

Proposal for
Repurposing of Cawley's Road Bridge, Helensburgh as
a Multipurpose Bridge Servicing Community needs and
Wildlife Movement over the F6 Freeway for the
Protection of the Royal Reserves and the Wildlife of
Sydney and Wollongong.



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Bob Crombie
First National Park, Sutherland Shire Environment Centre

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1 Objectives

- To work with the government, relevant stakeholders and the community to develop a plan to reconstruct Cawley's Bridge across the F6 Freeway in Garawarra State Conservation Area into a multipurpose bridge serving the needs of stakeholders, and the needs of wildlife (flora and fauna) to move over the landscape adding considerable protection to the populations of species in Royal National Park, Heathcote National Park and Garawarra State Conservation Area (the Royal Reserves) and neighbouring lands especially in the times of catastrophic events such as large fires, and the accumulative impacts of an increasing number of adverse phenomena affecting these areas. It would assist in overcoming the major obstacle to wildlife movement of the F6 Freeway.
- To reconstruct Cawley's Rd bridge into Multipurpose Overpass on the F6 freeway.
- To repurpose Cawleys Road bridge over the F6 Freeway as a Multipurpose bridge
- To protect and better service the needs of the community
- To facilitate essential movement of wildlife in the Sydney Wollongong area
- To better protect and conserve the National and World Heritage values of the Royal Reserves – Royal National Park, Garawarra State Conservation Area and Heathcote National Park

2 Introduction

Throughout the world scientists and the community have come to recognise the need for wildlife to be able to move freely over the larger landscape for dispersal, finding mates, surviving, avoiding difficult conditions, and maintaining their populations at viable levels.

Royal National Park, Garawarra State Conservation Area and Heathcote National Park are small conservation reserves. They are becoming increasingly isolated from surrounding natural lands posing a great threat to the survival of much of their wildlife. Fires and roadkill within the reserves are major causes of wildlife death. Many species, including more than 15 vertebrate species, have already become locally extinct. Habitats are being cleared and barriers to the movement of wildlife are being constructed in vital wildlife movement corridors servicing these reserves and surrounding natural lands. Enhancing the capacity of wildlife to move across the landscape to and fro between the reserves and the surrounding natural lands would be of great benefit to safeguard against the many threats and protect the populations of many species.

The F6 Freeway acts as a major barrier to essential wildlife movement. Cawley's Road crosses the F6 Freeway at Helensburgh via a bridge, which is located within a vital Wildlife Movement Corridor servicing the Royal Reserves. Cawley's Road has been closed as a public road and is now kept and maintained as a service road for many agencies.

As an innovative and creative project Cawley's Road bridge across the F6 Freeway could be readily and cheaply redesigned and developed as a multi-purpose crossing of the F6 Freeway. This would keep its function as a service road and F6 crossing while at the same time adding to its function a wildlife crossing of the F6 Freeway by setting aside one side of the bridge and turning it into wildlife habitat that could be used by wildlife to cross the freeway. This

would contribute to overcoming the obstacle to wildlife movement presented by the F6 Freeway and contribute to the conservation of wildlife in Royal National Park.

3 Importance of the Royal Reserves

Royal National Park is *the premier national park of Australia* and was Australia's first national park dedicated in 1879. It is also the first national park in the world 'dedicated for the purpose of a national park.' It is one of the pioneer national parks of the world alongside Yellowstone and Yosemite National Parks in the USA.

Royal National Park was nationally recognised through *National Heritage listing* in 2006. This means it is protected through regulatory provisions of the national *Environment Protection and Biodiversity Conservation Act 1999*, and to managing the important identified values of the property on behalf of Australians.

