New England Highway bypass at Scone
Submissions report
April 2016
Executive summary

This submissions report relates to the review of environmental factors (REF) prepared for the proposed upgrade of the New England Highway bypass at Scone and should be read in conjunction with that document.

Roads and Maritime Services propose to upgrade the New England Highway to bypass Scone (the proposal). The proposal would include building a two lane highway bypass to the west of Scone. The proposal includes about four kilometres of new two lane highway with at-grade connections south and north of Scone, two overbridges, crossing of Figtree Creek, and an at-grade connection at St Aubins Street.

The New England Highway is a major freight and commuter route forming part of the Sydney to Brisbane corridor of the National Land Transport Network and the primary route connecting the Upper Hunter with Maitland and Newcastle. The highway passes through Scone, forms the main road access through the town and is the main street through the Scone central business district.

Bypassing Scone aligns with the NSW Long Term Transport Master Plan’s focus on providing essential access for regional NSW by providing town bypasses to:

- Improve travel and amenity within towns
- Reduce delays caused to freight traffic
- Increase safety
- Improve urban amenity through reduced noise, lower emissions and less traffic.

In addition to the highway bypass, Roads and Maritime is planning to construct a rail bridge in Scone. This bridge will be subject to a separate environmental assessment process and will be carried out as a later stage.

The key features of the proposal as presented in the REF include:

- At-grade connections south and north of Scone with the existing and realigned New England Highway
- Overbridge at the Great Northern Railway to the south of Scone
- Overbridge about 540 metres long commencing on the southern side of Parsons Gully and extending over Kingdon and Liverpool streets
- Crossing of Figtree Creek
- At-grade connection at St Aubins Street.

The REF was carried out to assess the environmental impact of the proposal. The REF was placed on public display between 15 December 2015 and 19 February 2016.

This REF submissions report summarises the issues raised and provides responses to each issue. A total of 211 submissions were received in response to the display of the REF. Of the 211 submissions:

- 16 (seven per cent) clearly stated support for the proposal
- 10 (five per cent) clearly stated an objection to the proposal
- 171 (81 per cent) stated some form of change to one or more elements of the proposal
- 14 (seven per cent) were not definitive.

The main issues raised in submissions related to:

- Lack of connectivity at the northern and southern ends
- Proposed speed limit
- Loss of passing trade
- Traffic and access impacts
- Proposed St Aubins Street intersection
- Alternatives considered
- Emergency services.
As a result of community feedback during the REF display, the following changes have been made to the proposal:

- Revised access arrangement for private property (St Aubins property)
- Southern intersection - modified to provide a grade separation (underpass) for vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic
- Revised golf course access provided via an under bridge over Parsons Gully
- St Aubins Street intersection – separation of south bound left turn lane from the main through lane. This will improve sight lines for vehicles entering the bypass from St Aubins Street
- Widening in Aberdeen Street to assist left turn into St Aubins Street
- Refined access arrangements to private property (Hunter Valley Meats)
- Travelling stock route realignment and provision of new underpass
- Northern intersection - modified to provide right turn facilities for northbound bypass traffic. The northern intersection arrangement includes a revised turnaround area
- Altered access to private property on eastern side of the existing New England Highway.

In response to the submissions received, Roads and Maritime carried out additional assessments to consider the potential impact of the design refinements and to address issues raised in submissions. These additional assessments were:

- Flying-fox surveys – targeted surveys were carried out following reports a seasonal Grey-headed Flying-fox camp was near the Scone Golf Club
- Vegetation impact – due to the design refinements the proposal would result in a minor increase in clearing of vegetation
- Socio-economic effects – to assess the potential for loss of passing trade additional assessments in the form of business interviews, stopper surveys and traffic origin-destination surveys were carried out
- Property impact (private and community facilities), including landholder and key user group interviews to further assess potential impact associated with property acquisition
- Agricultural impact including landholder interviews to further assess potential impact on agricultural activities
- Noise modelling – to assess the potential impact due to the design changes
- Flood modelling – to assess the potential impact due to the design changes
- Land use impact – due to the design refinements the proposal would result in a minor increase in land acquisition.

After consideration of the submissions received, during the REF display and additional assessments, some changes have been made to the proposal including changes to proposed safeguards and management measures.

In summary, the proposal as described in the REF including refinements documented in this submissions report, meet the proposal objectives, while minimising environmental impact and appropriately considering community issues. Although the proposal would still result in environmental impact, on balance the proposal best meets the proposal objectives and is justified.
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1 Introduction and background

1.1 Purpose

This submissions report relates to the review of environmental factors (REF) prepared for the New England Highway bypass at Scone (the proposal), and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the proposal and the REF were received by Roads and Maritime. The submissions report summarises the issues raised and provides responses to each issue (Section 2). It details investigations carried out since finalisation of the REF (Section 3), describes and assesses the environmental impact of changes to the proposal (Section 4), and identifies new or revised environmental management measures (Section 5).

1.2 The proposal

The bypass proposal is located to the west of the town of Scone and includes about four kilometres of new two lane highway (refer to Figure 1.1). The speed limit along the Scone bypass would be 100 kilometres per hour. The current highway through town (known locally as Kelly Street) has a speed limit of 50 kilometres per hour.

The key features of the proposal as presented in the REF include:

- At-grade connections south and north of Scone with the existing and realigned New England Highway
- Overbridge at the Great Northern Railway to the south of Scone
- Overbridge about 540 metres long commencing on the southern side of Parsons Gully and extending over Kingdon and Liverpool streets
- Crossing of Figtree Creek
- At-grade connection at St Aubins Street.

A more detailed description of the proposal is found in the New England Highway bypass at Scone REF prepared by Roads and Maritime in December 2015.

The proposal has been developed to a concept design level and would be further refined during the detailed design phase.

Subject to approval, it is anticipated construction would start in 2017 and would take about two years to complete, weather permitting.

As a result of submissions received during the REF display the following changes have been made to the proposal (refer to Figure 1.2 and Section 4):

- Revised access arrangement for private property (St Aubins property)
- Southern intersection - modified to provide a grade separation (underpass) for vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic
- Revised golf course access provided via an under bridge over Parsons Gully
- St Aubins Street intersection – separation of south bound left turn lane from the main through lane. This will improve sight lines for vehicles entering the bypass from St Aubins Street
- Widening in Aberdeen Street to assist left turn into St Aubins Street
- Altered access arrangements to private property
- Travelling stock route realignment and provision of new underpass
- Northern intersection - has been modified to provide right turn facilities for northbound bypass traffic. The northern intersection arrangement includes a revised turnaround area
- Altered access to private property on eastern side of the existing New England Highway.
LEGEND

Proposal site
Railway
Watercourse
Underpass including off and on load ramps to assist access to and from Scone.

Revised access arrangement for private property.

LEGEND
- Proposal site
- Watercourse
- Cadastre
- Railway
- Design features
  - Median
  - Pavement
  - Private driveway
  - Bridge
  - Earthworks

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56
Paper Size A4

Golf course access under bridge over Parsons Gully.
Southbound left turn lane moved further from intersection.

Widening in Aberdeen Street to assist left turn into St Aubins Street.
Revised access arrangement for private property.

Revised turn around area.

Northbound right turn lane added to intersection arrangement.

Access arrangement for private property.

Culvert under bypass for travelling stock route.

LEGEND

Proposal site

Design features

- Private driveway
- Travelling Stock Route
- Existing travelling Stock Route

Earthworks

Median

Pavement

Cadastre

Watercourse

SHEET INDEX

to Tamworth

MAYBE DIVA STREET

Figure 1.2

Roads and Maritime Services
New England Highway Bypass at Scone
Submissions Report
The Proposal
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Paper Size A4

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56
1.3 REF display

Roads and Maritime prepared a REF to assess the environmental impact of the proposed work. The REF was publically displayed for 66 days between 15 December 2015 and 19 February 2016 at the Upper Hunter Shire Council office, 135 Liverpool Street, Scone. The REF was placed on the Roads and Maritime website and made available for download.

The display location and website link were advertised in the Scone Advocate on 7, 14, 21 and 28 January 2016. A copy of the advertisement is provided in Appendix A.

Project updates (Appendix B) inviting community feedback were distributed to about 3000 properties including residences and businesses in Scone and made available for download from the Roads and Maritime website. Copies of the project update were also available at Upper Hunter Shire Council office, with a copy of the REF.

A media release announcing the public display and inviting comments from the community was issued on 15 December 2015 (Appendix C). An additional media statement was released on 3 February 2016 (Appendix C).

Drop-in information sessions were held on Thursday 21 January 2016 between 3pm and 7pm, Thursday 4 February 2016 between 3pm and 7pm, and Friday 5 February 2016 between 10am and 2pm at the Scone Motor Inn, 53 New England Highway, Scone.

A total of 200 people visited these staffed displays to discuss the proposal with the project team.
2 Response to issues

Roads and Maritime received 211 submissions, accepted up until the 29 February 2016. Appendix D lists the respondents and each respondent’s allocated submission number. Appendix D also indicates where the issues from each submission have been addressed in this report.

2.1 Overview of issues raised

A total of 211 submissions were received in response to the display of the REF. This included submissions from one government agency and 210 from the community.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and Roads and Maritime’s responses to these issues forms the basis of this section.

Of the 211 submissions:

- 16 (seven per cent) clearly stated support for the proposal
- 10 (five per cent) clearly stated an objection to the proposal
- 171 (81 per cent) stated some form of change to one or more elements of the proposal
- 14 (seven per cent) were not definitive.

One submission was received from a government agency, Upper Hunter Shire Council. The key issues raised in this submission were:

- Proposal objectives, relating to emergency vehicle access and urban amenity
- Lack of connectivity at the northern and southern ends
- Proposed speed limit
- Loss of passing trade
- Environmental and heritage impacts
- Acquisition of Council owned land
- Form of environmental assessment
- Request to consider the provision of future pedestrian and cyclist facilities
- Impact on community facilities.

