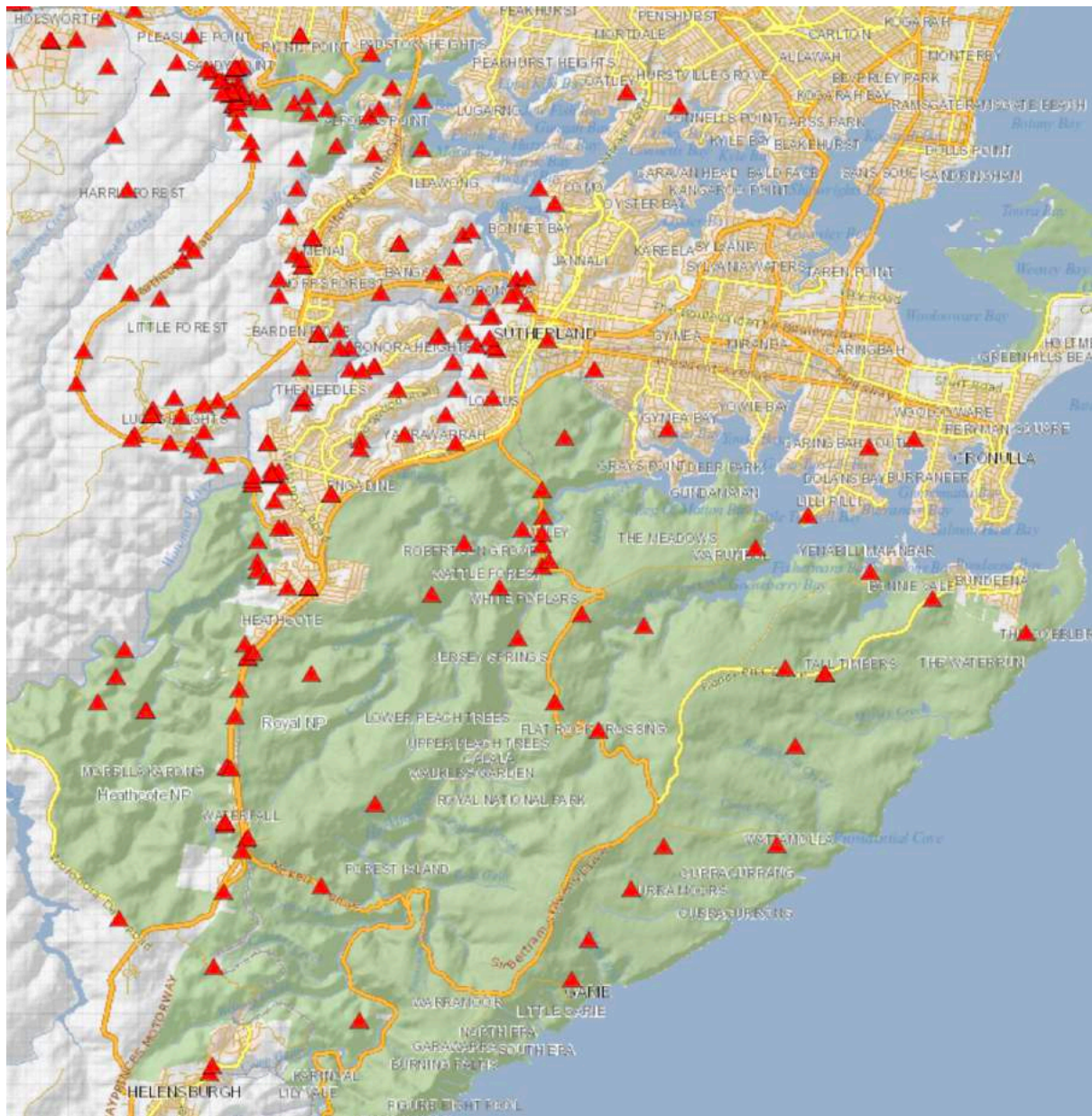


Recommendations for increased protection for koalas and resilient habitat in the Sutherland Shire, to Helensburgh



