



Transport
Roads & Maritime
Services

SAFETY IMPROVEMENTS ON APPIN ROAD, GILEAD

Consultation Report

AUGUST 2014

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1.0 Introduction

1.1 Background

In March 2014, Transport for NSW completed a safety review for Appin Road between Copperfield Drive, Rosemeadow and the Princes Highway, Bulli Tops. The review was done in conjunction with NSW Police and Roads and Maritime Services. Following the review, Roads and Maritime carried out a detailed road safety investigation to inform and develop a program of work in an effort to improve the safety of road users on Appin Road.

Following recommendations from that investigation, Roads and Maritime will implement a program of road safety improvements along Appin Road and investigate possible future upgrades.

The immediate work, most of which has been completed, includes:

- Resurfacing the road on the southern section of Appin Road
- Upgrading signs, line marking and other delineation, including reflective line marking, raised retro-reflective pavement markers and roadside guide posts, along the entire route
- Installing a kerbside safety barrier on a bend west of the Loddon River Bridge in an effort to reduce the impact of southbound off-road crashes
- Assessing the use of mobile food and beverage vendors in rest areas in an effort to encourage drivers to take a break.

Future upgrades will be determined based on the road safety issues identified in the review. These are likely to include:

- Assessing the safety of current overtaking opportunities
- Investigating further improvements to address wet surface crashes
- Developing safe enforcement sites for both NSW Police and mobile speed cameras.

The detailed road safety investigation identified the section of road between Copperfield Drive, Rosemeadow and Rixon Road, Appin as having a high number of reported off-road crashes involving vehicles hitting trees close to the road. During the five year period from 1 July 2008 to 30 June 2013 there were 48 reported crashes along Appin Road between Copperfield Drive and Rixon Road. Of these crashes, 10 involved vehicles hitting trees close to the road. There had also been four fatal off-road crashes involving vehicles hitting trees between March 2001 and February 2006.

Based on this crash data, and the recommendations made in the road safety investigation, Roads and Maritime engaged an independent consultant to carry out a clear zone study of this section of Appin Road. The purpose of the study was to correlate the crash data analysis findings to site conditions and identify potential clear zone improvement strategies. A full clear zone management strategy was recommended consisting of short, medium and long-term improvement measures. As part of the short-term recommendations, Roads and Maritime developed a hazard-reduction proposal expected to improve the clear zone at certain locations along Appin Road between Copperfield Drive and Rixon Road.

