

Role of the MFMP

The MFMP has been established pursuant to Division 3 of the Country Fire Authority Act 1958 (CFA Act). The MFMP membership includes representatives from Council, the Country Fire Authority (CFA), Victoria Police, Parks Victoria, Forest Fire Management Victoria, Department of Transport, SP Ausnet and, since July 2020, Fire Rescue Victoria. The membership group has a significant level of experience and knowledge in fire and emergency management and is considered a group of experts.

The MFMP's role is defined in Section 55 of the CFA Act:

The functions of each municipal fire prevention committee shall be—

- (a) to plan the burning or clearing of firebreaks within the area for which it is appointed;
- (b) to advise the appropriate authorities as to the existence of and steps to be taken for the removal of fire hazards within the area;
- (c) to advise and make recommendations to the municipal council in the preparation of its municipal fire prevention plan;
- (d) to recommend to the Authority or to the appropriate authorities (as the case may require) any action which the committee deems necessary or expedient to be taken for reducing the risk of an outbreak of fire or for suppressing any fire which may occur within the area;
- (e) – repealed
- (f) to advise the fire prevention officer concerning the removal of fire hazards under section forty-one of this Act;
- (g) to refer to the regional fire prevention committee for consideration all matters which in the opinion of the municipal fire prevention committee should be so referred; and
- (h) to carry out such other functions as are conferred or imposed upon municipal fire prevention committees by regulations made upon the recommendation of the Authority.

The MFMP provides a highly valued advisory role to council to assist in meeting council obligations under section 43 of the CFA Act.

Risk considerations

The issue of risks arising from unauthorised use of fire access tracks was discussed at length at the August 2020 MFMPC meeting in relation to McKenzie Rd, noting:

- Potential liability relating to public vehicular access of track that is not maintained to public road standards
- Potential damage to track surface through unauthorised use resulting in inability for track to be used for its primary purpose
- Potential loss of life of residents due to using the track as an evacuation route in the case of a fire emergency.

Status of McKenzie Road

The following is a summary of the asset management information relating to the McKenzie Road fire access track:

- The Fire Access Track had not existed in Conquest (asset log software) until 6 May 2004 when it appears to have been created as part of a review of all roads maintained by Council. This was undertaken in order to compile the original Register of Public Roads that is required by the Road Management Act which came into force on 1 January 2005.
- In 2004 the Fire Access Track was noted as starting at 340m north of Split Rock Rd and the length suggested it went all the way to Tower Rd.
- It was in December 2006 that Council actually created a segment for the section of road from No. 30 to Tower Rd, and adjusted the Fire Access Track segment, after Council's Operations Team pointed out that Council maintained that 100m off Tower Road as well.
- Any road designated as a Fire Access Track in Conquest is not deemed to be a Public Road for the purposes of the Road Management Act.

The fire access track section of McKenzie Road can be upgraded to public road standard to allow public access. However, an upgrade to public road standard will require significant works and come at significant financial and ecological costs. From a desktop evaluation undertaken as part of the preparation of this report, 380m of Fire Access Track would need to widen by 2m on either side of the existing track. Large numbers of trees would need to be removed in order to upgrade this to a public road, with consequent ecological and biodiversity impacts. The financial cost estimate for this road upgrade is outlined in the financial section of this report.

If this upgrade to public road work was to occur, it is recommended that similar works be completed on 100m section of McKenzie Road off Tower Rd. These works would come at additional environmental and financial costs.

Pedestrian and equestrian access

The installation of gates is intended to limit the access to vehicular traffic only. Pedestrian and equestrian access will be retained along the track. The gates will be able to be opened as required for community events such as the Tower Run.

Emergency access

The gates will be secured with a Cardinia Shire type 5.1 padlock. All CFA brigades within Cardinia Group as well as the Fire Rescue Victoria Station 93 (Pakenham) have been issued these keys for their appliances. As with all fire access track gates fire services can unlock these gates as required for operations or preparedness works.

Leave early messaging

As a result of the Royal Commission into the 2009 Bushfires, the Victorian Government amended the advice to residents in high fire risk areas. CFA advice is:

Leaving early is the safest option to protect yourself and your family. Leaving early means leaving the area before a fire starts – not when you can see flames or smell smoke. Leaving early means avoiding panic, being trapped, making the wrong choices and risking serious injury or death. Talk to your family and friends about how you'll know when to leave and where to go to stay safe.

It has been noted that the McKenzie Road was affected in the 1983 Ash Wednesday Fires and provided an escape route for residents. In light of current advice and learnings, relying on evacuation via McKenzie Road or any other public road is fraught with danger and should be actively discouraged. Council continues to engage with local communities to provide appropriate emergency planning advice to residents, consistent with recognised best practice across emergency management agencies.

Policy Implications

The works on these tracks serves to maintain Council's compliance with the requirements of section 43 of the Country Fire Authority Act 1958. This section requires Council to take all practicable steps to prevent occurrence of fires and minimise the danger of spread of fire on and from any land or road under its control. The works will ensure that fire agencies are able to utilise the Fire Access Track network to undertake fire management and suppression works.

This project aligns with the Council's Liveability Plan outcome of Improved safety. Safety is about being and feeling safe. It's about protecting people from danger and preventing harm where there are known hazards or risks to personal safety.

Relevance to Council Plan

This project relates to section 1.7.3 of the Council Plan - Protect against the impacts of emergencies through effective preparation and community planning and education.

Climate Emergency Consideration

This proposal does not specifically contribute to any mitigation measures pursuant to the Climate Emergency Declaration, however it recognises the potential increased risk and impact of bushfire associated with climate change.

Consultation/Communication

Consultation on this project has been undertaken through the preparation of the initial report, which has been presented and accepted by the Municipal Fire Management Planning Committee (MFMP). Additional consultation has been through the Country Fire Authority's Vegetation Management Officers at Districts 8 and 13. Internal consultation has taken place with staff from the Environment and Operations departments.

Letters outlining the nature of works were sent to affected residents at sites where gates were not previously installed. As a result of these letters, Council officers received eight enquiries from residents across a range of fire access tracks with questions or concerns, with all issues being resolved with the exception of the McKenzie Rd fire access track.

Three of these enquiries relate to the McKenzie Road fire access track and have been raised by five residents representing three properties. These enquires related to general clarification of the scope of the works, concerns regarding the loss of alternative route for everyday

travel/access, the loss of an escape route in case of bushfire for residents as well as the concerns with the cost of installation of gates.

Further discussion and provision of information has been undertaken with two residents relating to the McKenzie Road fire access track including phone conversations and letters sent.

It is also understood that a number of residents from the vicinity of the McKenzie Road Fire Access Track have more recently communicated with Councillors, in particular Cr. Brett Owen, raising similar issues to those raised previously through the formal consultation process but, additionally, the potential for impact on local running events, walking and equestrian activity.

Additional advice has been sought from the Country Fire Authority and is attached to this report.

Financial and Resource Implications

The entire project budget has been funded from existing Council allocations for fire management projects, supplemented by a grant from DELWP/CFA under the Reducing Bushfire Risk program. Of the project cost of approximately \$150 000, the grant has provided funds of \$73 000.

Specifically, in relation to the McKenzie Road site, the costs are:

- Vegetation and road maintenance works: \$585
- Supply and installation of gates: \$7304.

All shire fire access tracks are maintained prior to the fire danger period as part of the parks and gardens maintenance contract. This contract provides for maintenance of tree and vegetation along the fire access track network.

As part of the fire access upgrade project, ongoing monitoring and maintenance of track surfaces, gates and signage will be incorporated within the Council budget for fire prevention works.

Council officers have undertaken a desktop evaluation to understand the cost and work required to construct the 380m section of McKenzie Road, taking it from a 4E-Fire Access Track to a 4C-Local Collector Road to match the southern section of McKenzie Road.

Using Council's Standard Drawing CSC-006 Gravel road partial construction. This standard drawing requires a 5m wide pavement with an additional 1m either side to accommodate a shoulder and drainage, bringing the total width required of 7m wide.

To enable this will require significant vegetation removal 2m either side of the existing track.

The estimated costs to construct this 380m section of McKenzie Road is \$45,835.80, not including vegetation offset. These costs would need to be requested. Estimates range between \$40k to \$80k. Total estimated update cost is \$125,000.