Koala sightings around Sutherland Shire to 13 July, 2020 - <http://www.bionet.nsw.gov.au/>

- Sutherland Shire Environment Centre
- National Parks Association Southern Sydney
- Oatley Flora and Fauna Conservation Society
- Georges River Environmental Alliance
- Sandy Point Resident's Association
- Friends of the Royal National Park

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The report from the NSW Legislative Council inquiry ***Koala populations and habitat in New South Wales*** has found koalas could become extinct in NSW by 2050 without urgent government intervention. The report recommends State government 'urgently prioritise the protection of koala habitat and corridors in the planning and implementation stages of urban growth areas'. The importance of koala corridors is noted, with 'safe connectivity between habitat areas' being 'essential for the survival of koalas, as they were not social animals and needed habitat to migrate and exchange genetic material. By moving on the ground through fragmented patches of habitat, koalas were also put at higher risk of being hit by vehicles or attacked by dogs.'

According to this report Councils can play a critical role in conserving koala habitat.

NSW Legislative Council report: *Koala populations & habitat in NSW*

Sutherland Shire Environment Centre, National Parks Association Southern Sydney, Friends of the Royal National Park, Georges River Environmental Alliance, Oatley Flora and Fauna Conservation Society have been calling for increased protection for native animal habitat, and in particular koala habitat, for some time now. Wildlife corridors are increasingly being recognised as critical to the survival of native species, allowing them to move freely over the landscape, find mates, build genetic diversity, escape difficult conditions, and maintain populations at viable levels.

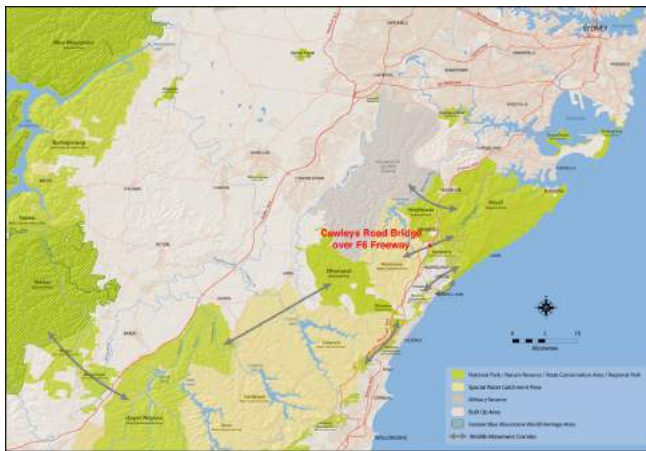
- Recommendation 3 of the Report specifically states 'That the NSW Government fund and support local councils to conserve koala habitat, including by identifying pockets of urban bushland to include in the State's protected area network.'
- Recommendation 12 of the Report states 'That the NSW Government ensure that the combination of underpasses, overpasses and exclusion fencing along roads is incorporated into both the retrofitting of existing infrastructure and new development in areas of known koala habitat.'
- Recommendation 14 of the Report states 'That the Roads and Maritimes Services allocate appropriate and sufficient funds for the ongoing maintenance and management of exclusion fencing along roads.'
- Recommendation 24 of the Report states 'That the NSW Government increase funding to local councils to support the implementation of local koala conservation initiatives.'
- Recommendation 27 of the Report states 'That all councils with koala populations be required to develop comprehensive koala plans of management in a timely manner.'
- Recommendation 29 of the Report states 'That the NSW Government increase resources to local councils to support them in conducting mapping required for comprehensive koala plans of management.'

The suggestions on the following pages are areas we believe the recommendations of the NSW Legislative Council Inquiry can be implemented in Sutherland Shire, and down to Helensburgh.

Four main locations are identified in this proposal - including "kill zones" along Heathcote Road: protective measures could be put in place at Deadman's Creek at Sandy Point; at the Lucas Heights precinct; and around Heathcote Road Bridge over the Woronora River. What is needed in these areas is not overly complicated, and could be done under existing Roads and Maritime funding and work arrangements.