1.2 The proposal

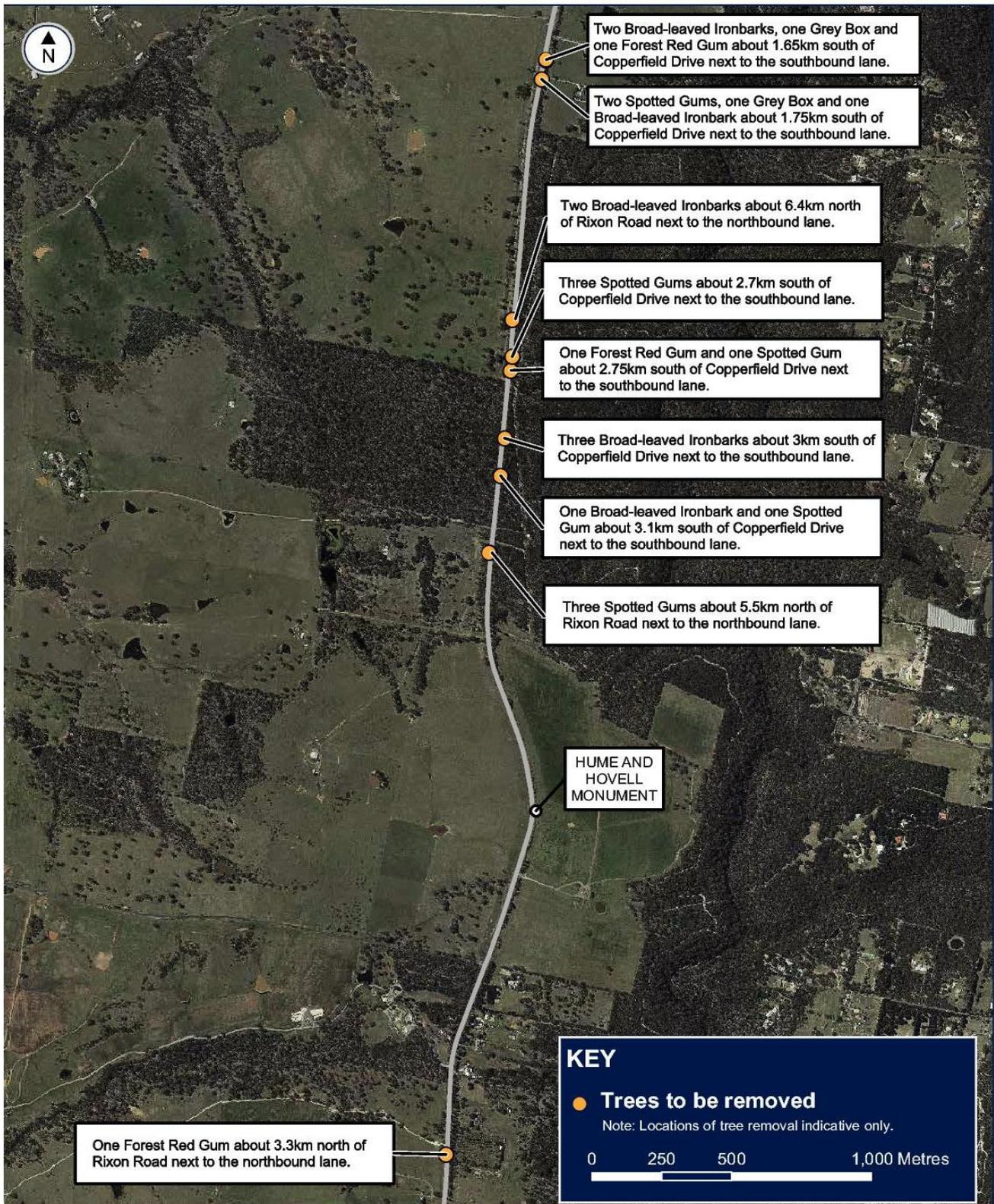
In an effort to reduce the number of roadside hazards and improve safety for motorists on Appin Road based on the recommended short-term strategies in the clear zone study, Roads and Maritime is proposing to remove 24 trees from both sides of Appin Road between 1.65km south of Copperfield Drive and 3.3km north of Rixon Road.

Trees to be removed along Appin Road



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Appin Road, between 1.65 km south of Copperfield Drive and 3.3 km north of Rixon Road, Gilead



Map data copyright (C) 2014 Roads and Maritime Services, NSW. Some spatial data courtesy of NSW Department of Lands.

Map showing the locations and species of the proposed 24 trees to be removed.

2.0 Consultation approach

Roads and Maritime met with Campbelltown City Council during 2013 and 2014 to discuss issues associated with vehicles hitting trees located close to the road along the section of Appin Road between Copperfield Drive and Rixon Road. Council was briefed on the recommended strategies in the clear zone study and Road and Maritime's short-term proposal. Councillors were advised of the proposal at this early stage of consultation. Council was supportive of the proposed clear zone improvements and agreed that further consultation with residents and business operators would be beneficial.

On 13 June 2014, Roads and Maritime invited the community to provide feedback on the proposal to remove 24 trees along Appin Road. Approximately 2900 community updates detailing the proposed safety improvements were distributed to residents and businesses within the local area of Gilead and the surrounding areas of Rosemeadow, St Helens Park and Appin. The community update was also distributed to key stakeholders including the Member for Wollondilly Jai Rowell, NSW Police, NSW State Emergency Service, Rural Fire Service and Wollondilly Shire Council. Posters providing details of the proposal were displayed at Campbelltown City Council Civic Centre and Campbelltown City Library. Information was also published on Roads and Maritime's website and a media release was issued by Roads and Maritime on 12 June 2014. The closing date for comments was 27 June 2014.

3.0 Consultation report

3.1 Overview

Roads and Maritime received 22 comments from residents and business operators in response to the proposed tree removal. The feedback indicated community support for the proposed tree removal along Appin Road on the grounds of improved road safety.

The majority of comments received were generally supportive of the proposal, although some concerns were raised about the proposed safety measures. On 27 June 2014, Roads and Maritime received a petition from residents and business operators objecting to the proposal. Their concerns mainly related to the removal of these trees having a direct impact upon the movement of native wildlife crossing above Appin Road through the trees.