However, this figure can be assumed to be higher, as a detailed site assessment would need to be made to provide a more accurate estimate of costs to Council. Please note this estimate does not include any work required to 100m section of McKenzie Rd off Tower Road.

Conclusion

It is recommended that Council proceeds with the planned upgrade of the fire access track at McKenzie Rd, Beaconsfield Upper including installation of gates at either end for the following reasons;

- The nature of the track and its status as a fire access track and not a public road.
- To ensure compliance with the Southern Metropolitan Standard for Fire Access Tracks.
- The potential risks and liability issues related to public use of a track which is not designated or maintained as a public road.
- The strategic fire management benefit of the fire access track.
- The risks involved in not gating and preventing vehicular access to a fire access track.
- Concerns with residents having identified the fire access track as a potential escape route in case of a fire emergency.
- The financial and ecological costs of upgrading this fire access track to a 4C-Local Collector Road Standard.

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**SAFER
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Overview:

Within the Metropolitan region roads consist of two groups: Public Roads and Operation Roads (council and privately-owned roads) (DSE, 2011). Public roads provide transportation to all members of the public. Operational roads are used for management purposes, including fire prevention and suppression. Operational roads can, at times be used by the public but their condition can not be assured (DSE, 2011). A further sub category of operational roads is Fire Access Tracks. The aim of this document is to define Fire Access Tracks at a regional context.

The purpose and function of Fire Access Tracks is often misunderstood, which creates a communication barrier when interacting with agencies and members of the public. There is currently no legislation which defines the function and use of Fire Access Tracks. This document seeks to consolidate a unanimous definition of Fire Access Tracks between agencies and public stakeholders within the Metropolitan region, to facilitate tenure blind and concise, future discussions.

Note: This documents focus is on Fire Access Tracks and providing a definition of their purpose and function within the Metropolitan region. This document does not discuss the roadside fuel management strategy which details where roadside fuel management occurs across the Metropolitan region.

Purpose of Fire Access Tracks:

Fire Access Tracks play a critical role during first attack suppression. They aim to facilitate rapid and concentrated response, alternative to public roads and often lead to locations which are inaccessible via the standard public road networks (Terramatrix, 2015, CFA, 2018, Terramatrix, 2019) Therefore, Fire Access Tracks offer:

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- Improved ability of emergency response vehicles to access an incident.
- Alternate access/egress routes for protection of fire fighters.
- Quicker access to fires for earlier containment (CFA, 2018).
- Additional fuel breaks to hinder the progress of a bushfire.
- May function as containment lines.
- Access to complete fuel treatment works (Casey Council, Per. Com., 2019).

Unintended use of Fire Access Tracks:

There are misconceptions about Fire Access Tracks and their function for the public, these misconceptions are, Fire Access Tracks:

- Act as an escape route for public from an emergency (Terramatrix, 2015).
- Are to be used as local private access roads for private residents.
- Can be used as short cuts for residents.

These practices should be discouraged via clear standardised signage and gates where appropriate. Public vehicles using the track as an escape route during an incident would be dangerous and could lead to blocking the passage of emergency response vehicles using the tracks as an access route to the incident.

Other uses of Fire Access Tracks:

Land managers have the ultimate say about the recreational use of Fire Access Tracks under their jurisdiction. Some Fire Access Tracks across the region are used for cycling, seasonal four-wheel driving and horse riding by the public. For these recreational activities to take place, land managers should specify and provide signage indicating that these activities are appropriate as well as fire access signage. Fire danger rating thresholds for the recreational activities should be indicated at the entry point to the track e.g. "Track is not suitable for recreational use on total fire ban days". There could be liability implications for the land managers if they do not display a fire danger rating threshold for recreational use. If there is only fire access signage at the entry point of a track, public are discouraged from using the track for recreational purposes.

Liability implications:

If a Fire Access Track is on agency land and isn't gated or clearly signed, then there is potential for liability implications if a member of the public is harmed while on agency land.

Proposed definition:

A Fire Access Track facilitates travel for emergency response vehicles to areas inaccessible by the existing public roads and enables rapid first attack suppression of ignitions (Terramatrix, 2015, CFA, 2018, Terramatrix, 2019).

Recommended standards for all Fire Access Tracks

Dead end tracks/No through tracks:

All trails with only one entry and exit point are considered dead end tracks (NSW Rural Fire Service, 2017). For the safety of first responders entering the track, signage should be displayed stating, "No Through Road". Dead end tracks should also provide turn-around points at the end of the track (dimensions specified for tankers and slip-on Fire Access Tracks further in the document). Where possible, dead end tracks should be phased out. Tracks should link to another track or road.

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Gates:

Fire Access Tracks within Metropolitan region can be optionally gated by the land manager. It is recommended that Fire Access Tracks are gated to actively discourage public use. Recreational four-wheel driving can lead to severe track degradation (Figure 6), increasing maintenance cost and restricting emergency access.

If gates are installed, they must be able to be operated by one person without assistance or machinery (NSW Rural Fire Service, 2017). The gate must also have a width suitable (minimum 3.5m) to provide clear access the intended vehicles passing (e.g. tanker and slip-on).

Locks:

The fire management policy (Terramatrix, 2015) recommends gated tracks should be have two levels of operation:

1. Open during dry weather only.
2. Opened only by emergency services.

Many fire authorities will request that gated tracks are open and unlocked during the fire danger period to facilitate rapid access if there is a fire.

Keys to locked gates must be provided by land managers to local fire authorities (Country Fire Authority, Forest Fire Management, Melbourne Water, Metropolitan Fire Brigade). Keys should aim to be Universal within land management boundaries (e.g. a council has one key that opens all their locks) [recommend 003 lock].

Track inspection:

Tracks should aim to be inspected on an annual basis prior to the fire danger period. Councils which contain many Fire Access Tracks should coordinate with Country Fire Authority brigades and delegate a suitable amount of inspect works. Response to the inspection should be acted upon within an appropriate timeframe depending upon severity of the inspection results. E.g. Inaccessible due to a down tree across the track should be acted upon immediately. Whereas track degradation (potholes forming) can be acted upon with less urgency in accordance with the track compliance type (tanker or slip-on compliant).

Standardised signage:

Signage for Fire Access Tracks should be standardised across agencies.

Signs should have a red base and display the agency name/logo and read "FIRE AND EMERGENCY ACCESS KEEP CLEAR AT ALL TIMES".

Size: the minimum size of a fire access sign is A5 although it is recommended to use A4 – A3 size for ease of visibility for the public.

Dead end track signage:

Tracks with only one entry and exit point are considered dead end tracks and should be provided signage stating, "No Through Road".

Tanker and slip-on signage: (optional)

If land managers want to be clear about a Fire Access Tracks intended vehicle use they can provide signage for slip-on compliant tracks as displayed in Figure 1c.



Figure 1a. Fire Access Track signage. Name of agency, "FIRE AND EMERGENCY ACCESS KEEP CLEAR AT ALL TIMES"



Figure 1b. Dead end track signage. "NO THROUGH ROAD"



Figure 1c. Slip-on access only sign for tracks not suitable for tankers



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Tanker compliant tracks:

Tanker compliant Fire Access Tracks should aim to be maintained to these standards (DELWP, 2017, DSE, 2011):

- ❖ Substantially single lane and able to cater for two-way vehicle passing (e.g. passing vehicles straddle track verge)
- ❖ Formed of natural materials
- ❖ Predominately dry weather use only (limited wet weather access)
- ❖ May be restricted to 4X4 access
- ❖ Turn-around points/passing bays every 200m (CFA, 2018) as specified in Table 1 or where suitable.
- ❖ Guidepost and safety barriers should be used in critical locations of the track, if they are missing or damaged, they should be replaced with effective safety barriers and guidepost or temporary delineators.

Table 1. Tanker compliant Fire Access Track specific standards.

Tanker compliant tracks conditions	Measure
Minimum Carriageway width	4m
Minimum height clearance	4.5m
Turn-around-point/passing bays	7m (w) x 20m (L)
Dead end track turn-around point	15 x 20m
Slope	< 18 degrees

Tanker track description of hazards	Intervention level
Height of obstacles on track	< 300 mm
Deformations (rutting)	< 200 mm depth
Potholes	< 250 (D) x 600 mm (W)
Slippery loose material on road	Maximum depth of 150mm

Quality control	Rate
Track inspections	Once per year
Response to track inspections	Prior to fire danger period if the no longer meets specifications or within 12 months of notification

Table 1. Indicates the specific standards of tanker compliant Fire Access Tracks and outlines measured track specification and intervention level triggers for inspection and response purposes.