Cawley's Bridge near Helensburgh crosses the F6 Freeway at Garawarra, is no longer used as a public road, but remains a service road for various agencies. This bridge could be easily be transformed to offer a critical wildlife corridor giving native animals safe passage from Heathcote National Park and the Woronora Special Area catchment through to the Garawarra State Conservation Area and on to the Royal National Park.

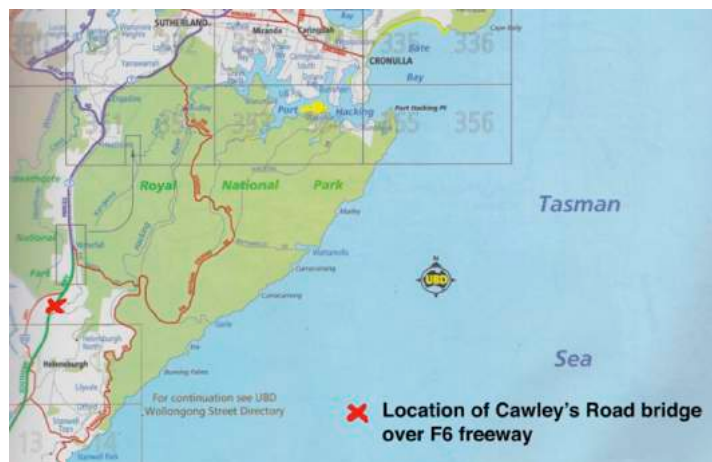
Proposed repurposing of Cawley's Bridge at Garrawarra as a wildlife corridor over the F6 Freeway



Cawley's Bridge has been recognised by the National Parks and Wildlife Service (NPWS) since the mid 1970s as a potential wildlife corridor. At that time NPWS identified a number of wildlife corridors around Royal National Park, Heathcote National Park and Garrawarra State Conservation Area as necessary for the wellbeing of animals.

The F6 Freeway acts as a major barrier to wildlife movement, severely limiting the ability of animals to move around these areas.

Cawley's bridge can potentially allow native animals safe passage over the F6 from Heathcote National Park and the Woronora Special Area catchment through to the Garrawarra State Conservation Area and on to the Royal National Park. The Royal National Park has become increasingly isolated from surrounding natural lands, with a number of species originally found in the Park now locally extinct. This loss was exacerbated by the catastrophic 1994 fires.



Repurposing Cawley's bridge into a wildlife overpass can be done for relatively minimal cost. One lane of the service road could be retained: it may only be necessary to convert one side of the bridge into suitable wildlife habitat crossing. Sheltered walkways could be built on the bridge rails for the use of arboreal species and connected to nearby trees to allow wildlife to safely access the crossing.



The Compton Road overpass in South-East Queensland provides evidence that Cawley's bridge could be successfully transformed in this manner.

Compton Road is a major east-west arterial road similar to the F6. In the 10 years since the completion of the land bridge there, only 3 mammals have been killed from motor vehicle accidents. Before this, 5 were killed on this road every month.

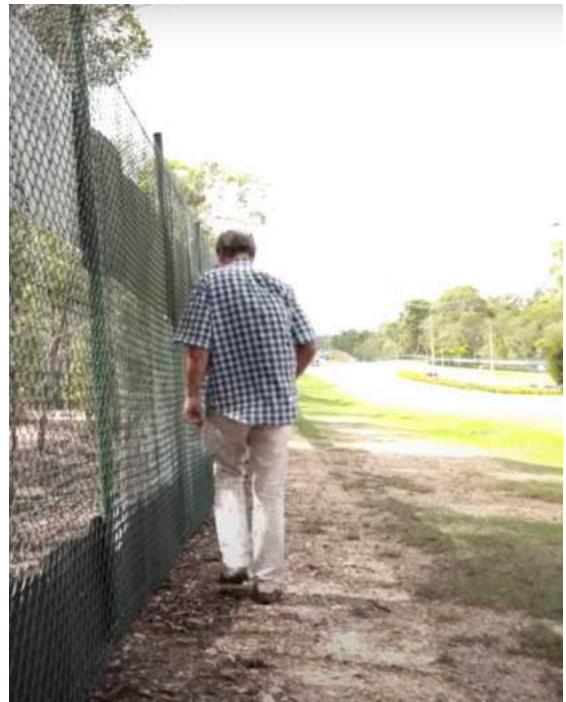


The Compton Road incorporates rope ladders for possums, poles for gliders and customised culverts to act as tunnels for small animals to pass beneath the road.