The key issues raised by community submissions were:

- Lack of connectivity at the northern and southern ends
- Proposed speed limit
- Loss of passing trade
- Traffic and access impact
- Proposed St Aubins Street intersection
- Alternatives considered
- Emergency services.

Of the 211 submissions, 115 were identified as unique submissions with the balance of 96 being comprised of form letters. All unique submissions and form letters have been assigned a submission number (refer to Appendix D).

It is important to note that Roads and Maritime follows issue based decision making. This means that although preferences and frequency of a comment or issue are noted, Roads and Maritime examines the issues raised throughout the consultation period using the fact based assessment process.
2.2 Need and options considered

2.2.1 Proposal objectives

Submission numbers
2, 13, 17, 22, 29, 33, 34, 73, 81, 128, 131, 135

Issue description
Respondents queried the extent to which the proposal meets the objectives. The issues are summarised as follows:

- Felt the proposal does not align with NSW Long Term Transport Master Plan objectives to improve travel and amenity in Scone
- Suggested the proposal disadvantaged Scone residents by increasing traffic on local roads
- Noted the proposal is broadly consistent with Federal and State long term plans and strategies to improve town amenity, road safety and pedestrian protection, and consistent with the long term positive outcomes listed in the Economic Evaluation of Town Bypasses report (Roads and Maritime 2012a).

Response
The bypass provides a long term solution to removing through traffic, including freight vehicles, from the main street in Scone. This is consistent with a number of strategic documents as discussed in the REF (Section 2.1.2), including the NSW Long Term Transport Master Plan (Transport for NSW 2012) and the NSW 2021: A Plan to Make NSW Number One (NSW 2021) (Department of Premier and Cabinet 2011). It will:

- Remove emergency services response constraints in the instance of a blockage of the two public level crossings
- Improve road safety through town
- Improve efficiency of the New England Highway
- Provide opportunities for Upper Hunter Shire Council to make significant improvements to the amenity of the town

The need for a town bypass received strong community support based on submissions to the public display of the Scone Level Crossing Feasibility Study in 2012 (Roads and Maritime 2012b) and the Scone Rail Level Crossing viable options in 2013.

The NSW Long Term Transport Master Plan identifies six key themes and challenges for the NSW transport network over the next 20 years. Two of these themes reference upgrades to the New England Highway and justify the need for the proposal.

Theme 4: Providing Essential Access for Regional NSW

The proposal aligns with the plan by addressing the bottleneck created by the priority given to trains over highway traffic. The plan identifies the following as part of its long-term strategy to provide essential access to regional NSW:

- ‘Rural highway upgrades, including…pinch points on the New England Highway’, ‘road upgrade works [on the New England Highway] to address [freight] access and safety issues’ and ‘ensuring appropriate capacity to service the [coal] industry’s needs [in the Gunnedah Basin].

In relation to the Hunter Region, the plan states that in the short term the NSW Government will consider how best to reduce the impact of freight movements in Scone including evaluating options to eliminate the rail level crossing between the New England Highway at Kelly Street and the Main Northern Railway line at Werris Creek. In the medium to longer term, actions include New England Highway upgrades to address safety and congestion issues as they emerge; and implementation of improvements on the highway at Scone to improve pedestrian facilities and create a safer environment.
The plan also notes the rail corridor between Newcastle and Scone is close to capacity and the New England Highway passes through several growing towns where local traffic movements are having an impact on longer distance passenger and freight travel.

**Theme 5: Support an efficient and productive freight industry**

The proposal would align with the theme to support an efficient and productive freight industry by improving travel time reliability and reducing operating costs for heavy vehicles on the New England Highway section of the National Land Transport Network which services key mining, industry and agricultural centres in the Upper Hunter, including coal mining, energy generation, thoroughbred horse racing and wine making.

As discussed in Section 2.6.2, the bypass improves efficiency of the road network for both through and local traffic. The bypass provides an alternate route for local and through traffic depending on origin and destination. The bypass also offers unimpeded (by rail operation) east-west access for local and emergency services traffic. The bypass removes traffic from the local road network, reducing congestion and improving the performance of the local road network. The proposal would result in increased traffic on some local streets in the vicinity of the bypass. Traffic modelling of the affected road network (including the local road network between Kelly Street and the bypass) demonstrates a satisfactory performance currently and ten years into the future with the proposal in place.

### 2.2.2 Alternatives and need

**Submission numbers**


**Issue description**

Respondents raised issues about the options considered. The issues are summarised as follows:

- Questioned why an underpass option had not been considered
- Felt the bypass is not the most efficient way to address traffic flow in and around Scone
- Felt the bypass would divide the town
- Suggested alternate options including expediting the rail bridge, and a freight rail and heavy vehicle bypass of Scone
- Suggested roundabouts at the northern and southern connections to improve access to and from the bypass and negate the need for a rail bridge
- Expressed preference for previously displayed bypass routes
- Reiterated the need for a bypass to improve safety in the main street
- Provided examples of other towns where bypasses had been completed.

**Response**

An options assessment and feasibility study for the Scone - Kelly Street Level Crossing was carried out from 2011-2014. The development and refinement of options for the Scone (Kelly Street) level crossing took place through a series of technical processes and workshops. These processes and workshops involved the participation of stakeholders, technical staff and the local community. A pool of 20 potential options was initially identified. During a series of workshops, a multi-criteria analysis approach was used to reduce this original pool to five options which were displayed for community comment in November 2012. The displayed options included four road options and one rail option (Options 1–5). During the display Upper Hunter Shire Council advocated and displayed a variation (Option 6) of Roads and Maritime’s Option 4 - an ‘in-town’ road over rail bridge at Kelly Street. Each of the five Roads and Maritime options (Options 1–5) was developed to the level of a strategic concept design.
The resultant designs were technically assessed in terms of the following:

- Present and future traffic conditions, including road network level of service and crash reduction
- Cost and economic analysis
- Road and level crossing safety
- Constructability and construction timeframes.

These options went through a process of assessment by stakeholders, including community members, through a value management workshop and study. During the workshop and study, each of the options was assessed against project objectives and stakeholder defined criteria. The value management workshop resulted in two options that would remain under consideration. These were:

- New England Highway bypass at Scone – Option 1
- A hybrid ‘in-town’ option, incorporating features of Option 4 and its variant – Option 6.

Further assessment of the two options recommended for consideration during the option assessment workshop and subsequent display resulted in the selection of a single recommended preferred option.

The recommended preferred option was modified Option 1 – New England Highway bypass of Scone and local road over rail bridge at Kelly Street. Modified Option 1 performed strongly against the objectives of the project as determined in the Terms of Reference and best aligned to the long term plans and strategies of the NSW and Australian governments.

- A road bypass of Scone would support freight and long distance travel important to the NSW and national economy being part of the Sydney-Brisbane National Land Transport Network between the Gunnedah Basin and Port of Newcastle
- Bypassing Scone supports the NSW Long Term Transport Master Plan (Transport for NSW 2012) theme to provide essential access for regional NSW by providing for town bypasses to improve travel within towns, reduce delays caused to freight traffic, increase safety, and improve the urban amenity of towns. The removal of the rail level crossing is also a short-term action in the plan
- The local road bridge would address severance of the town, improving emergency services access and the reliability of travel through Scone via Kelly Street.

Options considering an underpass of the Great Northern Railway were precluded. The level of the underpass would need to be significantly lower than the surrounding land and would be subject to frequent flooding which would not meet the design standard of a minimum of flood immunity of 20-year annual recurrence interval.

The speed zone of the proposal is consistent with the adjacent sections of the New England Highway and other proposed bypasses on this route. Intersections on the bypass have been designed to allow for safe access and egress to and from Scone including for heavy vehicles, and traffic modelling indicates all movements at all intersections perform well (level of service A) ten years after opening with minimal delay.

The proposal bridges over Liverpool Street and Kingdon Street which in effect allows the local road network to operate unimpeded by the bypass. The changes to the southern and northern bypass intersections (refer to Section 4) now provide for all turning movements making access on and off the bypass easier for heavy vehicles. The provision of the bypass provides an additional crossing of the railway line in Scone and an alternative route depending on origin and destination. The bypass removes traffic from the existing local road network which results in less congestion of the existing network and improved travel time for local traffic.
2.3 Description of the proposal

2.3.1 Design features

Submission numbers
77, 82, 91, 135, 238

Issue description
Respondents raised the following issues with aspects of the design:

- Expressed concerns about the curves on the bypass presenting a safety issue
- Requested median pedestrian fences
- Requested consideration of provision for future pedestrian and cyclist facilities
- Suggested batter slopes on the bypass are too steep and should be flattened.

Response
The proposed bypass has been designed to meet current standards for the proposed speed limit. The majority of the elevated sections of the bypass are on bridging structures with appropriate bridge and approach barriers to minimise the risk of vehicles exiting the carriageway at height.

There is not a warrant for a median pedestrian fence as the proposal is not designed to facilitate pedestrian activity and it is anticipated there would be very low pedestrian activity. Existing pedestrian movements are provided for beneath the overbridge, providing connection along Liverpool Street and Kingdon Street.

The shoulders of the bypass are suitable for on road cyclists. Under current arrangements, provision for off road cycle facilities is the responsibility of Upper Hunter Shire Council and is beyond the scope of the proposal. The proposal has been assessed based on the impact of the property boundaries shown in Figure 3.1. Additional property acquisition to accommodate an off road cycleway would be subject to further environmental assessment by Council.

Flatter batter slopes for low embankments will be considered during detailed design.