Figure 2. Forest Fire Management tanker Unimog (left) Country Fire Authority Tanker (right) [Source: CFA tanker S Merritt].

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Slip-on/Ultra-light-tanker compliant tracks:

Slip-on compliant Fire Access Tracks should aim to be maintained to these standards (DELWP, 2017, DSE, 2011):

- ❖ Predominantly single lane two-way track (i.e. one lane drivable in both directions with track portions allowing vehicle passing by straddling track verge)
- ❖ Formed of natural materials
- ❖ Dry weather conditions only or opened only by emergency services (at discretion of land manager)
- ❖ Mainly 4x4 access
- ❖ Turn-around points/passing bays every 350m (DELWP, 2017) as specified in Table 2 or where suitable.
- ❖ Guidepost and safety barriers should be used in critical locations of the track, if they are missing or damaged, they should be replaced with effective safety barriers and guidepost or temporary delineators.

Table 2. Slip-on compliant Fire Access Track specific standard.

Slip-on compliant tracks conditions	Measure
Minimum Carriageway width	3m
Minimum height clearance	4m
Turn-around-point/passing bays	6m (w) x 15m (L)
Dead end track turn-around point	10 x 10m
Slope	23 degrees maximum

Slip-on track description of hazards	Intervention level
Height of obstacles on track	< 300 mm
Deformations (rutting)	< 500 mm depth
Potholes	< 300 (D) x 900 mm (W)
Slippery loose material on road	Maximum depth of 300mm

Quality control	Rate
Track inspections	Once every two years
Response to track inspections	Prior to fire danger period if the no longer meets specifications or within 12 months of notification

Table 2. Indicates the specific standards of slip-on compliant Fire Access Tracks and outlines measured track specification and intervention level triggers for inspection and response purposes. Slip-on compliant tracks will generally be in poorer condition than a tanker compliant track.



Figure 3. Forest Fire management slip-on (Left) Country Fire Authority slip-on (right) [Source: CFA slip-on S Merritt].



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Figure 4. Example of a tanker compliant Fire Access Track.



Figure 5. Example of a slip-on compliant Fire Access Track.



Figure 6. Damage from illegal woodcutters to a Fire Access Track.

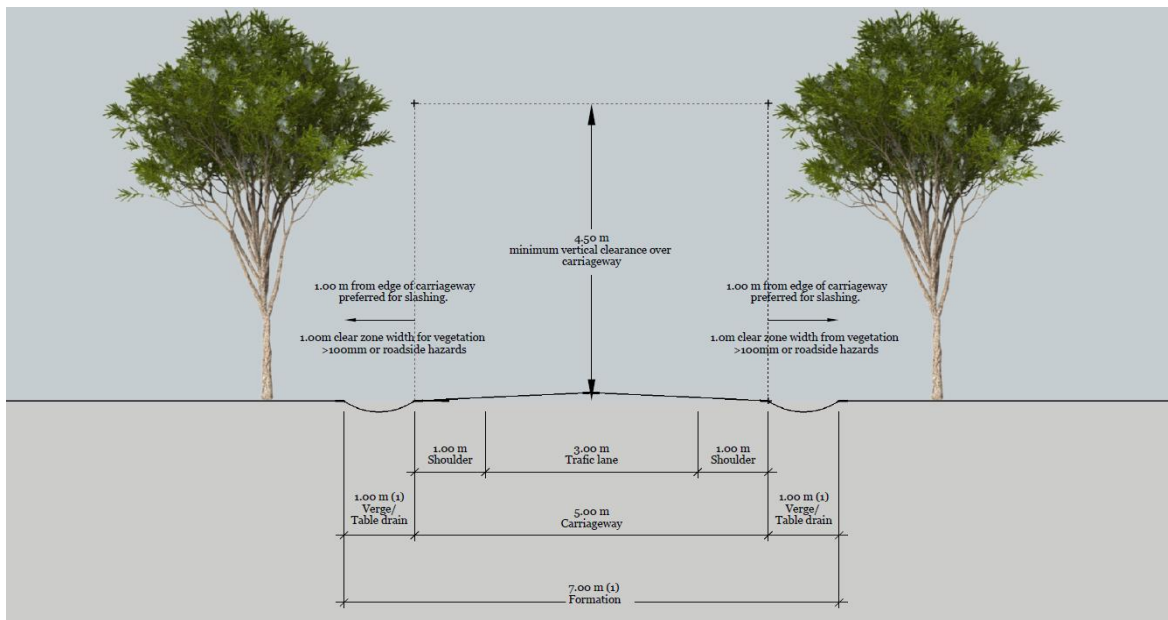


Figure 7. Ideal dimensions of a tanker compliant Fire Access Track (5D DELWP road standard).



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References:

Country Fire Authority (CFA), 2018. Fire Access Road Subsidy Scheme.

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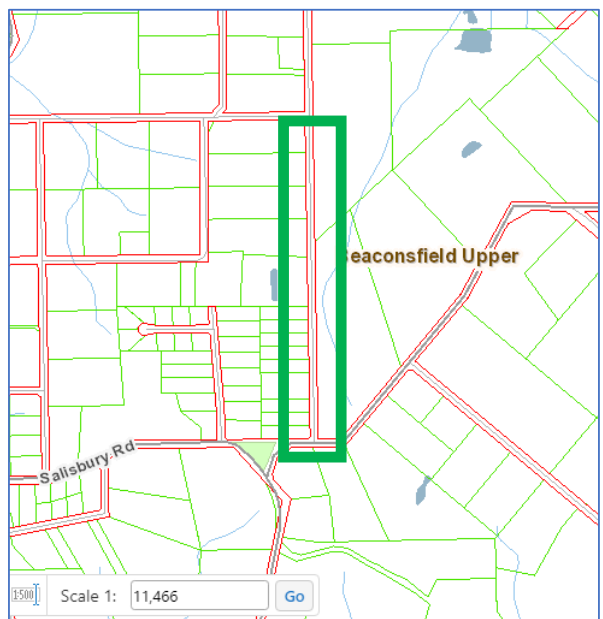
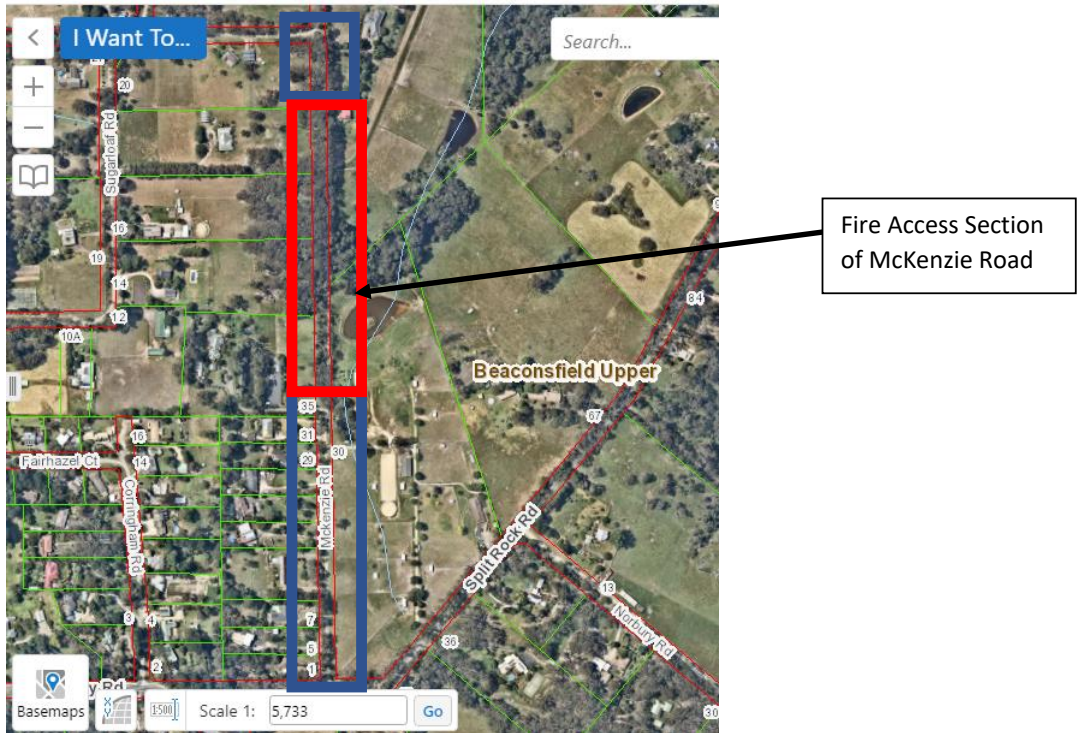
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Map of Area Affected by McKenzie Road Fire Access Track





**Cardinia Shire Council -
Fire Access Track
Inspection Program**

**Onsite Assessments Report
November 2019
Fire Risk Consultants Pty Ltd**



Cardinia Shire Council - Fire Access Track Inspection Program

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Cardinia Shire Council - Fire Access Track Inspection Program

Introduction and Project Scope

Fire Risk Consultants was engaged by the Cardinia Shire Council in November 2019 to complete an analysis of 33 fire access tracks across the Shire area. This list had been recently modified by Council staff from an original list of 47 fire access tracks.