It is planted with locally sourced vegetation making a seamless connection to the surrounding forest. A fence has also been installed which acts as a funnel directing wildlife towards the crossing.

The Compton Road overpass is a model for what can be achieved with wildlife overpass crossings. The design has been duplicated across Europe, with seven overpasses in Sweden alone.

The fencing used in the project is reportedly now industry standard for roads incorporating wildlife management measures. It is 2.48m, much higher than regular road fencing, to stop wallabies and kangaroos from gaining easy access, and metal sheet strips deters climbing animals such as koalas and possums.



The project has apparently been embedded in a number of major road construction approvals across Australia.

* * *

Similar measures to what is proposed here with the fencing and rope ladders supplementing an underpass would be easy to implement along Heathcote Road at Sandy Point, the Lucas Heights Precinct, and Woronora Bridge with the forthcoming upgrades there.



Cawley's road bridge viewed from the east side



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.

Sandy Point – the Deadman’s Creek kill zone

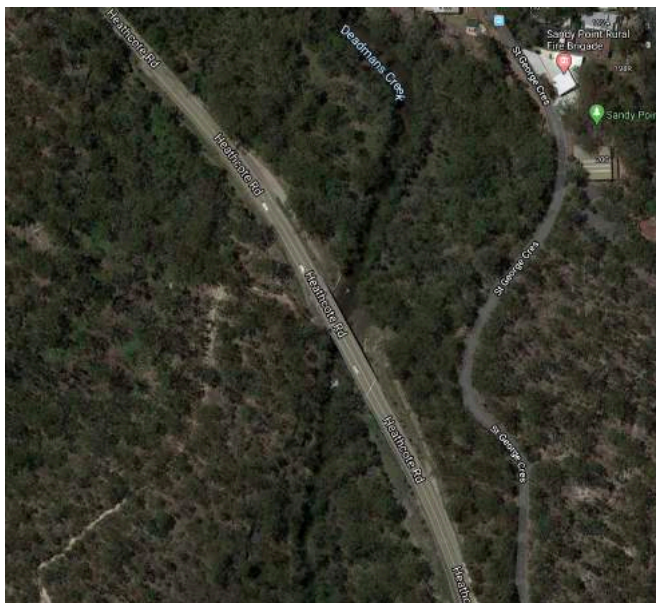
A significant number of koalas and other native species have been killed at Deadman’s Creek at Sandy Point, with confirmed reports of at least 6 koalas killed in 2018 alone¹.

The Holsworthy military training base provided a relatively safe habitat for koalas but this area was devastated by fire in 2018. Clear-felling of koala habitat at the Moorebank Intermodal Site and the relocation of the new Army Logistics site on Moorebank Rd has further jeopardised koala habitat around the area, forcing them to seek alternative food sources. The Appin, Mt Gilead and Wilton areas appear to be increasingly subject to urban expansion. Providing safe corridors away from these zones should be made a priority.



Koala sightings and roadkill at Sandy Point
Bionet 13 July, 2020: <http://www.bionet.nsw.gov.au/>

The recent parliamentary inquiry report recommended the government ‘urgently prioritise the protection of koala habitat and corridors in the planning and implementation stages of urban growth areas’.