2.3.2 Speed limit

Submission numbers

Issue description
Respondents commented on the proposed speed limit on the bypass. The issues are summarised as follows:

- Felt the proposed 100 kilometres per hour speed limit on the bypass is too fast
- Suggested lower speed limits
- Expressed support for the proposed speed limit.
Response

The New England Highway is part of the National Land Transport Network Sydney to Brisbane route. Roads identified as part of this network are recognised for their strategic importance to national and regional economic growth, development and connectivity. The New England Highway services key mining, industrial and agricultural centres in the Upper Hunter including coal mining, energy generation, thoroughbred horse racing and wine making. The proposal has been designed to have a posted speed limit of 100 kilometres per hour to maximise the potential economic growth arising from the bypass particularly for regional NSW.

The speed zone of the proposal is consistent with the adjacent sections of the New England Highway and other proposed bypasses on this route. Intersections on the bypass have been designed to allow for safe access and egress to and from Scone including for heavy vehicles. Traffic modelling indicates all movements at all intersections perform well (level of service A) ten years after opening with minimal delay with the proposed speed limit of 100 kilometres per hour.

The modification to the southern bypass intersection has removed the conflict of right turn into Scone from the south and provides unimpeded safer access to Scone.

2.3.3 Southern connection

Submission numbers
35, 44, 61, 77, 78, 90, 105, 111, 134

Issue description
Respondents raised the following issues with the southern bypass intersection:

- Expressed the need for a right hand turn on to the bypass for traffic coming from Scone
- Noted the potential for motorists and emergency services to perform illegal right hand turns on to the bypass
- Raised safety concerns about turning right into Scone from the bypass across oncoming traffic
- Suggested a roundabout at the southern intersection would be appropriate.

Response

The southern intersection arrangement has been modified (refer to Section 4) to allow vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic.

The southbound exit from Scone towards Aberdeen remains as previously proposed, utilising the existing highway alignment. However, an underpass has now been introduced to provide safer access in and out of Scone. Northbound vehicles wishing to enter Scone now utilise an off-road ramp and pass under the bypass, connecting to Kelly Street in the vicinity of St Aubins Arms. Vehicles wishing to exit Scone and travel north on the bypass also utilise the underpass (two-way road) and join the bypass south of the underpass bridge. This arrangement provides a safer solution as vehicles will not turn across opposing lanes and traffic. A left turn lane for southbound traffic to enter Scone is still provided. This intersection arrangement will be developed further through the upcoming detailed design phase for the proposal.

The intersections, including provision for all turning movements, have been designed to current standards for the proposed speed limit and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements. All traffic using the intersection will be required to obey the road rules, exercise normal due caution and drive to the prevailing conditions.

The proposed bypass has been designed to meet current standards for the proposed speed limit and predicted traffic volumes.
2.3.4  St Aubins Street intersection

Submission numbers
6, 11, 15, 18, 30, 35, 37, 49, 51, 56, 58, 59, 60, 61, 69, 75, 77, 84, 86, 87, 88, 89, 100, 106, 111, 122, 123, 125, 127, 128, 129, 130, 132, 135

Issue description
Respondents raised concerns about suitability of St Aubins Street as an intersecting road, the proposed design of the intersection, and traffic implications on surrounding local roads. The issues are summarised as follows:

- Suggested the intersection would be better placed at Liverpool Street
- Noted the westerly sun would impede motorists accessing the bypass in the afternoons
- Queried the lack of an acceleration lane for vehicles entering the bypass from St Aubins Street to travel south
- Expressed concern about the single turning lane arrangement and traffic stacking on St Aubins Street
- Suggested an on-ramp to the bypass on the western side so trucks don’t have to perform tight turns on local roads to access the bypass
- Requested traffic control for the intersection, either as a signalised intersection or a roundabout
- Raised concerns about the proposed bypass speed limit at the intersection
- Expressed concerns the arrangement of the intersection is ambiguous and conducive to motor vehicle collisions
- Raised concerns about increased traffic on St Aubins, Aberdeen, Liverpool and Susan streets
- Suggested surrounding local roads are not wide enough to accommodate additional traffic.

Response
Locating the intersection at St Aubins Street positions the intersection away from the floodplain complexities associated with the Liverpool Street location. An at-grade or grade separated intersection at Liverpool Street with the bypass (including an on-ramp on the western side of the bypass) is not a viable option due to many impacts, such as increased flooding levels, full reconstruction of Liverpool Street and existing culverts across the flood plain, increased noise and complexity with the bridge over Parsons Gully. Further, the addition of an at-grade intersection would require traffic lights or roundabouts, which would be unsafe for the proposed speed limit, and would substantially increase noise impact.

The proposal would result in increased traffic on local streets in the vicinity of the St Aubins Street intersection. Traffic assessments carried out for the proposal demonstrate the affected streets and intersections can safely carry the predicted volumes. All traffic using local streets must comply with existing speed limits. Traffic modelling has been carried out for the study area of Scone to assess the performance of the current road network and the performance of the proposed road network (including the local road network between Kelly Street and the bypass) on opening of the bypass and ten years into the future with the bypass in operation. The road connection between the St Aubins Street bypass intersection and Liverpool Street is predicted to operate at a good level of service during this period (levels of service A and B). It is predicted the bypass would have no impact on the level of service of the intersection of Liverpool Street and Aberdeen Street as the increase in traffic on Aberdeen Street is the same traffic transferred from Liverpool Street.

At this location the southbound left turn lane into Scone has been moved further away from the intersection, to provide a safer provision for vehicles exiting St Aubins Street in both a southerly and northerly direction (left and right turn out) (refer to Section 4). This has been provided as a further safety improvement for the intersection arrangement in response to submissions received. In addition, widening of Aberdeen Street on the approach to St Aubins Street has been added to the proposal to assist left turn movements into St Aubins Street.
The intersections, including provision for all turning movements, have been designed to current standards for the proposed speed limit and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements. All traffic using the intersection will be required to obey the road rules, exercise normal due caution and drive to the prevailing conditions.

### 2.3.5 Northern connection

**Submission numbers**

6, 9, 24, 37, 44, 47, 60, 61, 77, 82, 92, 111, 128

**Issue description**

Respondents raised the following issues with the northern bypass intersection:

- Expressed the need for a right hand turn from the bypass into Scone
- Queried the lack of an acceleration lane for vehicles turning left on to the bypass from Scone
- Expressed concerns about line of site for vehicles turning left on to the bypass to travel south
- Queried the purpose of the roundabout at the northern end, with some suggesting it should be closer to town and function as bypass entry and exit point
- Raised concerns with the elevated embankments complicating motor vehicle accidents
- Commented a northern intersection allowing for all turning movements would negate the need for the St Aubins Street intersection.

**Response**

The northern intersection has been modified to provide right turn facilities into Scone for northbound bypass traffic (refer to Section 4). The connecting leg to the intersection now becomes two-way to accommodate incoming vehicles from the right turn provision. Right and left turn out at the intersection remains as presented in the REF. In addition, the southbound left turn provision remains as presented in the REF, however the roundabout U-turn facility has been modified to provide for access to the private property on the eastern side of the New England Highway.

The northern roundabout in the former design was provided to permit access to properties located on the existing highway. As noted above this has been revised in light of submissions.

The intersections, including provision for all turning movements, have been designed to current standards (including safety provisions for embankments) for the proposed speed limit and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements. All traffic using the intersection will be required to obey the road rules, exercise normal due caution and drive to the prevailing conditions.

Providing full access at the northern intersection does not negate the warrant for the St Aubins Street intersection. An intersection at St Aubins Street is required to provide access to the bypass for vehicles coming from the east or west, allowing them to avoid the need to travel through the town centre.

### 2.3.6 Northern and southern connections

**Submission numbers**

Issue description

Respondents raised issues about limited turning movements, called for traffic control measures, and expressed concerns about safety issues at the northern and southern intersections. The issues are summarised as follows:

- Requested all bypass intersections allow for all turning movements.
- Suggested design modifications such as fly-overs and seagull intersections are needed to accommodate the 100 kilometres per hour speed limit.
- Expressed preference for roundabouts at all intersections. Two respondents stated roundabouts weren’t needed as the current design is adequate. One respondent suggested a signalised intersection.
- Raised concerns the intersections are conducive to motor vehicle collisions.

Response

As described in Section 2.3.3, 2.3.4 and 2.3.5, the southern, northern and St Aubins Street intersections have been modified in response to submissions received (refer to Section 4). The changes to the southern and northern bypass intersections now allow for all turning movements which provides easier and safer access on and off the bypass for all vehicles. The intersections, including provision for all turning movements, have been designed to current standards for the proposed speed limit and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements. All traffic using the intersection will be required to obey the road rules, exercise normal due caution and drive to the prevailing conditions.

The New England Highway is part of the National Land Transport Network Sydney to Brisbane route. Roads identified as part of this network are recognised for their strategic importance to national and regional economic growth, development and connectivity. The New England Highway services key mining, industrial and agricultural centres in the Upper Hunter including coal mining, energy generation, thoroughbred horse racing and wine making.

The proposal has been designed to have a posted speed limit of 100 kilometres per hour to maximise the potential economic growth arising from the bypass particularly for regional NSW. The speed zone of the proposal is consistent with the adjacent sections of the New England Highway and other proposed bypasses on this route. Controlled intersections by way of traffic lights or roundabouts cannot be used in 100 kilometre per hour sign posted speed zones as they do not meet design standards and are unsafe. Further the addition of traffic lights or roundabouts would substantially increase noise impact.

2.3.7 Proposal timing

Submission numbers
77, 86

Issue description

In summary, the respondents raised the following issues:

- Requested timeframes for completion and first use of the bypass
- Suggested the construction timeframe should be reduced.