A strongly supported campaign for *World Heritage Listing* of Royal National Park, Garawarra State Conservation Area and Heathcote National Park, the Royal Reserves, was begun in 2010. The NSW Government commissioned several reports from World Heritage experts to review the World Heritage values of the Royal Reserves. These reports concluded that a potential pathway for the inclusion of them on the Australian World Heritage Tentative List might be as part of a serial nomination, which could identify a collection of sites under a new theme – the evolution of protected areas and conservation philosophy. Yellowstone and Yosemite National Parks in the USA could be part of such a serial nomination. On the 29th May 2020 the NSW minister for Energy and Environment Matt Kean MP said, “ the process to establish a new theme and pursue a serial nomination would be complex. At this stage, the NSW Government is not proposing to take further steps to progress this, given the significant resources that would be involved in pursuing it.” In the meantime, further information has emerged that removes the obstacle of serial nomination with Yellowstone and Yosemite and allows the reserves to be Listed in their own right.

The Royal Reserves could be serially World Heritage listed with the Greater Blue Mountains World Heritage Area should it be further listed for ecological reasons. It would further provide ecological values particularly relating to its coastal location. The Royal Reserves have a significant and very diverse ecology including many rare species.

The wildlife of Sydney and Wollongong is very important.

4 The proposal

In the mid 1970s NPWS staff identified a number of wildlife movement corridors around Royal National Park, Heathcote National Park and Garawarra State Conservation Area necessary for the survival of their wildlife (See figure 4). Cawley's Bridge is right in the middle of one such wildlife movement corridor, which is severely compromised by the major obstacle created by the F6 Freeway. The use of Cawley's Road for public vehicular access has been closed and it is currently used only for various management purposes for public services. The bridge could readily be converted into a multipurpose one maintaining its current uses and at the same time providing a new means for wildlife to move across the landscape in this area and cross the major obstacle of the F6 Freeway. That the bridge is

already there means that the cost of building a new one would be avoided, and the public could achieve a valuable asset very quickly for a minimum of cost and thus add to the protection and viability of the World Heritage value reserves. It should be a simple task to make the reconstruction and maintain it, and it would not take long to implement with the right support.

One side of the road would be chosen to remain as is for the use of stakeholders. The area set aside should be more than enough to meet their needs and safety. The other side of the road would be properly constructed and landscaped to provide a protected habitat crossing of the freeway. Sheltered walkways could be built on the bridge rails for the use of arboreal species. These would be connected to nearby trees on the edges to allow the arboreal wildlife to safely access the crossing.

Cawley's Road bridge Wildlife Overpass of the F6 freeway would assist in the movement of Koalas between Royal National Park and the nationally significant Macarthur colony contributing to the viability of that colony.

The proposal could be carried out under existing Roads and Maritime Services works and funding.



Figure 1: Example of a bridge in Colorado, USA repurposed for wildlife Movement across a freeway.

5 Issues

Cawleys Road is:

- Owned by Transport for NSW (TfNSW)
- Managed by Wollongong Roads and Maritime Services
- A Category 1 Essential Trail in the NPWS District Fire Trail Register
- An important access and maintenance trail for a variety of purposes and used by a number of stakeholders

The F6 Freeway is:

- a major barrier to essential wildlife movement for its entire length and effectively isolates the Royal Reserves. It effectively constitutes a major threatening process along its length.

Cawleys Road bridge:

- is already there and does not need to be built. It can be repurposed cheaply, quickly, and easily
- Repurposing would effectively contribute to the amelioration of some of the issues related to wildlife movement across the barrier of the F6 Freeway and the conservation of wildlife in Sydney, Wollongong, and the National and World Heritage significant Royal Reserves.

The Royal Reserves:

- Have National and World Heritage significant cultural and conservation values
- Are small and isolated with serious upper catchment issues
- Have difficult barriers to wildlife movement to and from
- Subject to catastrophic influences – fire, drought, disease, pollution, isolation, etc
- We must design and build to allow wildlife to live with us everywhere we can
- This proposal should be incorporated into the Plan of Management for the Royal Reserves

The Minister for Energy and Environment, Matt Kean MP (MD20/5428, 15/09/20)

- Supported this proposal and invited it to be submitted through the Royal National Park, Heathcote National Park and Garawarra SCA Draft Plan of Management planning process currently underway
- “Cawleys Road is no longer a public road but remains an important link in the fire trail network of Garawarra State Conservation Area. The trail is classified as Essential Category 1 in the District Fire Trail Register, requiring a minimum standard of maintenance and clearance. To cater for Category 1 Fire Tankers. This access level would need to be maintained in any future changes and all relevant stakeholders such as emergency services would need to agree on any proposed changes.”