The list of tracks assessed by Fire Risk Consultants were:

Description	Location
Upper Grieve Rd: (1897-001) Fire Access from Belgrave Gembrook Rd to No. 24 (Driveway)	Avonsleigh
Hilltop Reserve: Fire access track from O'Neil Rd to Crestview Drive	Beaconsfield
Baker St Extension: (1117-005) To Creek	Cockatoo
Garden City Estate: Fire Access Track from Bailey Rd to Rear of No.22 Seaview Rd	Cockatoo
Kirk Rd: (1389-010) Start of Fire Track to Gate	Cockatoo
Sixth Av: (4046-005) Bailey Rd to South end of main Fire Access Track in Garden City Estate	Cockatoo
Tymon Rd: (1726-010) Doonaha Rd To East Fl No.10	Cockatoo
Bedford Rd: (1059-003) Evans Rd To Driveway at No 80	Cockatoo
Garden City Estate: Fire Access Track Sth West cnr to rear of No.48 Second Ave	Cockatoo
Seaview Rd: (1620-015) Fire Access from No.34 To Paternoster Rd	Cockatoo
Fire Access Track: From Railway in Nth East cnr to top Car Park East of Lion's Den Picnic Shelter	Emerald
William St: (1770-005) Ulmer Rd To Sth Fl No 33 William St (Fire Access)	Emerald
Bellbird Cr Fire: (3087-010) Emerald Lake Park via Bellbird Cr	Emerald
Church St: (2110-020) Fire Access from No 24 To Clematis Park Rd	Emerald
Deery Rd Fire Access: (1172-010) Deery Rd To Beaconsfield Emerald Rd	Emerald
Grandview Avenue Fire Access: to Sunnyside Terrace	Emerald
Fire Access Track: Crichton Rd Gate to ELP via Rail Line (Also known as Nobeilus Siding in the MWPP)	Emerald
Gembrook Park: Fire Access Track Off Knight Rd	Gembrook
Watsons Rd: (1910-009) Fire Access track from 185m Nth of Martins Rd to 100m Sth of Westernport Rd	Lang Lang East
Burt Road Fire Access: to Watson Road North	Lang Lang
Wirragulla Rd: (2087-015) Koolbirra Rd to Baroona Rd	Maryknoll
Bunyip Water Race Fire Access: From Thewlis Road to Dickie Road	Officer
Watson Rd: (1756-015) Fire Access Track from west of Driveway No.255 to East of driveway No. 145	Officer South
Appletree La: (1026-005) Pakenham Rd To Sth Fl No 70 (Fire Access)	Pakenham Upper
Halifax Rd: (1294-005) Mt Eirene Rd To End of Fire Access at Driveway No 56 (Comes out at 195 Halifax Rd)	Pakenham Upper
Old Gembrook Rd: (1543-010) Fire Access Track Starting 290m Nth of Huxtable Rd	Pakenham Upper
Harvie Rd: (1307-005) Trevor Rd To End of Fire Access at No. 275 Driveway	Pakenham Upper
Old Gembrook Rd: (1543-030) Driveway No.300 To Pakenham Rd	Pakenham Upper
Bridal Rd: (1094-010) No. 228 (Driveway) to Scout Camp	Tonimbuk
McKenzie Rd: (1477-010) Fire Access Track from No.35 To Sth Driveway No.30	Upper Beaconsfield
End of Brennan Av: (1091-010) Gate to Cardinia Creek	Upper Beaconsfield
Foott Rd: (1236-010) End (No. 169) To Cardinia Creek	Upper Beaconsfield
Yackatoon Rd: (1788-005) Berglund Rd (Sth - Gate) to Fire Access Track (Gate)	Upper Beaconsfield

Cardinia Shire Council - Fire Access Track Inspection Program

Fire access tracks play a critical role during first attack bushfire suppression operations. They provide quick and safe access to fires for early containment by the Fire Agencies (CFA 2018) and in some cases provide access to properties in addition to normal road and street access points.

A fire access track also facilitates travel for emergency response vehicles to area inaccessible by the existing road network and enables first attack suppression of new ignitions (Terramatrix 2015,2019, CFA 2018)

Under moderate fire conditions they may also provide a break in the landscape to impede the progress of a bushfire or alternatively give firefighters time to implement other fire management strategies.

Within the scope of this project, Fire Risk Consultants was engaged to gather relevant information on specific areas in the fire access track network, including:

1. The collection of all relevant information on the fire access network, including type, standard, location and appropriateness as a fire access track.
2. To conduct on ground assessments across the network, scoring individual access tracks against criteria, either being compliant or non-compliant
3. Providing information on likely costs to bring access track up to compliant standard
4. Providing a brief report to Council on the track inspection program

Fire Risk Consultants have inspected and assessed each fire access track against set criteria and in accordance with the scope of the project detailed above. We have also prepared a summary of inspections and the required works for compliance. The consultants also:

- Reviewed previous CFA standards for fire access tracks
- At the request of Cardinia Shire Council held discussions with local CFA Groups on operational requirements for fire access tracks in their area
- Sought opinion from local CFA Brigades and Groups on what specifications a fire access track should be maintained to
- Scoped costs to make tracks compliant and maintain existing fire access track network
- Provided general comments, recommendations and a report on the fire access track inspections

Key Stakeholders

Key stakeholders identified in this project were:

CFA - Group and local Brigades, District 8 Vegetation Management Officer

Cardinia Shire Council staff, including Councillors, members of the Natural Values Teams, the Emergency Management Team and the Municipal Fire Management Officer.

Cardinia Shire Council - Fire Access Track Inspection Program

Relevant Legislation

Section 43 of the *Country Fire Authority Act 1958* states 'it is the duty of every municipal council and public authority to take all practical steps (including burning) to prevent the occurrence of fires on, and minimise the danger of the spread of fires on and from – any land vested in it or under its control or management: and any road under its care and management'.

Under Victoria's *Safer Together: A new approach to reducing the risk of bushfire in Victoria*¹ initiative a draft fire access track definition has been developed for the metropolitan area of Melbourne and this document has been utilised extensively for track compliance purposes during the fire access track analysis.

The individual criteria considered was gates, locks, signage, tanker accessibility (only consider CFA heavy tanker as this is the predominate fire vehicle in use) and operational feasibility.

General Observations

The Shire currently maintains 33 roads (down from 47 after review) covering 22 kilometres.

The current fire access track network also has recreational value for cycling, walking and horse-riding activities.

The multi-purpose use of Cardinia's fire access track network by both fire agencies and community recreational groups will determine gate and signage standards, open opportunities for alternate funding and have possible liability implications.

Applying the draft definition of a fire access track the current network resulted in the majority of the tracks being deemed noncompliant. In the opinion of the consultants this is not a true indication of the state of the network, rather it is an outcome of applying a draft standard that fails to reflect the multipurpose function the Cardinia fire access tracks perform, the changes to local CFA operational procedures to ensure firefighter safety during extreme fire danger days and the local knowledge that brigades have on the accessibility of fire access tracks.

The standardisation of gates and signage will require funding but should only be initiated after the review of the fire access track network.