Response

Construction of the bypass is expected to start in mid-2017 and be open to traffic by mid-2019. The duration of construction would be limited as far as practicable with due consideration for worker and public safety and reasonable hours of work to minimise community impact.

The timing of construction and opening of the rail bridge is dependent on selection of the preferred option due to interactions with the bypass. Construction of rail bridge Option B (Kelly Street) would need to start after opening of the bypass to avoid traffic management issues and would take about one year to construct. Options A or C could be built concurrently with the bypass and could be opened to traffic by mid-2019.
2.3.8   Residual assets

Submission numbers
47, 134, 135

Issue description
Respondents raised issues about ongoing maintenance of Kelly Street and Gundy Road. The issues are summarised as follows:

- Questioned whether Roads and Maritime or Upper Hunter Shire Council would have jurisdiction of Kelly Street
- Expressed concerns about heavy vehicle usage of Kelly Street
- Queried the existing condition of Kelly Street
- Questioned which authority has jurisdiction of Gundy Road.

Response
Reclassification of Kelly Street and handover of road authority responsibilities and maintenance to Upper Hunter Shire Council is subject to future negotiation between Roads and Maritime and Council.

The management of Gundy Road is the responsibility of Upper Hunter Shire Council and this will not change if the bypass is constructed.

As described in Section 2.3.3, 2.3.4 and 2.3.5, the southern, northern and St Aubins Street intersections have been modified in response to the submissions received (refer to Section 4). The changes to the southern and northern bypass intersections now provide an opportunity for heavy vehicles to use the bypass to access locations within Scone, rather than travelling along Kelly Street, depending on their origin and destination.

2.4   Governance and funding

2.4.1   Relevant legislation

Submission numbers
135

Issue description
The respondent raised the following issues:

- Noted, in relation to Clause 228 (2) of the Environmental Planning and Assessment Regulation 2000 the proposal has numerous short and long term negative impacts.
- Expressed disagreement with the conclusion that environmental impacts of the proposal are not likely to be significant and suggested an environmental impact statement (EIS) should be prepared for the proposal.

Response
The proposal was not identified as State Significant Infrastructure during its development. The REF and additional assessments within Section 3 of this submissions report has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the proposed activity. The REF and additional assessments found the impact of the proposal are not likely to be significant and therefore it is not necessary for an environmental impact statement to be prepared for the approval of the Minister for Planning under Part 5.1 of the Environmental Planning and Assessment Act 1979.
2.4.2 Funding

Submission numbers
37, 75, 99, 105, 119, 122, 135

Issue description
In summary, the respondents raised the following issues:

- Suggested the design was carried out with the budget in mind rather than funding the best long-term solution for Scone
- Commented funding of this magnitude is a one off chance remove heavy vehicles from Scone, any mistakes may not be funded in the future
- Felt the proposal would be a waste of money
- Felt the bypass is not an efficient use of funding
- Felt the proposed cost to build the bypass is excessive and has already been exceeded.

Response
The proposal has been selected through and subject to a number of value management exercises to ensure the design is fit for purpose for the foreseeable future, best meets the objectives of the project, and the design optimised to offer value for money.

The changes to the southern and northern bypass intersections (refer to Section 4) now provide for all turning movements making access on and off the bypass easier for heavy vehicles. The provision of the bypass provides an additional crossing of the railway line in Scone and an alternative route depending on origin and destination.

The bypass removes traffic from the existing local road network which results in less congestion of the existing network and improved travel time for local traffic. The proposal displayed in the REF did not provide for all turning movements due to the low traffic demand and to improve road safety and traffic flow at the intersections.

The bypass provides a longer term solution to removing freight vehicles from the main street in Scone consistent with a number of strategic documents as discussed in the REF (Section 2.1.2), including the NSW Long Term Transport Master Plan (Transport for NSW 2012) and the NSW 2021: A Plan to Make NSW Number One (NSW 2021) (Department of Premier and Cabinet 2011). It will:

- Remove emergency services response constraints in the instance of a blockage of the two public level crossings
- Improve road safety through town
- Improve the efficiency of the New England Highway
- Provide opportunities for Upper Hunter Shire Council to make significant improvements to the amenity of the town.

The need for a town bypass received strong community support based on submissions to the public display of the Scone Level Crossing Feasibility Study in 2012 and the Scone Rail Level Crossing viable options in 2013.

The $90 million funding for the proposal was announced in December 2013, before the announcement of the preferred option, and was based on a bypass only solution. The Scone- Kelly Street Level Crossing Options assessment and feasibility report (Roads and Maritime 2014a) acknowledged the strategic cost estimate for Modified Option 1 exceeded the funding allocation but given the competitive market and the conservative nature of strategic estimates, this project could be delivered for less than the estimate of $120 million.

Bridging the length of the proposal would far exceed the allocated funding for the proposal. In addition to this property acquisition would still be required for this structure and a bridge of this scale would increase noise and visual impacts.
2.5 Stakeholder and community consultation

Submission numbers
4, 6, 20, 45, 48, 71, 82, 86, 88, 94, 102, 104, 106, 112, 113, 114, 120, 123, 135, 238

Issue description
Respondents raised concerns about consultation carried for the proposal. The issues are summarised as follows:

- Perceived lack of consultation with the community, Upper Hunter Shire Council, Scone Chamber of Commerce, businesses, and emergency services
- Felt Roads and Maritime have not listened to and/or actioned community feedback
- Raised concerns about the timing of the REF display
- Expressed disappointment with the drop-in community information sessions and communications materials
- Perceived lack of disclosure to the community about modifications to previously displayed designs
- Felt Road and Maritime had already made decisions about the bypass before consultation during the REF display period.

Response
Roads and Maritime’s approach to community engagement on the impact of rail operations on the New England Highway rail level crossing at Scone has been guided by International Association for Public Participation (IAP2) best practice. Roads and Maritime has endeavoured to keep the community informed as the proposal progressed and have worked with the Scone community and key stakeholders to ensure concerns and issues are understood and reflected in the project options developed. The REF (Section 5.2.1) broadly outlines the consultation activities carried out for the proposal. Additional detail on those activities is presented below.

Since project inception in 2011, Roads and Maritime used a range of engagement tools including:

- Stakeholder workshops
- Project updates to residences and businesses in Scone and surrounding areas
- Newspaper advertising
- Media releases
- Drop-in community information sessions
- Static displays
- Meetings with directly impacted landowners, sporting associations, Upper Hunter Shire Council, Scone Chamber of Commerce and Industry Inc (Chamber of Commerce), and emergency services
- Maintaining the Roads and Maritime project web page.

Through these engagement activities, Roads and Maritime received about 395 submissions from the community and key stakeholders since 2011 on options to address the impact of rail operations on the New England Highway rail level crossing at Scone. Almost 500 community members and key stakeholders attended information sessions since 2011 to learn more about the project. This community feedback has been used to select and refine project options.

In 2011 Roads and Maritime carried out an options and feasibility study of upgrade options for the New England Highway (Kelly Street) rail level crossing at Scone. Community members were invited to attend a public meeting to learn more about the study. Two workshops were also held with representatives from Roads and Maritime, Upper Hunter Shire Council, and Australian Rail Track Corporation to provide a forum to discuss potential options. From the workshops, five options to address the impact of rail operations on the New England Highway rail level crossing in Scone were agreed by all participants. The five options are presented in Table 2-1.
Table 2-1 Summary of options – strategic cost estimate

<table>
<thead>
<tr>
<th>Option</th>
<th>Strategic cost estimate (2012 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1 New England Highway bypass of Scone</td>
<td>$95 million</td>
</tr>
<tr>
<td>Option 2 New England Highway realignment to Muffett Street</td>
<td>$75 million</td>
</tr>
<tr>
<td>Option 3 Road over rail bridge at Kelly Street level crossing</td>
<td>$65 million</td>
</tr>
<tr>
<td>Option 4 Road over rail bridge at Kelly Street level crossing</td>
<td>$70 million</td>
</tr>
<tr>
<td>Option 5 Railway bypass of Scone</td>
<td>$250 million</td>
</tr>
</tbody>
</table>

Note: This section of the Main Northern Railway is managed by the Australian Rail Track Corporation (ARTC)

The Scone Level Crossing Feasibility Study Route Options were publically displayed in November 2012. It outlined the five short-listed options to address the impact of rail operations on the New England Highway rail level crossing in Scone. Three drop-in information sessions were held to provide the community with opportunity to comment on their preferred option. The community were also invited to have their say by making a submission. A values management workshop with participants from the Roads and Maritime project team, Upper Hunter Shire Council, government agencies, emergency services, other key stakeholders and the community was also held in 2012 to help identify a preferred option.

The feedback received during the 2012 consultation indicated strong preference for Option 1 (bypass), primarily to remove heavy vehicles from the main street (Kelly Street). Social and amenity impacts were viewed by the community as being critically important. Incorporating feedback from Upper Hunter Shire Council, a modified road over rail bridge at Kelly Street (modified Option 4 in Table 2-1), also emerged as a preferred option. These options were displayed to the community in May 2013 with an invitation to attend staffed community information sessions and make submissions. The feedback received during the 2013 consultation period also indicated a strong preference for Option 1 (bypass). During the consultation period Upper Hunter Shire Council proposed a combined option which included a modified bypass and a local traffic road over rail bridge at Kelly Street which received moderate support.

Taking into account community and key stakeholder feedback to date, in April 2014 Roads and Maritime presented the preferred option of both a bypass and an in-town rail bridge at Kelly Street to the community. After input from the community, Upper Hunter Shire Council, and technical assessments, a minor realignment of the bypass at Liverpool and Kingdon streets was identified to minimise visual, noise and flooding issues and impacts on the golf course. Roads and Maritime also committed to lowering the height of the road wherever possible to minimise visual impact and reduce the need for imported fill material, provide a minimum 5.15 metres clearance over the Great Northern Railway and 5.4 metres clearance over Liverpool Street, refine bridge openings and culvert configurations to minimise flooding impact, and finalise intersection configurations to ensure safe access to and from the bypass.