If the Cawleys Road bridge were repurposed as a multipurpose bridge serving the communities needs and for wildlife movement in the area:

- it would not be the end of the process. It would be only the beginning of the process to facilitate wildlife movement in the area and begin to better protect the National and World Heritage values of the Royal Reserves and the wildlife of Sydney and Wollongong.
- Further developments would need to be made to overcome the obstacle of the F6 Freeway to Wildlife Movement along its entire length

6 Location Maps of Cawley's Road bridge

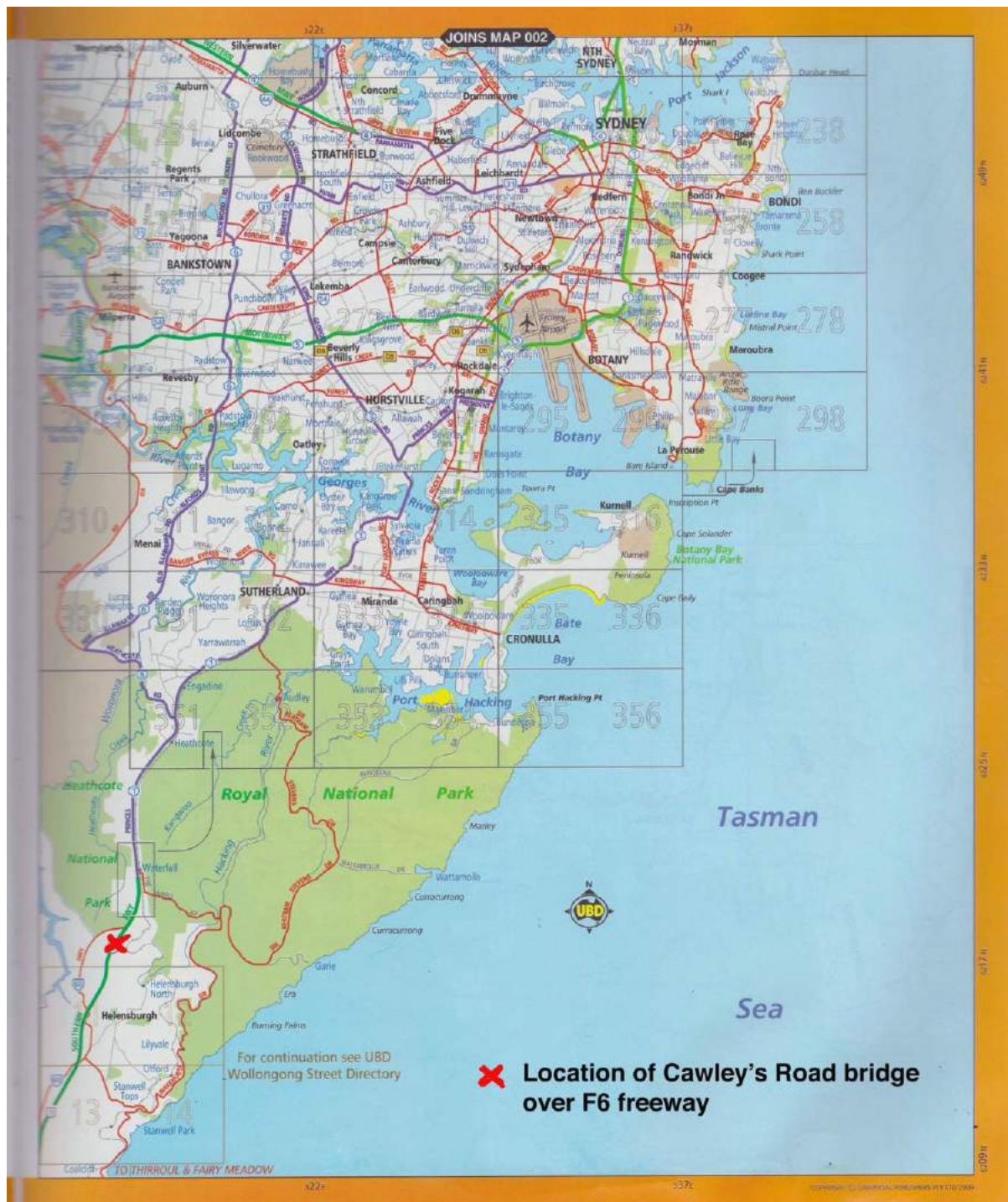


Figure 2: Location of Cawley's Road bridge. (UBD Directory).