Details of site inspections and specific compliance issues along with indicative costs to undertake works to reinstate the tracks to provide safe access and egress for fire fighters can be found in the attached report *Fire Access Tracks and Gates Master List FRCFinal2019*.

Several photos are attached to this report for visual reference. They provide a snapshot of the current fire access track conditions across the Cardinia Shire area.

¹ Information on Safer Together can be found at: <https://www.safertogether.vic.gov.au/background>

Cardinia Shire Council - Fire Access Track Inspection Program

Going forward the fire access track network could be included as part of the current work within Council in fuel management on roadsides to reduce bushfire risk.

This enhanced program could include common operation principles for the fire access track network such as:

- a. Having clear and measurable non-agency specific objectives
- b. Having a funded program with clear standards for fire access tracks
- c. Include a dangerous trees removal strategy on Council fire access tracks
- d. Include community consultation and involvement in program delivery
- e. Employ a holistic management approach reflecting a balanced approach that ensures safety and operational feasibility
- f. Fire access tracks forming part of the strategic, operational and tactical emergency planning within Council

Fire access tracks must provide quick safe access and egress to a bushfire. Our discussions with both Pakenham and Dandenong Ranges CFA Groups confirmed our analysis that under moderate fire conditions and in the initial first attack phase on a fire the use of Cardinia Shire Council fire access tracks would be considered. However, on days of elevated fire danger or in a “going” fire situation they are viewed as high risk and alternate safer options are always considered.

Recommendations

It is a necessary requirement for Cardinia Shire Council to undertake works to ensure current fire access tracks provide safe access and egress for firefighting vehicles.

Fire Risk Consultants recommends that Cardinia Shire Council establish a working group reporting to the Municipal Fire Management Planning Committee to review the existing fire access track network with regards to the operational role each track has under current fire suppression tactics to determine the operational use and maintenance of the track.

When the new standard is finalised, Cardinia Shire Council should ensure fire access tracks are compliant.

Cardinia Shire Council - Fire Access Track Inspection Program



Image 1: Appletree Lane, Pakenham Upper. Note style of gate utilised at this location



Image 2: Clematis Park Road, Emerald. Note installation of bollards at reserve entrance

Cardinia Shire Council - Fire Access Track Inspection Program



Image 3: Halifax Road, Nar Nar Goon. Note encroaching of verge (horizontal) and overhanging (vertical) vegetation



Image 4: Crestview Drive, Beaconsfield

Metropolitan Regional Fire Access Track Definition

**SAFER
TOGETHER**



Draft 2 Feedback due by 7th of August

Overview:

Within the Metropolitan region roads consist of two groups: Public Roads and Operation Roads (council and privately-owned roads) (DSE, 2011). Public roads provide transportation to all members of the public. Operational roads are used for management purposes, including fire prevention and suppression. Operational roads can, at times be used by the public but their condition can not be assured (DSE, 2011). A further sub category of operational roads is Fire Access Tracks. The aim of this document is to define Fire Access Tracks at a regional context.

The purpose and function of Fire Access Tracks is often misunderstood, which creates a communication barrier when interacting with agencies and members of the public. There is currently no legislation which defines the function and use of Fire Access Tracks. This document seeks to consolidate a unanimous definition of Fire Access Tracks between agencies and public stakeholders within the Metropolitan region, to facilitate tenure blind and concise, future discussions.

Note: This documents focus is on Fire Access Tracks and providing a definition around their purpose and function within the Metropolitan region. This document does not discuss the roadside fuel management strategy which details where roadside fuel management occurs across the Metropolitan region.

Purpose of Fire Access Tracks:

Fire Access Tracks play a critical role during first attack suppression. They aim to facilitate rapid and concentrated response, alternative to public roads and often lead to locations which are inaccessible via the standard public road networks (Terramatrix, 2015, CFA, 2018, Terramatrix, 2019) Therefore, Fire Access Tracks offer:

Metropolitan Regional Fire Access Track Definition



- Improved ability of emergency response vehicles to access an incident.
- Alternate access/egress routes for protection of fire fighters.
- Quicker access to fires for earlier containment (CFA, 2018).
- Additional fuel breaks to hinder the progress of a bushfire.
- Function as containment lines.
- Access to complete fuel treatment works (Casey Council, Per. Com., 2019).

Unintended use of Fire Access Tracks:

There are misconceptions about Fire Access Tracks and their function for the public, these misconceptions are, Fire Access Tracks:

- Act as an escape route for public from an emergency (Terramatrix, 2015).
- Are to be used as local private access roads for private residents.
- Can be used as short cuts for residents.

These practices should be discouraged via clear standardised signage. Public vehicles using the track as an escape route during an incident would be dangerous and could lead to blocking the passage of emergency response vehicles using the tracks as an access route to the incident.

Other uses of Fire Access Tracks:

Land managers have the ultimate say about the recreational use of Fire Access Tracks under their jurisdiction. Some Fire Access Tracks across the region are used for cycling, seasonal four-wheel driving and horse riding by the public. For these recreational activities to take place, land managers should specify and provide signage indicating that these activities are appropriate as well as fire access signage. Fire danger rating thresholds for the recreational activities should be indicated at the entry point to the track e.g. "Track is not suitable for recreational use on total fire ban days". There could be liability implications for the land managers if they do not display a fire danger rating threshold for recreational use. If there is only fire access signage at the entry point of a track, public are discouraged from using the track for recreational purposes.

Liability implications:

If a Fire Access Track is on agency land and isn't gated or clearly signed, then there is potential for liability implications if a member of the public is harmed while on agency land.

Proposed definition:

A Fire Access Track facilitates travel for emergency response vehicles to areas inaccessible by the existing public roads and enables rapid first attack suppression of ignitions (Terramatrix, 2015, CFA, 2018, Terramatrix, 2019).

Recommended standards for all Fire Access Tracks

Dead end tracks/No through tracks:

All trails with only one entry and exit point are considered dead end tracks (NSW Rural Fire Service, 2017). For the safety of first responders entering the track, signage must be displayed stating "No Through Road". Dead end tracks should also provide turn-around points at the end of the track (dimensions specified for tankers and slip-on Fire Access Tracks further in the document).



Metropolitan Regional Fire Access Track Definition



Gates:

Fire Access Tracks within Metropolitan region can be optionally gated by the land manager. It is recommended that Fire Access Tracks are gated to actively discourage public use. Recreational four-wheel driving can lead to severe track degradation (Figure 6), increasing maintenance cost and restricting emergency access.

If gates are installed, they must be able to be operated by one person without assistance or machinery (NSW Rural Fire Service, 2017). The gate must also have a width suitable (minimum 3.5m) to provide clear access the intended vehicles passing (e.g. tanker and slip-on).

Locks:

The fire management policy (Terramatrix, 2015) recommends gated tracks should be have two levels of operation:

1. Open during dry weather only.
2. Opened only by emergency services.

Many fire authorities will request that gated tracks are open and unlocked during the fire danger period to facilitate rapid access if there is a fire.

Keys to locked gates must be provided by land managers to local fire authorities (Country Fire Authority, Forest Fire Management, Metropolitan Fire Brigade). Keys should aim to be Universal within land management boundaries (e.g. a council has one key that opens all their locks).

Track inspection:

Tracks should aim to be inspected on an annual basis prior to the fire danger period. Councils which contain many Fire Access Tracks should coordinate with CFA brigades and delegate a suitable amount of inspect works. Response to the inspection should be acted upon within an appropriate timeframe depending upon severity of the inspection results. E.g. Inaccessible due to a down tree across the track should be acted upon immediately. Whereas track degradation (potholes forming) can be acted upon with less urgency in accordance with the track compliance type (tanker or slip-on compliant).

Standardised signage:

Signage for Fire Access Tracks should be standardised across agencies.

Signs should have a red base and display the agency name/logo and read "FIRE AND EMERGENCY ACCESS KEEP CLEAR AT ALL TIMES".

Size: the minimum size of a fire access sign is A5 although it is recommended to use A3 - A4 size for ease of visibility for the public.