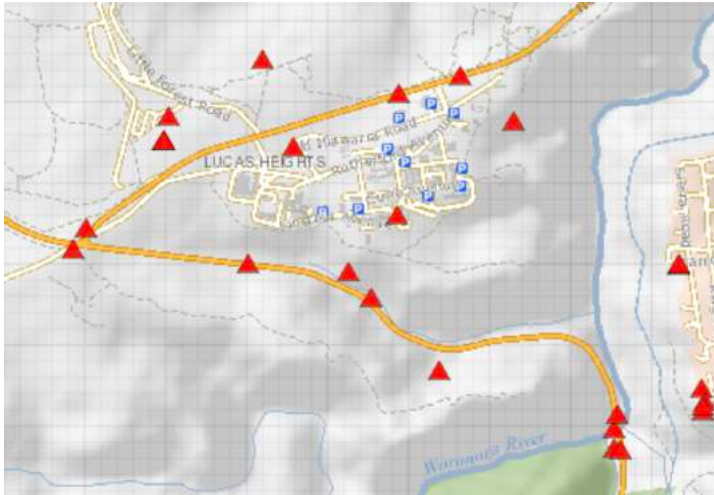


With the koala kill zones at Heathcote Road, flashing lights and signs warning motorists are inadequate to address the road kill, as is the currently existing fencing. An underpass already exists at the new bridge at Sandy Point which could be modified to allow safe passage for these koalas. As with Compton Road, directional fencing could be installed to act as a funnel directing wildlife towards this underpass. Rope ladders for possums and poles for gliders could be installed overhead. Local Aboriginal land holders to the east of the road and the Ministry of Defence on the western side may need to be consulted in order to

obtain permission for this fencing to be installed. The Department of Roads and Sutherland Shire Council would also need to approve this work.

¹ Six koalas killed on Heathcote Road in last year sparks call for action’, *The Leader*, 3 October, 2018
<https://www.theleader.com.au/story/5681392/outcry-over-koala-deaths-on-heathcote-road/>

Lucas Heights and Heathcote Road bridge at Woronora River



The New Illawarra Rd at Lucas Heights has unfortunately become another kill zone at the same time as new housing estates have been developed around the area, putting pressure on the existing koala population.

The Heathcote Road bridge over Woronora River upgrade is expected to result in road closures for at least 6 months. Regardless of what final decision is reached regarding the character of the

upgrades, the closure and associated roadwork offers an ideal time to install koala friendly wildlife crossing and fencing. These measures could be implemented at both the new Lucas Heights Innovation Precinct, and around the Heathcote Bridge across Woronora River.



We hope these proposals find merit with Councils at both Wollongong and Sutherland, and support. We need your assistance to drive these proposals toward implementation.

The devastating fires over the last year have wreaked a terrible toll on our native animal populations; in relation to koalas specifically the NSW Legislative Council inquiry has advised government urgently needs to assist in protecting remaining populations in order to conserve habitat. Councils can play a critical role in this process.

Further references – successful wildlife crossings

Saving Wildlife – the Compton Road effect, Griffith University

<https://www.griffith.edu.au/research/impact/compton-road-wildlife-corridor>

Wildlife Crossings supported by the NSW Roads and Maritime Services - 'Gliders take the high road: Study proves highway fauna crossings are being used by threatened species', ABS News, 19 July, 2018

<https://www.abc.net.au/news/2018-07-19/gliding-mammals-use-fauna-power-poles-to-cross-road-study-finds/9991528>

Wildlife Movement Solutions Brisbane City Council

<https://www.brisbane.qld.gov.au/clean-and-green/natural-environment-and-water/biodiversity-in-brisbane/wildlife-in-brisbane/wildlife-movement-solutions>

CSIRO Wildlife Research 30(5), 04 December 2003, 'Cutting the carnage: wildlife usage of road culverts in north-eastern New South Wales'

<https://www.publish.csiro.au/am/pdf/AM09007>

VicRoads Fauna Sensitive Road Design Guidelines 2012

https://www.vicroads.vic.gov.au/-/media/files/documents/planning-and-projects/environment/vicroads_n1571864_vicroads_fauna_sensitive_road_deisgn_guidelines_final.ashx