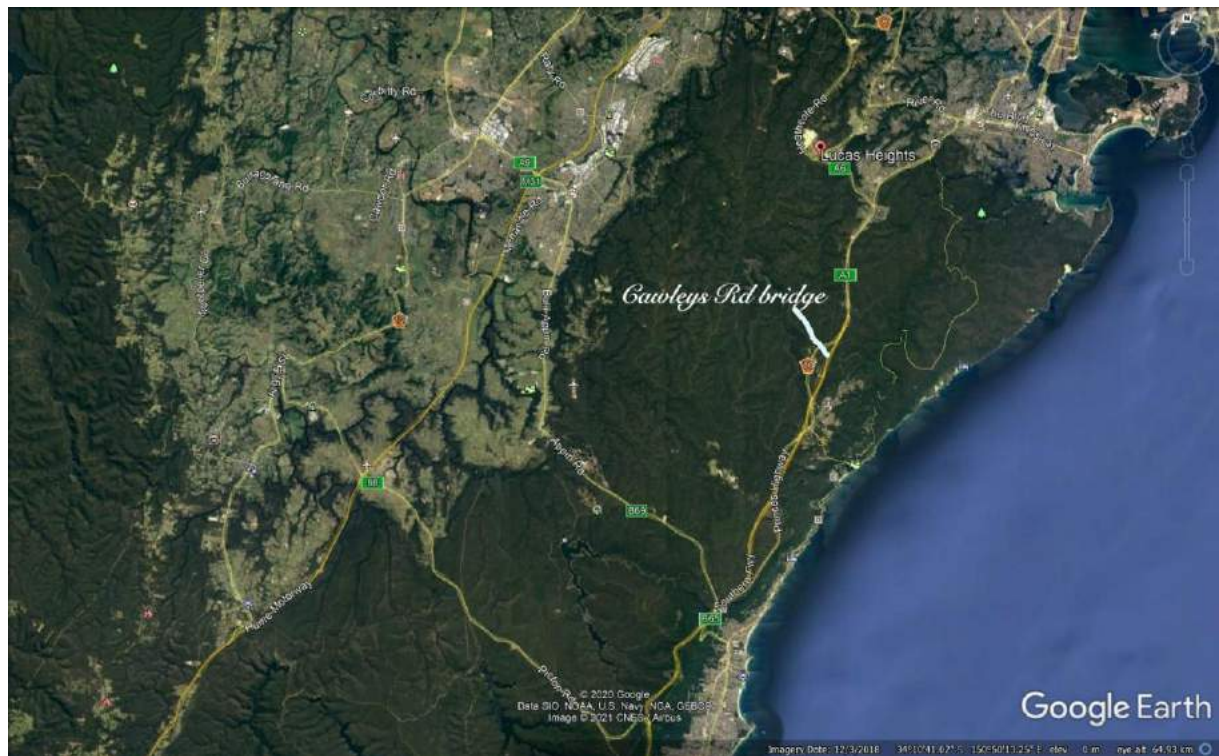


Figure 3: Location of Cawleys Road bridge (Google Earth image).