Figure 1. Example of a Fire Access Track signage. Name of agency, "FIRE AND EMERGENCY ACCESS KEEP CLEAR AT ALL TIMES"



Metropolitan Regional Fire Access Track Definition



Tanker compliant tracks:

Tanker compliant Fire Access Tracks should aim to be maintained to these standards (DSE, 2011):

- ❖ Substantially single lane and able to cater for two-way vehicle passing (e.g. passing vehicles straddle road verge)
- ❖ Formed of natural materials
- ❖ Predominately dry weather use only
- ❖ May be restricted to 4X4 access
- ❖ Turn-around points/passing bays every 1km or where suitable as specified in Table 1.
- ❖ Guidepost and safety barriers should be used in critical locations of the track, if they are missing or damaged they should be replaced with effective safety barriers and guidepost.

Table 1. Tanker compliant Fire Access Track specific standards.

Tanker compliant tracks conditions	Measure
Minimum Carriageway width	4m
Minimum height clearance	4.5m
Turn-around-point/passing bays	7m (w) x 20m (L)
Dead end track turn-around point	15 x 20m

Tanker track description of hazards	Intervention level
Height of obstacles on track	< 300 mm
Deformations (rutting)	< 200 mm depth
Potholes	< 250 (D) x 600 mm (W)
Slippery loose material on road	Maximum depth of 150mm

Quality control	Rate
Track inspections	Once per year
Response to track inspections	Within 12 months of notification

Table 1. Indicates the specific standards of tanker compliant Fire Access Tracks and outlines measured track specification and intervention level triggers for inspection and response purposes.



Figure 2. Forest Fire Management tanker (Unimog).

Metropolitan Regional Fire Access Track Definition



Slip-on/Ultra-light-tanker compliant tracks:

Slip-on compliant Fire Access Tracks should aim to be maintained to these standards (DSE, 2011):

- ❖ Predominantly single lane two-way track
- ❖ Formed of natural materials
- ❖ Dry weather conditions only or opened only by emergency services (at discretion of land manager)
- ❖ Mainly 4x4 access
- ❖ Turn-around points/passing bays every 1km or where suitable as specified in Table 2.
- ❖ Guidepost and safety barriers should be used in critical locations of the track, if they are missing or damaged they should be replaced with effective safety barriers and guidepost.

Table 2. Slip-on compliant Fire Access Track specific standard.

Slip-on compliant tracks conditions	Measure
Minimum Carriageway width	3m
Minimum height clearance	4m
Turn-around-point/passing bays	6m (w) x 15m (L)
Dead end track turn-around point	10 x 10m

Slip-on track description of hazards	Intervention level
Height of obstacles on track	< 300 mm
Deformations (rutting)	< 500 mm depth
Potholes	< 300 (D) x 900 mm (W)
Slippery loose material on road	Maximum depth of 300mm

Quality control	Rate
Track inspections	Once every two years
Response to track inspections	Within 12 months of notification

Table 2. Indicates the specific standards of slip-on compliant Fire Access Tracks and outlines measured track specification and intervention level triggers for inspection and response purposes. Slip-on compliant tracks will generally be in poorer condition than a tanker compliant track.



Figure 3. Forest Fire management slip-on (Land cruiser).



Metropolitan Regional Fire Access Track Definition



Figure 4. Example of a tanker compliant Fire Access Track.



Figure 5. Example of a slip-on compliant Fire Access Track.

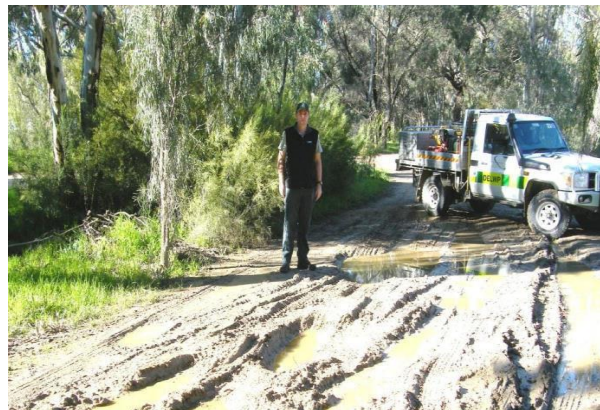


Figure 6. Damage from illegal woodcutters to a Fire Access Track.



Metropolitan Regional Fire Access Track Definition

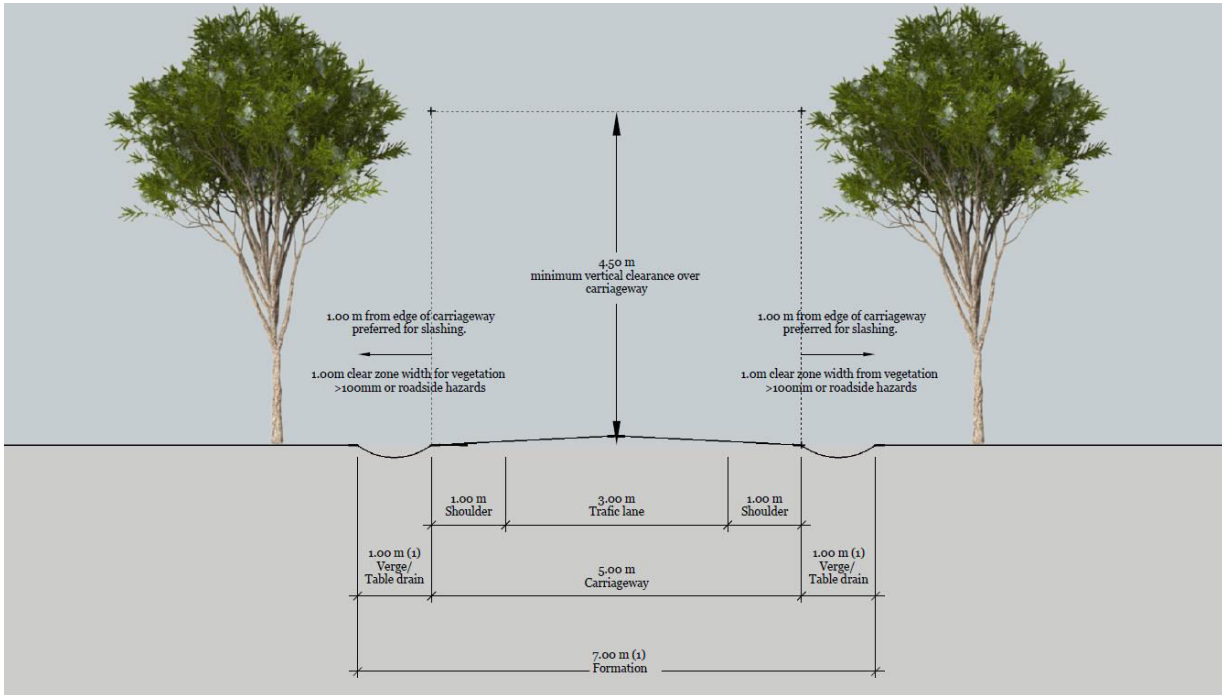


Figure 7. Dimensions of a tanker compliant Fire Access Track (5D DELWP road standard).



Metropolitan Regional Fire Access Track Definition



References:

CFA, 2018. Fire Access Road Subsidy Scheme.

Department of Sustainability and Environment, 2011. Road Management plan. Victorian Government, 8 Nicholson street, East Melbourne.

New South Wales Rural Fire Service, 2017. Fire Trail Standards.

Terramatrix, 2015. Fire management tracks in Victoria policy – prepared by Terramatrix on behalf of Emergency Management Victoria. Terramatrix Pty. Ltd. Collingwood, Victoria, 3066.

Terramatrix, 2019. Roads Fire Management Plan – prepared by Terramatrix on behalf of Mitchell Shire Council. Terramatrix Pty. Ltd. Collingwood, Victoria, 3066.