To inform design development and preparation of the REF for the bypass, representatives from the Chamber of Commerce and emergency services including Scone Ambulance, Fire Station and Police were interviewed on potential impacts during construction and operations as part of the socio-economic impact assessment (SEIA) in July 2015.
The Scone and broader community was invited to provide feedback on the resulting concept design and REF for the proposed New England Highway bypass and strategic options for a town centre rail bridge from 15 December 2015 to 19 February 2016. The consultation period was extended beyond the standard 28-day display to account for the holiday season. About 3000 project updates were distributed to Scone residences and businesses providing information about the proposal and inviting community comment by attendance at one of three staffed community information sessions or via submission.

Based on feedback from key stakeholders during this consultation period, Roads and Maritime committed to carry out additional studies to ensure any socio-economic impact of the proposal is fully understood and addressed (refer to Section 3). These studies include an origin-destination survey for passing trade movements and a survey of 47 businesses to better understand perceived impact of the bypass, and suggestions to minimise impact. Roads and Maritime consulted the Chamber of Commerce to ensure the right mix of businesses were surveyed. An intercept survey was conducted with people who stopped in at Scone to understand their reasons for visiting the town centre. Roads and Maritime has since met with the Local Emergency Management Committee (LEMC) in March 2016 to consult on elements of the proposal.

All submissions are being considered prior to determining the REF. The community feedback gained during the REF display period has been used by Roads and Maritime to modify the proposal as documented in this report (refer to Section 4). The proposal will move into detailed design pending environmental approval.

Roads and Maritime appreciate the feedback received on the consultation activities to date and will use the feedback to inform future planning.

Any services impacted by the proposal will be relocated.

2.6 Traffic and access

2.6.1 Emergency services

Submission numbers
18, 24, 46, 52, 56, 58, 60, 64, 65, 66, 67, 68, 69, 70, 77, 82, 86, 88, 89, 103, 104, 112, 113, 135, 238

Issue description
Respondents raised concerns about arrangements for emergency services during construction and operation of the bypass. The issues are summarised as follows:

• Raised concerns about emergency services accessing the bypass, particularly at the southern intersection
• Suggested roundabouts would be more appropriate at all bypass intersections
• Expressed concerns about traffic congestion delaying emergency services at the St Aubins Street intersection, and poor lines of sight at this location
• Suggested the bypass does not improve 'cross-town' emergency access
• Felt the bypass would increase emergency service response times
• Suggested the bypass needs to accommodate emergency services as a priority including turnaround bays, and an emergency level crossing is needed
• Queried what arrangements are in place to ensure emergency services have access to all areas during construction
• Noted concerns about emergency service access are not warranted as rail crossings will still be available most of the time
• Commented on a rumoured passage beneath the rail line that could be used by emergency services.
Response

The bypass improves efficiency of the road network for both through and local traffic. The bypass provides an alternate route for local and through traffic depending on origin and destination. The bypass also offers unimpeded (by rail operation) east-west access for local and emergency services traffic. The bypass removes traffic from the local road network, reducing congestion and improving the performance of the local road network.

The changes to the southern and northern bypass intersections (refer to Section 4) now provide for all turning movements making access on and off the bypass easier for emergency services vehicles. Therefore, the provision of turnaround bays is not required. The provision of the bypass provides an additional crossing over the railway line in Scone and an alternate route depending on origin and destination and additional emergency level crossings are not required.

The southern intersection has now been modified to provide a grade separation (underpass) for vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic. The northern intersection has been modified to provide right turn facilities for northbound bypass traffic. The bypass now has full access at all three intersections.

The intersections have been designed to current standards and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements.

Traffic modelling has been carried out for the study area of Scone to assess the performance of the current road network and the performance of the proposed road network currently and ten years into the future. The road connection between the St Aubins Street bypass intersection and Liverpool Street is predicted to operate at a good level of service during this period (levels of service A and B). It is predicted the bypass would have no impact on the level of service of the intersection of Liverpool Street and Aberdeen Street, the increase in traffic on Aberdeen Street is equally offset by a reduction in traffic on Liverpool Street. Emergency services access on this link is typical to other areas of Scone and would be subject to normal emergency services procedures and operations.

The intersection of St Aubins Street and the bypass is expected to operate well with minimal delays to all movements (levels of service A ten years after opening). The modification to the intersection has improved sight lines for vehicles entering the bypass, however normal care and procedures will need to be adhered to for all vehicles including emergency vehicles.

The drainage culvert under the great northern railway at Joan Street is not suitable for access, it is under sized both vertically and horizontally, subject to frequent flooding and does not address other project objectives for the New England Highway.

During construction of the proposal, existing access will be maintained at all times where practicable and safe to do so. It is acknowledged that during construction there will be temporary impact on access. Where this occurs suitable alternative access will be provided as required.

Any new crossings of the Great Northern Railway need to be grade separated (bridged). Transport for NSW policy is to avoid new rail level crossings where possible due to safety issues. This is particularly the case where there are a high proportion of heavy vehicles.

The proposal has been designed to have a posted speed limit of 100 kilometres per hour to maximise the potential economic growth arising from the bypass particularly for regional NSW. The speed zone of the proposal is consistent with the adjacent sections of the New England Highway and other proposed bypasses on this route. Controlled intersections by way of traffic lights or roundabouts cannot be used in 100 kilometre per hour sign posted speed zones as do not meet design standards and are unsafe. Further the addition of traffic lights or roundabouts would substantially increase noise impacts.
2.6.2 Traffic

Submission numbers
11, 39, 60, 82, 106, 135

Issue description
In summary, the respondents raised the following issues:

- Expressed concerns the REF did not contain information about:
  - Traffic using Liverpool Street between Kelly Street and Satur Road
  - How western traffic would operate
  - Traffic arrangements that would be in place during construction.
- Suggested a U-turn facility for vehicles that exit the bypass in error
- Raised concerns about increased traffic in general
- Commented about the terminology used to describe typical journeys in Scone
- Questioned whether the bypass improves local connectivity.

Response
As outlined in Section 1.2, there have been a number of design changes to the proposal in response to the submissions received (refer to Section 4). These design changes address the concerns in relation to potential traffic and safety issues. The changes to the southern and northern bypass intersections provide for all turning movements allowing easier access on and off the bypass. The intersections have been designed to current standards and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements.

The bypass improves efficiency of the road network for both through and local traffic. The bypass provides an alternate route for local and through traffic depending on origin and destination. The bypass also offers unimpeded (by rail operation) east-west access for local and emergency services traffic. The bypass removes traffic from the local road network, reducing congestion and improving the performance of the local road network.

Traffic modelling has been carried out for the study area of Scone (including the local road network between Kelly Street and the bypass) to assess the performance of the current road network and the performance of the proposed road network currently and ten years into the future. This includes local and through traffic, however reporting has concentrated on north-south traffic where the change in volumes are most impacted by the proposal. The REF (Section 6.1) presents existing and future (with and without the proposal) traffic volumes on Liverpool Street to the east and west of the bypass. Traffic from the west of the bypass that are seeking to travel south or north of Scone could access the bypass via Aberdeen and St Aubins streets. Traffic from the west of the bypass that are seeking to access parts of Scone could either continue along Liverpool Street and use other local roads, or access the bypass at St Aubins Street and exit the bypass at the northern or southern connection depending on their destination.

Traffic volumes will continue to increase without the proposal and result in a worsening of existing traffic issues. The proposal would improve the safety and efficiency of traffic on key parts of the surrounding road network.

Terminology used in the REF is industry standard. It refers to through traffic (being traffic using the existing New England Highway and Liverpool Street with an origin or destination from outside Scone) and local traffic (being traffic with an origin or destination within Scone or immediate surrounding area).

In the event a vehicle turns off the bypass in error they would be required to turn around at a safe location in accordance with the road rules. The provision of a U-turn facility is not necessary.
The REF (Section 6.1.2) discusses the potential traffic impact on local streets during construction. The proposal would require modified arrangements for portions of the existing New England Highway (at the southern and northern ties ins), Kingdon Street, Liverpool Street and St Aubins Street during various stages of construction. Construction speed limits (typically 40 kilometres per hour) would also apply to road segments within and directly adjacent to the construction site. These could lead to short term travel delays for motorists, it is anticipated these impacts would be localised and of a short duration.

Impact would be variable throughout the duration of construction depending on the construction stage. Construction staging would be developed to minimise impact on the road network. Construction activities which could substantially affect traffic congestion would be carried out outside peak periods as far as is practicable.

### 2.6.3 Heavy vehicles

**Submission numbers**

6, 12, 21, 23, 24, 32, 36, 47, 49, 52, 54, 59, 60, 74, 75, 77, 82, 84, 87, 90, 91, 92, 100, 101, 105, 106, 108, 111, 119, 120, 122, 127, 134, 135, 238

**Issue description**

Respondents raised a number of issues about heavy vehicle movements within Scone, use of the bypass as a heavy vehicle route, and heavy vehicles using the St Aubins Street intersection to access the bypass. The issues are summarised as follows:

- Noted the volume of heavy vehicles using Kelly Street to access the saleyards, abattoir, and industrial area, and the impact this has on amenity in Scone
- Commented the bypass would not change truck movements in Scone
- Suggested consideration be given to improving access from the bypass to the saleyards, abattoir, and industrial area to reduce the number of heavy vehicles using Kelly Street. One respondent suggested a level crossing at the northern end of Muffett Street
- Queried the suitability of the St Aubins Street intersection for heavy vehicles exiting the bypass
- Suggested the bypass should be a heavy vehicle route
- Raised concerns about the number of turns heavy vehicles would need to make on local roads when accessing the bypass via the St Aubins Street intersection
- Suggested the proposal does not consider east-west heavy vehicle movements
- Queried whether heavy vehicles would be limited to specified routes on local roads in Scone
- Raised concerns about the length of acceleration lanes on the bypass.