7 Map of Major Wildlife Movement Corridors serving the Royal Reserves and surrounding areas based on vegetation structure

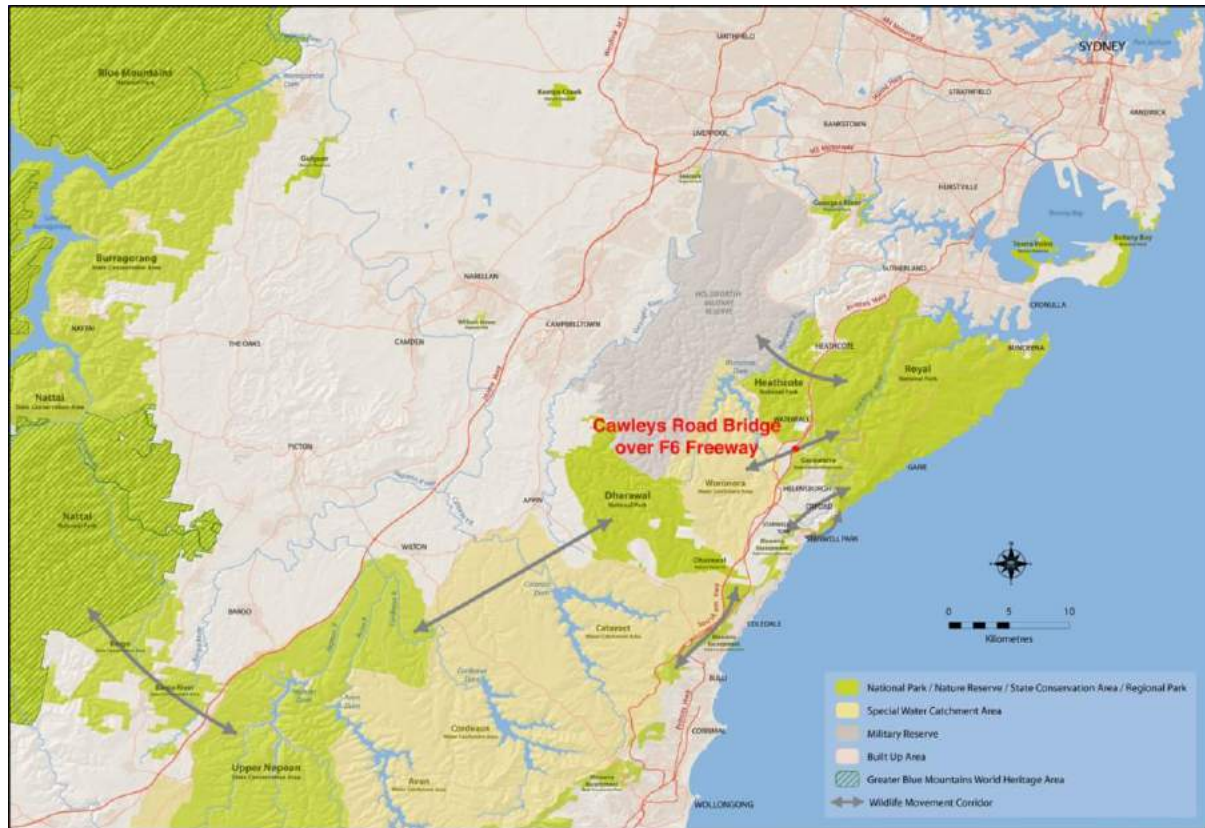


Figure 4: Large scale map of Wildlife Movement Corridors servicing the Royal Reserves.

8 Cawley's Road bridge images



Figure 5: Cawley's road bridge viewed from the east side. The vehicle is on the side that would be used for management purposes. The area to be set aside for landscaping and wildlife movement is approximated by the barrier.



Figure 6: Cawley's Road bridge viewed from the west side. The people are standing on the part for vehicular use.



Figure 7: Cawley's Road bridge view looking south from the bridge showing the great division of the natural landscape and obstacle to wildlife movement presented by the F6 freeway.