Cardinia Shire Council - Fire Access Tracks Gates

AssetID	Description	Location	Brigade Area	Segment Length (m)	Gates	Cardinia Shire Council notes: Required and Work Required	Compliant	Fire Risk Consultants: Comments/Scope of Work
20824	Baker St Extension: (1117-005) To Creek	Cockatoo	Cockatoo	200	Yes	Maintained by DELWP – Is required as provides access to the Park.	No	Gate serviceable, needs lock. Drainage & runoffs require maintenance.
24663	Garden City Estate: Fire Access Track from Bailey Rd to Rear of No.22 Seaview Rd	Cockatoo	Cockatoo	1220	Yes	Required as gives access between Seaview and Bailey Rd. In good nick at the moment, requires no work.	No	Only requires minor high pruning and removal of minor storm damage.
24680	Kirk Rd: (1389-010) Start of Fire Track to Gate	Cockatoo	Cockatoo	300		Maintained by local residents, saves 10 Mins drive around time from Woori Yallock to Rainey Hill Rd. Dry weather access only requires no work.	No	Northern gate needs to be fixed, no locks no signs. Track needs minor drainage work.
24710	Sixth Av: (4046-005) Bailey Rd to South end of main Fire Access Track in Garden City Estate	Cockatoo	Cockatoo	865	Yes	Required and in good nick. Provides main access into Garden City bushland and airstrip.	No	Single broken off tree impeding access requires removal. Gate serviceable on Bailey Rd.
20877	Tymon Rd: (1726-010) Doonaha Rd To East Fl No.10	Cockatoo	Cockatoo	215	Yes	Required as allows access from Tymon to Doonaha and cuts off 15 mins drive around time. Is clear at the moment.	No	Needs gate repair and new post each end, signage, high prune, small amount of chainsaw work on wind damage , slash each side.
51791	Bedford Rd: (1059-003) Evans Rd To Driveway at No 80	Cockatoo	Cockatoo	450		Not required	No	No gates or signs. Other than big holes could be used with no other work.
79008	Garden City Estate: Fire Access Track Sth West Cnr to rear of No.48 Second Ave	Cockatoo	Cockatoo	365	Yes	Required as part of access to Garden City estate. Req no work.	No	Requires verge mulching and high pruning. Small task.
62877	Seaview Rd: (1620-015) Fire Access From No.34 To Paternoster Rd	Cockatoo	Cockatoo	330	Yes	Required as allows access into Garden City Estate from the South to protect houses on Paternoster and Seaview Rds and access between Seaview and Paternoster Rds, approx. 10 mins travel time. In good condition at the moment, requires ongoing grading and slashing.	No	Paternoster Road end key to padlock not working. Cut minor storm damage off. Clean and reform runoffs. Slip on accessible only from #34 Seaview, no tanker access. Additional runoff requires work.

Cardinia Shire Council - Fire Access Tracks Gates

AssetID	Description	Location	Brigade Area	Segment Length (m)	Gates	Cardinia Shire Council notes: Required and Work Required	Compliant	Fire Risk Consultants: Comments/Scope of Work
79275	Upper Grieve Rd: (1897-001) Fire Access from Belgrave Gembrook Rd to No. 24 (Driveway)	Avonsleigh	Emerald	30	Yes	Required is maintained as part of Grieve Rd Maintenance	No	Gate ok. Requires high pruning. Need to reconfirm what role this road plays in operations as a fire access.
78788	Fire access track: from railway in north east cnr to top car park east of lions den picnic shelter	Emerald	Emerald	520			No	Track well maintained by Puffing Billy till Bellbird Cr entrance needs 1 mulch width from Bellbird to railway line and tidy up turnaround.
51746	William St: (1770-005) Ulmer Rd To Sth Fl No 33 William St (Fire Access)	Emerald	Emerald	220	Yes		No	Both ends no lock. Posts at each end needs re weld for chain attach point. Needs signs. Ulmer Rd end being maintained by resident. 1metre slash or brush cutter on high side would assist resident work. 100mtrs of brush cutter to widen track at Williams St end required.
24645	Bellbird Cr Fire: (3087-010) Emerald Lake Park via Bellbird Cr	Emerald	Emerald	60	Yes		No	Requires high pruning for clearance in several locations. Gate to fire access ok.
79274	Church St: (2110-020) Fire Access From No 24 To Clematis Park Rd	Emerald	Emerald	185	No		Yes	Access from Clematis Park Rd pull out post 2.5 metre wide track tight with two large trees.
62907	Deery Rd Fire Access: (1172-010) Deery Rd To Beaconsfield Emerald Rd	Emerald	Emerald	485	Yes		No	Access via 86 Emerald Beaconsfield Rd. Spoke to resident can't have locks on gate as on private property. Scrub starting to encroach from southern property 4 small tree removals less than 100mm diameter and one mulcher width or brush cutter as very close to fence.
	Grandview Avenue Fire Access: to Sunnyside Terrace	Emerald	Emerald	115	No		No	High prune.
66379	Fire Access Track: Crichton Rd Gate To ELP via Rail Line (Also known as Nobeilus Siding in the MWPP)	Emerald	Emerald	1,300	Yes		No	Tight for a tanker. Needs mulcher on low side, brush cut high side entire length and low side for 200 mts. High prune, crosscut wind damage gate and lock ok.

Cardinia Shire Council - Fire Access Tracks Gates

AssetID	Description	Location	Brigade Area	Segment Length (m)	Gates	Cardinia Shire Council notes: Required and Work Required	Compliant	Fire Risk Consultants: Comments/Scope of Work
66907	Gembrook Park: Fire Access Track Off Knight Rd	Gembrook	Gembrook	370	Yes	Required for access into the rear of the houses on Gembrook Park Rd as well as access into the Gembrook Park. Still OK Requires no work	No	Requires high prune entire length, side slash, and one tree pushed in. Gate at Knight Rd good need sign to say dead end
22071	Halifax Rd: (1294-005) Mt Eirene Rd To End of Fire Access at Driveway No 56 (Comes out at 195 Halifax Rd)	Pakenham Upper	Pakenham Upper	380		Short cut between Bessie Creek and Mt Eirene. Saves 5-10 Mins. Dry weather only and requires no work	No	Mulcher both sides load of rock at bottom to repair water damage
79326	Wirragulla Rd: (2087-015) Koolbirra Rd to Baroona Rd	Maryknoll	Maryknoll	155	No	Required as allows appliances to access water tanks at the rear of the fire station. Is in OK condition at the moment.	No	Requires a high prune.
79277	Bridal Rd: (1094-010) No. 228 (Driveway) to Scout Camp	Tonimbuk	Bunyip	685	No	Provides access to scout camp. Need some trees trimming to allow access.	No	Good turn around at gate to scout camp but wouldn't get tanker beyond gate. No key to camp gate and no gate at 228 Bridal Rd. It needs a slash on both edges. Don't see value in this road as scouts wouldn't be there on a bad fire day and you wouldn't get tanker to the camp.
63215	Watsons Rd: (1910-009) Fire Access Trk From 185m Nth of Martins Rd to 100m Sth of Westernport Rd	Lang Lang East	Lang Lang	875		Let go as offers little value, access through Private property or road network	No	Need to reopen southern end mulch and prune. Northern end slash and high prune. No locks very basic farm gates.
	Burt Road Fire Access: to Watson Road North	Lang Lang	Lang Lang	1400		Let go as offers little value, access through Private property or road network, Quarry should help stop fire.	No	Needs a slash rather than a mulch, high prune can be done when doing Watsons Rd no gates high prune chainsaw work and some dumped broken concrete to be removed. Very boggy at Watson Rd end could only be done after drying period.