The following issues and concerns were raised during the consultation process.

3.2 Feedback summary and Roads and Maritime response

Concerns the proposal to remove 24 trees is insufficient to improve the clear zone and obtain wider road shoulders. It was recommended that a larger volume of trees be removed to achieve a greater road safety improvement.

The proposed removal of 24 trees on both sides of Appin Road, between 1.65km south of Copperfield Drive and 3.3km north of Rixon Road, forms part of the short-term recommendations made by an independent consultant who conducted a clear zone study of Appin Road. The 24 trees were identified by the independent consultant as high risk. The short-term recommendations in the clear zone study say that removing these trees is expected to provide a road safety benefit.

The medium-term recommendations include removing a larger volume of trees from both sides of Appin Road between Copperfield Drive and Rixon Road. Wider roadside shoulders and improvements to the existing table drains are also included in these recommendations and these medium-term recommendations are subject to further investigation and consultation with the local community.

Concern that the current 80km/h speed limit along Appin Road from about 340 metres south of the Appin Valley roundabout, in particular on the approach to this roundabout, is too high. It was recommended the 50km/h speed zone be extended further north of the Appin Valley roundabout.

Roads and Maritime is carrying out a review of the speed zone on Appin Road from the newly constructed Appin Valley roundabout to about 340m south of the roundabout. This review is expected to be completed by the end of August. Current traffic volume data is being collected as part of the review.

As an immediate measure, Roads and Maritime will install an enhanced warning sign for southbound motorists to ensure they are provided with greater warning of the approaching roundabout. This is expected to assist in reducing the speed of motorists approaching the roundabout. Roads and Maritime will also install flexible lane dividers on the centreline of the northbound approach to the newly constructed Appin Valley roundabout.

Concerns that the current 80km/h speed limit along Appin Road between 300 metres south of Copperfield Drive and 330 metres north of Rixon Road is too high. It was recommended that the speed limit be lowered and both fixed and mobile speed cameras should be considered for this length of road.

In NSW, Roads and Maritime is responsible for setting and signposting safe and appropriate speed limits in accordance with the NSW Speed Zoning Guidelines. Speed limits are determined by a number of factors including road geometry, surrounding conditions, road use, adjacent development, vehicle types and volumes, crash history and the number of access points along the route.

In March 2014, Roads and Maritime reviewed the speed limits on Appin Road between Copperfield Drive and the boundary between the Campbelltown and Wollondilly local government areas. The 80 km/h speed limit is considered appropriate at this time; however Roads and Maritime will continue to monitor this section of road for any changes in the above factors. Appin Road is a state road which links Campbelltown and Wollongong and is the major through route between these towns. It also provides local access for the communities from Campbelltown and Appin. The current 80 km/h speed limit is considered appropriate, given the need to balance these two functions. However Roads and Maritime is reviewing the speed zone between the Appin Valley roundabout and 340m south of the roundabout.

The Fixed Speed Camera Program is not being expanded at this time but Roads and Maritime has assessed this section of Appin Road for Mobile Speed Camera enforcement. Sites for Mobile Speed Cameras are chosen using strict criteria developed by the NSW Centre for Road Safety, which includes road type, condition, surrounding environment, sight distance, road alignment and frequency of driveway access. The assessment identified one possible location for a Mobile Speed Camera along this section of Appin Road, however this requires further investigation. This section of Appin Road between Copperfield Drive and Rixon Road has been submitted to the Safer Roads NSW website for consideration in any future rollouts of the Mobile Speed Camera Program.

Concern that the condition of Appin Road is sub-standard and contributing to crashes. It was recommended that safety barriers be considered and road conditions improved.

There is no clear evidence from analysis of crash data to suggest a majority of crashes on Appin Road happen because of the road condition. Of the 48 reported crashes (over the five year period from 1 July 2008 to 30 June 2013) along Appin Road between Copperfield Drive and Rixon Road, only nine crashes happened in wet surface conditions. Roads and Maritime recently carried out isolated road maintenance work along this section of Appin Road and has a forward maintenance program (subject to future funding availability) for road resurfacing and strengthening work for the section of road between 2km and 3.4km south of Copperfield Drive.