**Response**

As discussed in Section 2.2.2 of this submissions report, the proposed bypass in conjunction with a rail bridge was selected as the preferred option. The bypass will remove through traffic, including heavy vehicles, from the Scone town centre. A heavy vehicle only bypass is not a preferred option. Roads and Maritime acknowledges there are other heavy vehicle routes within Scone, including those accessing the industrial area and saleyards. While the proposal is not intended to address these movements, the proposed design changes (refer to Section 4 of this submissions report), will provide the opportunity for these heavy vehicle movements to use the bypass and avoid Scone town centre. This would further improve the amenity within the Scone town centre and surrounding road network, and provide the opportunity for light vehicle through traffic to visit Scone.

The proposed intersection between the bypass and St Aubins Street has been designed to current road design standards. The intersection has been designed to provide for turning movements by heavy vehicles. Heavy vehicles travelling from the west will be able to access the bypass via Aberdeen and St Aubins streets. These streets meet current design standards for these movements. Traffic modelling has been carried out for the study area of Scone (including the local road network between Kelly Street and the bypass) to assess the performance of the current road network and the performance of the proposed road network currently and ten years into the future.
The road connection between the St Aubins Street bypass intersection and Liverpool Street is predicted to operate at a good level of service during this period (levels of service A and B).

Local roads and associated traffic movements are the responsibility of Upper Hunter Shire Council. The intersections, including lengths of acceleration lanes, have been designed to current standards for the proposed speed limit and traffic modelling indicates the intersections operate well (level of service A ten years after opening) for all turning movements.

### 2.7 Flooding

**Submission numbers**

11, 24, 37, 58, 61, 72, 85, 89, 91, 99, 100, 101, 120, 128, 133

**Issue description**

In summary, the respondents raised the following issues:

- Noted the information in the REF hydrology report stating there was little difference in heights of 1 in 20 and 1 in 100 year floods was incorrect
- Expressed concerns regarding drainage, stormwater movement, and water movement during heavy rain events, particularly in regard to Park Street and the movement of water from the eastern side of the bypass to the western side
- Requested the bypass be constructed as a bridge for all or part of the proposed route to all adequate flood management
- Suggested constructing the bypass closer to ground level, rather than as a viaduct bridge, to act as a flood levee
- Expressed concerns about constructing the bypass in a flood zone and its negative impact on flooding in surrounding areas, particularly agricultural properties on St Aubins Street
- Suggested planting native trees and the use of landfill will exacerbate flood issues
- Requested design modifications such as moving the St Aubins Street intersection to Liverpool Street and roundabouts at the northern and southern intersections to allow access to and from the bypass during flood events.

**Response**

Extensive flood modelling taking into account the bypass alignment and fill embankment has established a marginal difference between the 1 in 20 year and 1 in 100 year flood levels. The flood modelling is based on available data, including previous flood modelling work by Upper Hunter Shire Council which in turn is supported by historical records of flood levels. The assessment has been done to quantify potential impact (refer to Section 6.4 of the REF). As such it has been based upon previous studies. The flood modelling has included all areas likely to be affected by the proposal including Figtree Creek, which crosses Park Street to the east of Kelly Street. There is no predicted impact in Park Street for the modelled flood events.

The final location and configuration of bridges and cross drainage culverts beneath the bypass has been an integral part of the flood modelling to minimise flood impact from the proposal. An example of this is the long viaduct proposed through the Parsons Gully area. However, a marginal increase in flood levels will be experienced on the western side of the bypass with a marginal decrease on the eastern side of the bypass as a result of the proposal. Construction of the proposal at a lower level would not meet the design standard of a minimum of flood immunity of 20 year annual recurrence interval and would result in increased flood impacts on both sides of the bypass.

The proposed landscaping would not affect the predicted flood levels.
An at-grade or grade separated intersection at Liverpool Street with the bypass is not a viable option due to many impacts such as increased flooding levels, full reconstruction of Liverpool Street and existing culverts across the flood plain (to increase flood immunity), increased noise and complexity with bridge over Parsons Gully. Locating the intersection at St Aubins Street positions the intersection away from the floodplain complexities associated with the Liverpool Street location and will provide access to and from the bypass when Liverpool Street has been cut by a flood waters.

The southern intersection has now been modified to provide a grade separation (underpass) for vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic. The underpass will be trafficable in a minor flood event, but not in a major flood event. Alternate access arrangements will allow traffic in and out of Scone at this end of town when major flood events occur.

The flood modelling has been updated to reflect these design changes and the results are presented in Section 3.9 of this submissions report.

2.8 Noise and vibration

Submission numbers
11, 25, 31, 37, 72, 79, 85, 88, 94, 125

Issue description
In summary, the respondents raised the following issues:

- Queried which properties have been identified as being noise affected during operation
- Suggested residents of Scone and Satur, in particular properties on Aberdeen Street and St Aubins Street, will be impacted by noise and possibly vibration
- Raised concerns about the 100 kilometre per hour proposed speed limit given proximity to residential properties
- Expressed concerns operational noise would exceed appropriate levels
- Questioned what mitigation measures would be implemented to manage noise levels
- Requested noise barriers for the length of the bypass
- Noted potential impact of noise on physical and emotional wellbeing.

Response
The REF (Section 6.5) and Appendix G - Noise and Vibration Assessment included an assessment of the potential noise and vibration impact associated with construction and operation of the proposal. Potential noise impacts have been assessed against Australian (more specifically New South Wales) criteria that have been established on the basis of the relationship between noise and health impacts. The criteria developed for use in the assessment for noise impact of the proposal come from policy documents developed by the NSW Government including the Industrial Noise Policy, the NSW Interim Construction Noise Policy, and the Road Noise Policy (NSW DECC 2009; NSW DECCW 2011; NSW EPA 2000). All of these policies are based on the health effects of noise outlined in the reviews published by the following organisations:

- International Institute of Noise Control Engineering – Guidelines for Community Noise Impact Assessment and Mitigation (I-INCE 2011)
As guidelines/criteria based on the protection of health (including annoyance) are available to assess construction and operational noise impacts associated with the proposal, the assessment of potential health impacts has focused on whether the guidelines/criteria established can be met. The worst case assessment predicts that noise criteria and vibration criteria will be exceeded at a number of properties adjacent to the proposal during construction and operation without mitigation measures.

Consequently, substantial mitigation of noise and vibration during the construction phase of the proposal will be essential. Preliminary mitigation measures are provided in section Table 5-1 of this report. The detailed design for the mitigation measures would be outlined in the Construction Noise and Vibration Management Plan. The aim of the mitigation measures will be to reduce noise and vibration to levels that comply with the management goals established in this assessment.

As discussed in Section 2.3.2, the proposal has been designed to have a posted speed limit of 100 kilometres per hour as the New England Highway is part of the National Land Transport Network Sydney to Brisbane route. The speed zone of the proposal is consistent with the adjacent sections of the New England Highway and other proposed bypasses on this route. The operational road traffic noise modelling has assessed the potential impact associated with a speed limit of 100 kilometres per hour on the bypass.

During operation of the proposal there are a number of properties where the proposal would result in increased noise levels such that noise mitigation would be required. Mitigation measures during operation are likely to include use of low noise road surfaces, installation of a noise barrier and architectural treatments on some buildings. While these mitigation measures are required to ensure the environment where people spend most of the day (ie indoors) is not associated with adverse health impacts from excessive noise, it does assume that residents take up these measures and where they do, they keep external windows and doors shut and have minimal use of outdoor areas.

Where specific residents/properties do not take up the recommended architectural treatments to mitigate noise indoors there is the potential for noise levels at these properties to exceed the relevant guidelines/criteria. In these situations, there is the potential for adverse health effects, particularly annoyance and sleep disturbance, to occur.

All receivers (eg residences, schools, churches) that could be affected by road traffic noise from the proposal are identified and mapped on Figure 4-1 within the noise and vibration assessment. Predicted noise contours (without mitigation such as noise walls) with the proposal in operation for both day and night, and the years 2017 and 2027, are presented in Figures 8-2, 8-4, 8-7 and 8-8. Predicted noise levels at all receivers are listed in Appendix B of the noise and vibration assessment. The modelling has predicted that the relevant criteria would be exceeded at a number of properties, including some in Aberdeen Street and St Aubins Street.

The assessment presents options for mitigation of the predicted noise levels which includes a combination of noise walls, low noise road surfaces and architectural treatment of houses. Roads and Maritimes preferred mitigation is the combination of a low noise road surface and noise walls. Refer to Figure 6.12 of the REF. During detailed design the noise model will be verified and where required mitigation measure refined. Where architectural treatments are proposed Roads and Maritime will carry out consultation with the individual property owners once this is confirmed.

As described in Section 2.3.3, 2.3.4 and 2.3.5, the southern, northern and St Aubins Street intersections have been modified in response to the submissions received (refer to Section 4). Due to these changes, the noise modelling has been updated and is presented in Section 3.8 of this submissions report.