Cardinia Shire Council - Fire Access Tracks Gates

AssetID	Description	Location	Brigade Area	Segment Length (m)	Gates	Cardinia Shire Council notes: Required and Work Required	Compliant	Fire Risk Consultants: Comments/Scope of Work
	Bunyip Water Race Fire Access: From Thewlis Road to Dickie Road	Officer	Officer / Upper Beac	4700	Yes	Trach is required to allow vehicles in to stop down run of a fire in mild to moderate conditions and only access into area. Requires a little work (clearing trees) and locks to be made compatible.	No	Chain system not connected to post. Needs high prune track starting to wash out. Needs a fix up. At Dickie Rd end bush above aqueduct regenerating could become an entrapment situation need turn around and passing bay. Three gates at Dickie Rd. First gate from road has owners lock. Second gate key won't open. Third lock good but gate damaged. Needs slashing.
24723	Watson Rd: (1756-015) Fire Access Track from west of Driveway No.255 to East of Dway No. 145	Officer South	Officer	1,220	Yes	Track is required to save travel time and offers access to try to stop the down run of a fire South of the Freeway between Cardinia and McGregor Rds. Needs slashing, sign removed in middle of track and a little grading with rock at the ends.	No	Needs high prune slash rather than mulch. Fast water flowing at Cardinia Creek needs a load of rock to secure creek bed needs gate and lock at Cardinia Rd entrance.
	Hilltop Reserve: Fire access track from O'Neil Rd to Crestview Drive	Beaconsfield	Beaconsfield	375	Yes	Is required to access bush parkland at rear of houses. Needs a couple of trees trimmed but track OK.	No	Gates and locks ok. Needs high prune and remove wind damage tree. Remove wattle regrow this needs slashing.
24651	End Of Brennan Av: (1091-010) Gate to Cardinia Creek	Upper Beaconsfield	Upper Beaconsfield	386	Yes	Allows access across Creek to Harkaway. Saves 20 mins excess travel time in the event of a fire in the area where access is required both sides. Currently in good condition.	Yes	Track good. Creek very soft I would create rock crossing. Checked access from other side of creek and key doesn't open.
24662	Foott Rd: (1236-010) End (No. 169) To Cardinia Creek	Upper Beaconsfield	Upper Beaconsfield	160	Yes	Allow access to Stoney Creek to stop run of fire from West in Mod Conditions only. Is trafficable at the moment but not safe to enter in high fire danger days	Yes	Track is ok no work required. Have to cross Co need to establish creek crossing.
20658	Yackatoon Rd: (1788-005) Berglund Rd (Sth - Gate) to Fire Access Track (Gate)	Upper Beaconsfield	Upper Beaconsfield	1,200		Require access into paddocks to allow vehicle access to pull up a fire in paddock. Needs a little work to make trafficable, particularly on the South West end	Yes	No signs gate old but ok. Yackatoon Rd good gates just opens into paddock at house in picture. Working on road at time no more required.

Cardinia Shire Council - Fire Access Tracks Gates

AssetID	Description	Location	Brigade Area	Segment Length (m)	Gates	Cardinia Shire Council notes: Required and Work Required	Compliant	Fire Risk Consultants: Comments/Scope of Work
24693	McKenzie Rd: (1477-010) Fire Access Track from No.35 To Sth Driveway No.30	Upper Beaconsfield	Beaconsfield Upper	380	No	Allows access in behind housing estate to access fire and try to stop fire leaving the estate and spreading Easterly. Requires grading and slashing prior to FDP	No	No gate. Needs high prune. Flail mower both sides. Water crossing track. Is being used as driveway to cottage on 30. No gate at Tower Rd end.
51748	Appletree La: (1026-005) Pakenham Rd To Sth Fl No 70 (Fire Access)	Pakenham Upper	Pakenham Upper	842	Yes	Short cut access between Pakenham Rd and Appletree lane. Saves about 5-10 mins. OK at the moment but will need slashing as grass grown on track (not paddocks). Blackberries need clearing/removing at Creek crossing as it can be used for water point.	No	Lock good gate serviceable but has some damage. Needs a Mulcher to maintain width. Slasher and high prune at Pakenham Rd end. Padlock sequence at Pakenham Rd has meant gate can't be opened by key.
22149	Old Gembrook Rd: (1543-010) Fire Access Track Starting 290m Nth of Huxtable Rd	Pakenham Upper	Pakenham Upper	340	No	Used to stop fire getting to Pakenham Road and access bush area behind houses. Dry weather access only, could do with a grade and a little rock.	Yes	No gates, high prune, side slash, few large potholes needs a grade at bottom to get up other side not sure that I would use this to fight fire, rather go to rear of houses.
22074	Harvie Rd: (1307-005) Trevor Rd To End of Fire Access At No. 275 Driveway	Pakenham Upper	Pakenham Upper	1,100	Yes	Is required as it cuts 15 mins travel between Trevor and Harvey Rds. Requires clearing along edges (branches and undergrowth) for most of track and grading with rock and some trees may need to be removed. Possibly burn on West side if clearing not a practical option.	No	Gate from Harvie Rd. Gate and locks ok. Water tank, good turnaround. Runoffs need to be reopened. Needs a single mulch both sides. Some wind damage needs crosscut. Very tight for tanker without removal of two trees at bottom end. Hung tree that will fall on fence and stop tankers getting through. Bottom end damaged by water runs. Currently could not be used by tanker gate at bottom end good locks good.
62875	Old Gembrook Rd: (1543-030) Driveway No.300 To Pakenham Rd	Pakenham Upper	Pakenham Upper	440	No	Little value, does allow some access behind one house. Needs grading and to fill ruts created by water run-off if kept. Only approx. 100m on top of existing road feeding houses.	Yes	Road has been graded and needs no work at this time.

Cardinia Shire Council - Fire Access Tracks Gates

NOTE:

FIRE ACCESS TRACK:

Fire access roads should be planned to overcome deficiencies in the permanent road network. They should facilitate a rapid and concentrated response to areas where The application of these two principals will be critical to early containment of an outbreak of fire, and where road access is limited and off road operation of two wheel drive fire fighting vehicles would be difficult

SCOPE OF WORK COSTS FOR GROUP WORKS	
Yellow coded area – Cockatoo	\$ 28,174.00
Blue coded area – Avonsleigh, Emerald	\$ 11,910.00
Orange coded area – Gembrook, Pakenham, Maryknoll, Tonimbuk	\$ 10,345.00
Green coded area – Lang Lang	\$ 14,850.00
Pink coded area – Officer, Beaconsfield, Upper Beaconsfield, Pakenham Upper	\$ 45,070.00
TOTAL FOR ALL WORKS	\$ 110,349.00

Memorandum



To: Stewart Matulis, Coordinator Emergency Management, Cardinia Shire Council

Copy to: Mike Maypiece, Commander, Catchment Officer – Cardinia, CFA

From: Stephen Keating Commander, Risk Management, District 8 – CFA

Subject: McKenzie Road Fire Access Track

Date: 04 September 2020

Good afternoon Stuart.

At the request of Commander Mike Maypiece I am happy to provide you with some feedback regarding the proposed upgrade of McKenzie Fire Access Track, Upper Beaconsfield to the Metropolitan Regional Standard.

I attended this location today at Mike's request.

I have been made aware that there is some community concern regarding installation of gates as part of the completion of these works.

CFA District 8 agree that gates are an important component of the Metropolitan Regional Standard for Fire Access Tracks for several reasons including, allowing for uninhibited access during an emergency, to limit track damage and reduce the ongoing track maintenance and costs.

Fire Access Tracks are not considered as public roads, or for public use during emergencies. These assets are for the alternative access of fire appliances during an emergency. It is not appropriate for public vehicles to utilise these as they may impede CFA trucks travelling in the opposing direction. The track in this case, is narrow, and through a fuel loading higher than the surrounding area. There are many areas where passing oncoming vehicles cannot be achieved due to the vegetation, the boundary fence on the east side and areas with a high side cut into the natural slope. Currently, while the track is open to public use there is evidence of damage to the shoulder of the track on the southern end, at the natural drainage in the middle section of the track and also some washing out of the track surface on the incline to the north of the centre section of the track.

The local residents' fire plans should not include access to or use of this track to leave their properties. Especially during an emergency. The Tower Rd residents have much safer and appropriate access on roads build to and complying to council requirements for two-way traffic. The use of Sugarloaf Road to allow access and egress North and South to exit the area in the event of a fire should be the prescribed actions within their fire plans.

CFA strongly promotes the development of each household having and enacting a bushfire plan. CFA also advocates that residents leave early on days of fire danger that "trigger" that action within their plans.

In summary, CFA District 8 agrees with the implementation of the Metropolitan Regional Standard for Fire Access Tracks being implemented in this case.

cfa.vic.gov.au

https://cardiniavicgovau-my.sharepoint.com/personal/s_matulis_cardinia_vic_gov_au/Documents/Desktop/For USB/MFMPC/Fire Access Tracks/McKenzie RD/McKenzie Rd Upper Beac CFA Position.docx

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Memorandum



The public vehicle use of this track after the completed works falls outside of the standard, and CFA is supportive of the Cardinia Council in limiting this with the use of Fire Access Track gates in line with other areas within the council area.

CFA recommends all properties have a suitable bushfire plan in place, and that bushplan does not include the use of this Fire Access Track as part of their property access or egress.

CFA also strongly advocate the actions of leaving early on days of high fire danger, that is the best option for safe egress from your property. Leaving early would not require use of this track, and waiting until the local area is being impacted by fire would be too late to leave and placing yourself in greater danger, especially if overrun by bushfire in a vehicle.

Regards,

Stephen Keating