Installing safety barriers along Appin Road between Copperfield Drive and the boundary between the Campbelltown and Wollondilly local government areas has been investigated by Roads and Maritime. The investigation revealed there are a number of trees close to the edgelines on both sides of Appin Road, and insufficient space is available for a barrier between the edgelines and the trees. Similarly, if central safety barriers were to be installed along this length of Appin Road, the road would have to be widened and a larger volume of trees removed. This would require further detailed investigation and thorough environmental assessment. Due to funding limitations, this option is not favoured at this time.

Concern that the combination of coal dust and rain along Appin Road, south of Appin Township, is contributing to a slippery road surface and leading to an increase in wet surface crashes.

While the Appin Road safety review suggested the effect of coal on the road and line marking needs to be better understood, analysis of reported crash data has not identified any crash trends which can be directly attributed to coal dust in this area. However, since the release of the safety review in March this year, Roads and Maritime has delivered a number of immediate improvements south of Appin Township including more than \$900,000 on resurfacing work, sign upgrades, line marking upgrades and installing a kerbside safety barrier west of Cataract. Roads and Maritime is in the preliminary stages of detailed investigations into larger scale, higher cost

safety improvements focused on the four crash clusters between Appin and Bulli Tops. The upgrades are likely to include clear zone improvements, installing safety barriers, using vehicle-activated signs, lighting improvements, additional speed enforcement options and more resurfacing works.

Concern that the proposed tree removal will not provide any road safety benefit. It was suggested the reported crashes along Appin Road, between Copperfield Drive and Rixon Road, were the result of speeding, alcohol, driver inexperience and/or driver frustration. It was recommended that police enforcement be enhanced and both fixed and mobile speed cameras should be considered along this length of road.

Of the 48 reported crashes over the five year period from 1 July 2008 to 30 June 2013 along Appin Road between Copperfield Drive and Rixon Road, speeding was reported as a factor on five occasions and alcohol as a factor on two occasions. Combined, this represents less than 15% of the total reported crashes.

Roads and Maritime acknowledges some crashes do occur as a result of driver error such as speeding, alcohol consumption and driver inexperience. In addition, Roads and Maritime has not indicated the proposed trees along Appin Road are the sole cause of these crashes. The primary purpose of the proposed tree removal is to create a more forgiving road environment for motorists and reduce the severity of crashes involving vehicles hitting roadside hazards.

As discussed above, the Fixed Speed Camera Program is not being expanded at this time; however Roads and Maritime assessed this length for Mobile Speed Camera enforcement and found one possible location for a Mobile Speed Camera that requires further investigation. This section of Appin Road has also been added to the Safer Roads NSW website for consideration in any future rollouts of the Mobile Speed Camera Program.

Roads and Maritime has asked NSW Police to consider additional enforcement along Appin Road. The enforcement of traffic laws including speeding or disobeying road rules remains a primary responsibility of the NSW Police. It is recommended that the community contact the Campbelltown Local Area Command on 02 4620 1199, who will determine whether targeted enforcement activities may be appropriate.

Concerns that there are an insufficient number of overtaking lanes in both directions on Appin Road between Copperfield Drive and Rixon Road.

There are two southbound overtaking lanes and five northbound overtaking opportunities on Appin Road between Copperfield Drive and Rixon Road. The warrant for the installation of overtaking lanes is based on traffic volumes, percentage of slow moving vehicles, hourly volume of traffic and the availability of overtaking opportunities on adjoining sections of roadway. Roads and Maritime does not have any current plans to install additional overtaking lanes along this section of Appin Road, however it will continue to monitor the effectiveness of these overtaking opportunities.

Concerns that the existing capacity of Appin Road will not meet future demand with the number of new and upcoming residential subdivisions. It was recommended that Appin Road be upgraded to a dual carriageway with two lanes in each direction.

The average traffic volume along Appin Road is about 10,000 vehicles per day. Roads and Maritime acknowledges an increasing number of vehicles will use this route as the number of nearby residential properties increases. However, this is not expected to be a significant increase that would trigger an immediate upgrade to a dual carriageway with two lanes in each direction. Based on the above, Roads and Maritime does not have any current plans to increase capacity on Appin Road at this point in time.

Concerns that the proposed removal of 24 trees will affect the heritage significance of Appin Road as one of the earliest road alignments in the early colony of Sydney.

The historic character of Appin Road is expressed through:

- The original alignment, which is still in use after two centuries
- The well-wooded roadsides, with substantial mature trees and complex understorey
- Open fields or low-level sparse development on the roadside blocks, visible through the tree screen.