The assessment identified there would be no expected vibration impact during operation of the proposal.
2.9  Landscape and visual amenity

Submission numbers
11, 31, 79, 85, 88, 93, 94, 99, 133, 135

Issue description
Respondents raised a number of issues about headlights shining into properties, visual impact and fit of the proposed bypass with the rural character of Scone, privacy, and mitigation measures. The issues are summarised as follows:

- Expressed concerns about headlights shining into properties from vehicles on the bypass
- Suggested the bypass is not in keeping with the rural surrounds and lifestyle, and privacy would be compromised during construction and operation of the bypass
- Concerned residents would need to invest in their own mitigation measures such as planting trees to negate visual impact of the bypass
- Questioned the use of clear noise barriers on the bypass
- Suggested the proposal breaches embankment slopes stipulated in Beyond the Pavement urban design policy (Roads and Maritime 2014b)
- Noted landscaping on the entrance to Scone needs to be coordinated with existing plants.

Response
Visual impact associated with the proposal has been addressed in Section 6.6 of the REF and further detail is provided in Appendix H - Concept urban design and landscape plan.

During construction, there would be potential visual impact to residents due to plant and equipment, earthworks and vegetation removal. Measures to minimise the impact will be included in the construction environmental management plan (CEMP) including maintenance of existing vegetation where possible, appropriate positioning of temporary lighting and tidiness of the construction site and compounds.

The proposal is likely to be visually prominent from several key viewpoints around Scone. The proposal features a number of elements that would be obvious within the predominantly open farmland landscape including embankments, bridges and vehicle movements. The proposal would however result in reduced traffic volumes through Scone town centre which is likely to have positive impact on visual amenity on the existing New England Highway. It is acknowledged that changes resulting from the proposal would affect owners, residents and tenants of properties adjoining the proposal site.

During operation of the proposal, there is potential for headlight intrusion and glare into properties and this will be further considered during detailed design and where possible landscaping would be provided to minimise potential impacts. The design of noise barriers in the REF is indicative only and the details of the materials and barrier types would be further refined during detailed design to minimise potential impacts, including potential headlight intrusion and glare.

Mitigation measures have been identified in the REF to minimise the potential impact. These include measures to be implemented during detailed design including:

- Permanent lighting will be designed to minimise light spill into residential properties and sensitive receptors
- Bridges will be designed and constructed in accordance with the Roads and Maritime Bridge Aesthetics Guidelines (RTA 2003)
- Develop a limited range of materials, colours and textures for all built elements to achieve a simple uncluttered design.
In addition to these, the proposal site will be rehabilitated and landscaped in accordance with an approved landscape plan.

- A detailed landscape plan will be prepared and implemented in accordance with the Roads and Maritime Landscape Guideline (RTA 2008)
- Existing vegetation will be maintained and protected wherever possible.

The landscape plans included within the REF are concept designs. These designs provide indicative landscaping arrangements and would be considered further in the detailed design phase of the proposal. During the detailed design phase landscape plans will be developed which identify the species, number and size of plants, and species application rate in seed mixes. These plans will be developed in consultation with Upper Hunter Shire Council and will consider entrance landscaping and visual impacts. The final landscape plans will seek to minimise visual impacts to surrounding properties as far as possible. Private landholders may elect to carry out further landscaping on their own property.

The Roads and Maritime publication, Beyond the Pavement (2014b) establishes design principles to be considered, along with other environmental, property impact and design considerations. Flatter batter slopes for low embankments will be considered during detailed design.

### 2.10 Ecology

#### Submission numbers

26, 135

#### Issue description

In summary, the respondents raised the following issue:

- Requested assessment for the flying fox colony near the golf course.

#### Response

Ecological impact associated with the Grey-headed Flying-fox were assessed in Section 6.2 of the REF. Section 6.2.3 of the REF states there are no Grey-headed Flying-fox camps or breeding habitat present within the study area. The closest recorded Grey-headed Flying-fox camp is in Singleton, about 60 kilometres south of the proposal site. Habitat for Grey-headed Flying-fox within the study area is limited to foraging habitat which could be used occasionally by Grey-headed Flying-foxes. As a result, assessments of significance under the NSW Threatened Species Conservation Act 1995 and Commonwealth Environment Protection and Biodiversity Act 1999 were carried out and concluded there would not be a significant impact. Ecological surveys carried out in January 2015 as part of the REF process did not identify any signs of a flying-fox camp.

Submissions identified a potential Grey-headed Flying-fox camp has been reported near the Scone Golf Club. To address these submissions, additional assessment has been carried out and is provided in Section 3.2 of this report. This assessment included two additional ecological surveys in February and March 2016 and concluded the previous assessment as carried out as part of the REF is still considered valid. Two additional mitigation measures have been identified to monitor for the presence of flying-foxes before start of construction and if present a management plan will be prepared and implemented detailing site-specific measures.
2.11 Amenity

Submission numbers
31, 75, 85, 93, 94, 99, 104, 113, 128, 135

Issue description
Respondents raised a number of issues relating to the impact of the bypass on lifestyle. The issues are summarised as follows:

- Noted the close proximity of the bypass to residential properties
- Felt the rural lifestyle of Scone residents has not been considered in, and would be impacted by, the proposal
- Expressed concern the bypass will have a negative impact on residents during construction and operation.

Response
It is acknowledged the proposal would have impact on amenity. Amenity impact including traffic and access, noise and vibration, visual and air quality were discussed in Sections 6.1, 6.5, 6.6 and 6.9 of the REF respectively.

Measures to minimise the potential impacts are outlined in Section 5.2 of this report and will be incorporated in the CEMP.

Socio-economic impacts associated with the proposal were discussed in Section 6.12 of the REF. These included potential property and agricultural impacts to residents. The proposal would involve direct and indirect impacts to residential properties.

Local residents will be notified before work starts and would be kept regularly informed of construction activities, timing and progress during the construction process.

Roads and Maritime will carry out regular and ongoing engagement with the community in accordance with a project stakeholder consultation plan. The plan will include information on who will be consulted, the means of consultation and a complaints management procedure.

2.12 Non-Aboriginal heritage

Submission numbers
125, 133, 135

Issue description
Respondents raised a number of issues relating to Non-Aboriginal heritage. The issues are summarised as follows:

- Expressed concern the St Aubins property is significantly impacted by the alignment of the proposed bypass and its connection to the Scone town and other important heritage properties such as St Aubins Arms
- Concerned the bypass creates a physical and visual barrier between the St Aubins property and St Aubins Arms
- Suggested access to the St Aubins property was not required for analysis of key heritage considerations and impacts
-Requested the heritage assessment provide recommendations on mitigation measures to address the heritage impact of the proposal to the St Aubins and St Aubins Arms properties
- Suggested the heritage assessment needs to include all listed heritage items and their level of significance in the vicinity of the proposal, such as The Old Court Theatre (listed in the Upper Hunter Local Environment Plan 2013 and on the State Heritage Register), the Former Convent of Sisters of Mercy, and the former Catholic Church
• Concerned the proposal will be visible from listed heritage items on Kingdon Street and Liverpool Street within the West Scone Conservation Area and requested an assessment of the visual impact of the bypass on views from the conservation area
• Requested vibration monitoring and dilapidation reports for heritage items in the vicinity of the proposal
• Raised concerns about increased traffic on St Aubins Street will impact older heritage properties on the street.

Response
The heritage assessment presented in the REF and Appendix I - Scone Bypass Historical Heritage Assessment included consideration of all heritage items listed on statutory registers. These registers are the Upper Hunter local environment plan, State Heritage Register, and the Australian Heritage database which contains listings for items of National or Commonwealth heritage significance. The Register of the National Estate and Hunter Regional Environmental Plan are no longer statutory listings. The Old Court Theatre is specifically mentioned in the heritage assessment (refer to page 26 and 71) and has been assessed as local heritage item as part of the West Scone Conservation Area, which is also listed as having local heritage value.

As stated on page 52 of the heritage assessment, the assessment of potential impacts only included specific items within 100 metres of the proposal site as these could be subject to direct or indirect (eg vibration) impacts. As such, not all items included in the West Scone Conservation Area are identified in the heritage assessment. However, the heritage assessment (Section 8) has assessed the potential impact to buildings in the West Scone Conservation Area and identified some of the buildings near the proposal may be subject to vibration impact from construction activities, but otherwise there would be no significant impact. Recommendations for dilapidation surveys before and after construction, and vibration monitoring during construction, have been provided to manage these risks.

A noise and vibration assessment was carried as part of the REF (Appendix G). The assessment predicts there may be vibration impact from construction activities on heritage structures in proximity to the proposal and provides recommendations to manage these risks. During operation there is no expected vibration impact associated with any of the predicted traffic movements on listed heritage properties or other buildings, including older residential buildings, in the vicinity of the proposal. The nearest heritage listed building in St Aubins Street is near the intersection with Guernsey Street and will not be affected by the proposal.

The heritage assessment has been carried out in accordance with the relevant guidelines. An assessment of potential visual impact is not a requirement under the relevant guidelines. Irrespective of this, the view to and from of all listed heritage items in the vicinity of the proposal has already been compromised by existing intervening and surrounding development that is not of heritage nature. As a result, there are considered to be no visual impact that would impact on heritage values.

A visual impact assessment was carried out for the REF and is presented in Section 6.6 of the REF and Appendix H - Scone Bypass Concept Urban Design and Landscape Plan. This assessment was carried out in accordance with the relevant guidelines. The assessment has identified where there would be visual impact associated with the proposal and provides recommendations for landscaping and other measures to mitigate the impact. During detailed design the proposed landscaping treatments would be further refined.

The heritage assessment involved a site survey to identify the potential for any previously unrecorded non-Aboriginal heritage items present within the proposal site. At the time the site survey was carried out access to the St Aubins property had not been provided by the property owner. As a result, the survey involved visual inspection of the property from publically accessible areas (eg New England Highway) and neighbouring properties where access had been granted. No potential heritage items were identified from this visual inspection and the need for further survey was determined to not be required.
2.13 Air quality

Submission numbers
31, 79, 93, 99

Issue description
In summary, the respondents raised the following issues:

- Raised that property will be impacted by reduction in air quality
- Expressed concerns about potential impact of reduced air quality on physical and emotional wellbeing.