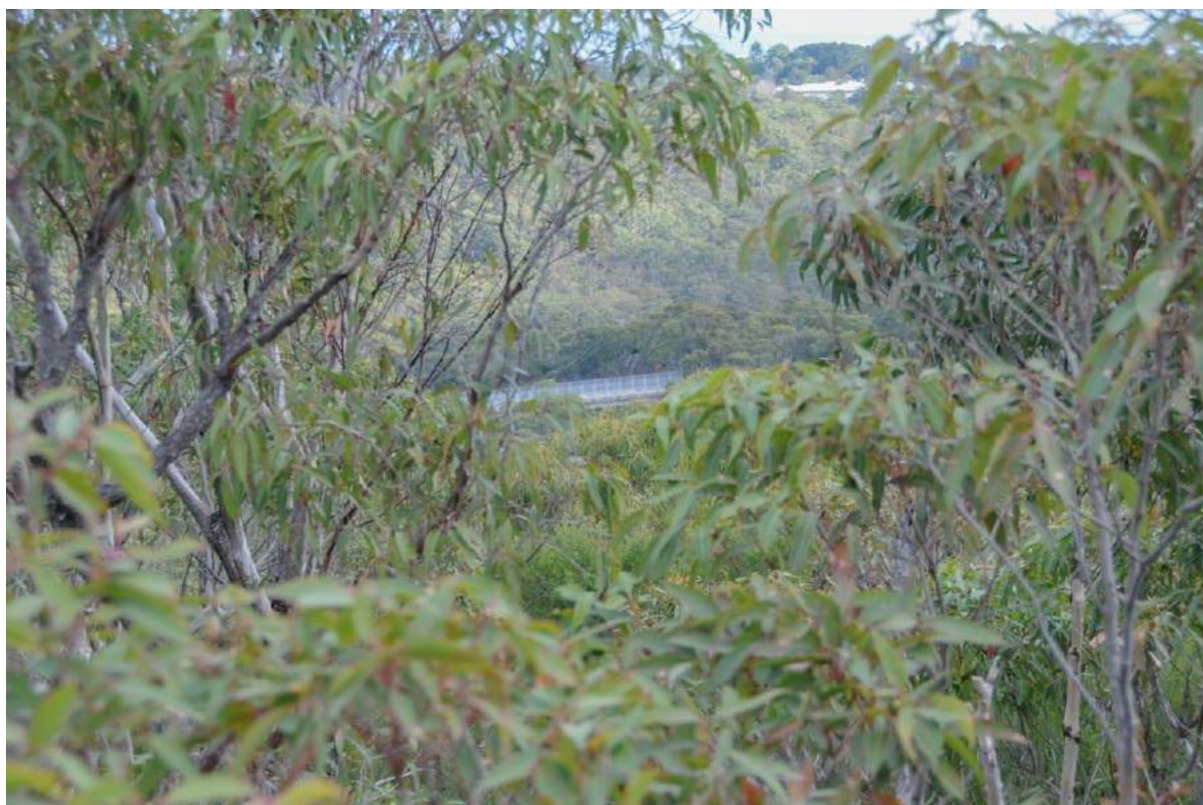


Figure 8: View of Cawley's Road bridge in the landscape from the northeast. Garrawarra Hospital can be seen in the background.

9 Similar projects developed to minimise the impact of constructions on wildlife and facilitate wildlife movement



Figure 9: The Maldon Dombarton Pt Kembla railway line construction in 1984 included special designs and constructions to minimise its impact on wildlife such as this wildlife underpass.



Figure 10: Wildlife wire bridges over the Pacific Highway south of Coffs Harbour.



Figure 11 Purpose built wildlife overpass over the Pacific Highway south of Coffs Harbour.

10 Stakeholders

All stakeholders would need to be informed of the proposal and their approval sought. The most important stakeholders to liaise with for such a proposal are:

Roads and Maritime Services
NSW National Parks and Wildlife Service
Wollongong City Council
NSW Rural Fire Service
NSW State Emergency Service
NSW Police Force
Sydney Rail
Sydney Water
Electricity Commission of NSW

11 Recommendations

- 1) Approval from important stakeholders be obtained for this project.
- 2) This proposal should be incorporated into the Plan of Management for Royal National Park, Heathcote National Park and Garawarra State Conservation Area.
- 3) Funding be granted for the planning and construction of Cawley's Road bridge as a multipurpose bridge serving the needs of the community for access and land management, and for the needs of wildlife to move over the landscape between the Royal Reserves and surrounding natural lands vi the Cawleys Road bridge.
- 4) Implementation of the plan and construction of the special bridge begin as soon as possible.