There is no evidence of major road-making in the form of cutting and benching, retaining walls, survival of earlier pavement or major roadside drainage. The overall character is of a long-established road with a modern surface, but essentially having the character it had decades ago, or even more than a century ago.

Roads and Maritime's Heritage Specialist considers the proposal to remove 24 trees will not adversely affect the appreciation or survival of these heritage values across the length of Appin Road between Copperfield Drive and Rixon Road. The character of the road will remain essentially unchanged as the 24 trees represent a small proportion of the total population.

Concerns that the proposed removal of 24 trees will have an impact on the natural environment and movement of native wildlife, especially koalas crossing above Appin Road. It was recommended this funding instead be invested in driver behaviour and education programs.

Following short-term recommendations in the clear zone study, Roads and Maritime arranged for an ecological assessment to be completed. The findings of the ecological assessment showed the proposed activity would not have a significant impact on the natural environment. Some of the trees proposed to be removed were identified as potential habitat trees. However, these trees would be inspected by an ecologist before being disturbed, in accordance with Roads and Maritime Biodiversity Guidelines.

The ecological assessment also showed the proposal would not impact the native fauna species nor would it further isolate habitat for native wildlife. The report concluded the tree removal would not have an impact on the long-term survival or potential east-west movement of koalas in this area.

Campbelltown City Council employs a Road Safety Officer (RSO) to implement behavioural road safety education programs in an effort to improve driver behaviour. The position is half-funded by Roads and Maritime. Currently, there is an approved three year action plan from 2014 to 2017 for Campbelltown City Council's RSO which includes the following programs:

- Local Behavioural Speed Reduction project
- Drink Drive project implemented through the Campbelltown Liquor Accord
- Traffic Offenders Intervention program
- Log Book Run project targeting novice drivers
- Graduated Licensing program targeting supervisors of learner drivers
- Child Restraint checking days
- Road Safety Education sessions for seniors including pedestrian safety education
- Pedal Cycle project
- Safety Outside Schools project.

In addition, Campbelltown, Macquarie Fields and Camden Local Area Commands run an enhanced enforcement program called Operation Benedict. This program provides additional targeted enforcement for identified local road safety issues. Appin Road is one of the targeted

enhanced enforcement areas. This program is funded by Transport for NSW and is supported by Roads and Maritime.

Concern that, due to the presence of audio-tactile edgelines on Appin Road, motorists are driving closer to oncoming traffic and, as a result, over-correcting, veering off-road and impacting trees.

The main purpose of audio-tactile line marking, in this instance on the edgelines of Appin Road, is to provide a warning sound to motorists in the event of them veering left outside their lane, especially when encountering fatigue. Based on site inspections and observations, there is no clear evidence to suggest motorists are veering away from audio-tactile edgelines and driving closer to oncoming traffic. Furthermore, due to a number of site constraints including the large volume of trees close to the edgelines and narrow roadside shoulders, there is limited opportunity to widen existing lanes and create a wider separation between opposing traffic. Similarly, Roads and Maritime strongly recommends the audio-tactile edgelines along Appin Road are kept, as they have proven to be an effective road safety treatment on rural roads.

Concern that the lack of street lighting along Appin Road is contributing to a majority of the reported crashes. It was recommended that street lighting be installed along the entire length of Appin Road.

The section of Appin Road between Copperfield Drive and Rixon Road is a rural road and generally, street lighting is not provided on rural roads. Due to the dense tree population, a significantly larger number of trees would either need to be heavily trimmed or removed for street lighting to be effective. There may also be issues associated with local residents not supporting the glow street lights would create in this rural setting.

Furthermore, the delineation along this section of road includes reflective linemarking, raised retro-reflective pavement markers and roadside guideposts. A recent night inspection conducted along this section of Appin Road showed existing types of delineation are providing the appropriate guidance to motorists when driving at night.

Decision

Roads and Maritime has considered the concerns raised by stakeholders and the community about road safety along Appin Road throughout the consultation and engagement process. Based on the review of community concerns, knowledge of roadside hazards present in the clear zone and a review of the recorded history of off-road crashes where vehicles have impacted trees close to the road, Roads and Maritime will proceed with the removal of the 24 trees.

Next steps

Roads and Maritime will advise the community of the outcomes of the consultation process as well as the expected start date for the removal of the trees.