



Country Fire Authority July 2014

Position Paper Wire Rope Safety Barriers

Wire Rope Safety Barriers (WRSB) are progressively being installed on major arterial routes as a safety feature for motorists. The CFA recognises a balance must be made between emergency service operational activity and the safety of motorists to provide; safe and efficient means of operational activity for CFA brigades and safe carriageway for motorists.

CFA along with VicRoads has agreed that consultation at Regional level between VicRoads and CFA, in future installations of WRSBs, will be undertaken so that any issues can be resolved at the design and planning stage.

The following position and considerations are structured so that resolutions can be made by VicRoads and CFA to provide both; safe and efficient emergency service response and safe carriageway for motorists, through careful consideration to road use by emergency services during an emergency event (this includes during any bushfire event; on the road network; or potentially impacting on the road network) at the design and planning stage of establishing a WRSB.

Principles

The following good practice principles should be followed, when designing WRSB and considering fire safety objectives.

- Recognising the best roadside safety option for motorists and brigades.
- Roadside and near roadside vegetation fire risk considerations incorporated into design and planning stages of WRSB establishment.
- Emergency service response considerations incorporated into design and planning stages of WRSB establishment.
- Partnership between VicRoads and CFA brigades is essential.

Position

VicRoads to consult with CFA, at a Regional level, during the design and planning stage of WRSB installation in order to ensure that the following issues are considered:

Key Considerations

Access and Egress

- That the minimum 4 metre clearance from the carriageway to the WRSB on the left hand side; and a minimum 3 meters clearance on the right hand side on single direction divided carriageways and the desirable 4 meters on two way, two lane roads be upheld to allow minimum space for emergency vehicle parking (*Some CFA vehicles can be 3 metres wide, the additional 1 metre allows for operational access*).
- Minimum 3 metre clearance of vegetation and obstructions behind the WRSB. CFA regions to be consulted in relation to roadside vegetation fire hazard, to ensure potential

fire spread and fire impact on all road users (motorists and emergency services) has been considered. Particularly where:

- High fuel loads are adjacent to the WRSB.
- Fuel loads have the potential to increase if not maintained.
- Total WRSB length to not exceed 500/1000 metres in unbroken length. CFA supports; the desired length of 500m; and also VicRoads suggestion to generally adopt the 1000m length per barrier but no longer, to assist CFA access and egress during emergencies. 500m maximum lengths could prevent:
 - Dismantling: resultant delays in emergency response time caused by dismantling and costs of reinstallation.
 - Provides access to the road for emergency access during suppression activities for safe routes of escape should it be required.
 - Potential delays in emergency response time caused by travelling around long barrier lengths.
- Where multiple WRSBs are required along a stretch longer than 1000m a separation between barriers of at least 4m to be provided to allow emergency services vehicle access.
 - where one length may be required to overlap another, a minimum distance of 4m between parallel lengths of barriers for emergency vehicle access should be provided, in order to ensure that safe access is provided for emergency vehicles at all times
- Replacement and/or alteration of safety barriers – VicRoads are encouraged to discussed proposed alterations to safety barriers, in particular WRSB, with CFA Districts, with the aim of maximising access and egress points, as well as the ease of vegetation management potential.

Training

- Provision of appropriate training for brigades in dismantling WRSB. VicRoads will provide training sessions to interested brigades on dismantling WRSB. Requests will be directed through CFA Regional Offices, so that requests can be consolidated with the VicRoads Region. Consideration should be given to systems that do not take great lengths of time to dismantle, as this is not conducive to an emergency situation that requires rapid response. More specifically, this should occur where there is vegetation that CFA Regions consider a significant fire risk.
- CFA brigades will dismantle WRSB as a last resort, efforts will be taken to contacting VicRoads, emergency response, via Emergency Services Telecommunications Authority (ESTA) requesting support to dismantle.

VicRoads Reference material

- Wire Rope Safety Barrier Installation & Maintenance Guideline. August 2013
- Road Design Note 06-02B-September 2013