Response
Section 6.3 of the REF provides an assessment of air quality impacts associated with the operation of the proposal, including modelling of and assessment of vehicle emissions in accordance with Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (the Approved Methods) (NSW Department of Environment and Conservation (DEC) 2005a). The Approved Methods includes impact assessment criteria for a range of pollutants set on the basis of scientific studies of air quality and human health from all over the world, as well as the standards set by other organisations, such as the World Health Organization.

Predictions of pollutant concentrations were made using the Roads and Maritime Tool for Roadside Air Quality (TRAQ) (Sinclair Knight Merz (SKM) 2012). TRAQ has been designed as a ‘first-pass’ screening assessment and uses a conservative approach to estimate pollutant concentrations near a roadway (TRAQ Manual, Roads and Maritime Services 2012c). The model has been used extensively in NSW and is currently accepted by regulatory agencies as an appropriate conservative model for forecasting near field ground level pollutant concentrations from traffic on major roads.

Air emissions during operation of the proposal were identified to consist of products of combustion (exhaust) and particulate matter. Emissions which were assessed were:

- Carbon monoxide (CO)
- Oxides of nitrogen (NOₓ)
- Particulate matter (PM₁₀).

Air emissions were modelled at the kerb and at 10 metres, 20 metres, 50 metres and 100 metres from the kerb. The modelling predicted that the emissions would comply with the impact assessment criteria outlined in the Approved Methods.

Section 6.9 of the REF also outlines an assessment of the construction air quality impacts including potential dust generation associated with the proposal. The Approved Methods includes impact assessment criterion for dust deposition. This criterion will be adopted by the construction contractor during the construction phase of the proposal and monitored on a monthly basis in accordance with methods outlined in Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC 2005b) to ensure compliance.

Measures to minimise air quality impacts during the construction period have been included within Section Table 5-1 of this report and will be included in the CEMP.

Operation of the proposal is not expected to result in air quality impacts. Refer to Section 6.9.3 of the REF.
2.14 Agricultural impact

Submission numbers
72, 133, 135

Issue description
In summary, the respondents raised the following issues:

- Raised concerns about impact on livestock given ongoing issues with fencing, stock access and flooding in Scone.
- Concerned about loss of productivity on the St Aubins property due to acquisition
- Expressed concerns the REF doesn't discuss dryland salinity and potential impacts associated with the proposed work.

Additional submissions were received which raised issues about impacts to property values and certainty for future operations. These issues have been addressed in Section 2.15.1 of this submissions report.

Response
Agricultural impact has been identified in Section 6.10 of the REF. Construction of the proposal would result in the direct removal of agricultural land by acquisition. In addition to the loss of land through acquisition, potential property impacts could relate to loss of infrastructure, property severance, stock routes, ongoing viability and temporary access restrictions.

The need for property acquisitions is still being investigated and would be further refined during the detailed design phase. Roads and Maritime will consult with potentially affected landholders before and during construction to minimise the potential for impacts on agriculture. As required this will include the replacement of infrastructure directly impacted by the proposal. The final road corridor would also be fenced by Roads and Maritime to exclude livestock.

Roads and Maritime would consult with all affected owners and the acquisition process would take potential impacts into account in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.

Dryland salinity is raised as a potential impact adjacent to the Ausgrid substation and the New England Highway in the south of Scone. Design of the proposal may cause upslope waterlogging if inadequate drainage is provided, resulting in salts concentrating in the surface and topsoil. A search of eSPADE mapping (NSW Office of Environment and Heritage) was carried out in the area along the alignment which shows low salinity levels in Scone.

The potential for dryland salinity impacts will be further considered during detailed design.

2.15 Land use and property

2.15.1 Property acquisition

Submission numbers
1, 31, 40, 72, 75, 79, 85, 93, 99, 117, 128, 129, 133, 135

Issue description
Respondents raised a number of issues relating to confirmation of which properties will be subject to acquisition, impact of the proposal on property values, compensation arrangements, consultation, and suggested design modifications. The issues are summarised as follows:

- Requested information about which properties are to be acquired, particularly the sports complex, the St Aubins property, and on Wingen Street
- Raised concerns about impact of the proposal on property values
- Queried compensation arrangements for private and government owned property
• Suggested the removal of the St Aubins Street intersection would ensure property values would not be adversely affected
• Suggested the proposal will increase flooding around Wingen Street which would adversely impact property prices and insurance premiums
• Felt Roads and Maritime have not adequately consulted on property acquisition and requests for on-site discussions have not been responded to
• Queried potential acquisition of properties that is not directly impacted by the proposal.

Response
As detailed in Section 6.11 of the REF the proposal will involve partial and total acquisition of property located within the footprint of the bypass and it is acknowledged this will impact affected property owners. Roads and Maritime also recognises neighbouring property owners may be impacted.

As a result of design changes (refer to Section 4 of this submissions report) the potential property acquisition requirements have been revised and are described and mapped in Section 3 of this submissions report.

Property acquisition for the proposal is scheduled to start after environmental approval of the proposal. All property acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991. Further consultation with property owners directly impacted by the proposal was carried out in response to submissions received to the REF (refer to Section 3.5 of this report). Roads and Maritime will continue to consult with all directly affected landholders, including Upper Hunter Shire Council, during the detailed design stage when property acquisition requirements are confirmed.

Roads and Maritime will also continue to consult with neighbouring landholders and the broader community throughout the detailed design and construction phases in order to manage potential indirect impacts.

The St Aubins Street intersections has been selected as it is away from the floodplain complexities associated with the Liverpool Street. Please refer to Section 2.3.4 of this submissions report for further detail.

It is acknowledged the proposed changes to flooding could have an impact on property. Roads and Maritime will continue to refine the design throughout the detailed design phase to try to further reduce potential flooding impact. Additional flooding assessment and mapping has been carried out and the results are provided in Section 3.9 of this report. Roads and Maritime will consult with all affected property owners likely to be affected by a change in flood levels including providing details of the predicted actual changes in flood levels in relation to each individual property.

Many aspects influence property values such as location and use. It is recognised properties affected by the proposal may be difficult to market before completion of construction due to uncertainty of environmental impacts. Directly affected landowners are being consulted where property acquisition is required. Appropriate compensation would be negotiated in line with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.

Since announcement of the preferred option four properties have been acquired as owner initiated acquisition in accordance with the Roads and Maritime preferred option acquisition policy. These properties were directly affected by the preferred option as displayed in April 2014. Changes to the bypass alignment during concept design development has resulted in one circumstance where the property is no longer directly affected.
2.15.2 Property access

Submission numbers
96, 107, 133, 135

Issue description
Respondents raised the following issues specifically related to private property on the eastern side of the existing New England Highway near the northern connection:

- Raised concerns about the cost implications of re-aligning internal access to connect with relocated road access points
- Expressed concerns the northern connection, including the proposed deceleration lane and turning bulb, doesn’t provide adequate access into existing residential land and the provision for planned future development.

Respondents also raised the following issues specifically related to the St Aubins property:

- Questioned how safe access would be provided into the property
- Safety concerns were raised in relation to access into the property, particularly vehicles travelling southbound and access between the eastern and western extents of the property
- Additional travel time and associated impacts from a lack of direct travel route from Scone or Gundy Road to the eastern extent of property
- Raised concern that the access arrangements for the property does not address the beneficial factors identified in the REF of "improved road safety on the New England Highway" and "reduced travel times”. Stated that the current arrangements which would result in negative outcomes on the property
- To address safety concerns raised the provision for a designated refuge for vehicles travelling south wishing to enter the property was requested
- Impacts to access arrangements during the construction period.

Response
During construction property access will be maintained at all times where practicable and safe to do so. It is acknowledged during construction there will be temporary impacts on property access. Where this occurs suitable alternative access will be provided in consultation with the property owner as required.

During operation, access to all properties will be provided, in consultation with the landowner, and further refined during the detailed design phase.

Design changes have been made as shown in Section 4 of this submissions report. These design changes include changes to the northern connection and access to properties as well as changes to the St Aubins property access.

Access to the St Aubins property at southern end of proposal has been amended. A revised arrangement has been developed to help with safe access to and from the property and to provide direct access across the highway. Ongoing consultation with the property owner will be held throughout the upcoming detail design phase to refine final access arrangements.

The northern intersection has been modified to provide right turn facilities for northbound bypass traffic. In addition, the private property access has been amended to provide more direct access to the property on the eastern side of the existing New England Highway to improve potential future development access (refer to Section 4.9 of this submissions report).

Roads and Maritime will continue to liaise with the property owner during detailed design. These design changes address the concerns in relation to potential access and safety issues.
2.15.3 Property damage

Submission numbers
93, 106, 128, 133

Issue description
In summary, the respondents raised the following issues:

- Raised concerns about construction and operation of the bypass compromising structural integrity of nearby properties
- Requested a building condition assessment
- Questioned who would have financial responsibility for damage to property as a result of construction and operation of the bypass
- Requested the entry for the St Aubins property be reconstructed to maintain a ‘gateway’ entrance.

Response
The REF (Section 6.5) and Appendix G - Noise and Vibration Assessment, included an assessment of the potential vibration impact associated with construction and operation of the proposal.

The assessment identified vibration from general construction activities may exceed the relevant criteria at standard buildings within 18 metres of the activities and at heritage buildings within 35 metres of the activities. Greater distances were identified during piling activities.

Construction methods will be refined during the detailed design phase and will be selected by the successful construction contractor. Mitigation measures were identified in the REF and have been included in Section 5 of this submissions report to manage the potential impact and included carrying out building condition surveys of buildings within the predicted zone of impact before and after construction, and carrying out vibration monitoring during construction to inform construction methods. In the event a building or other infrastructure is damaged by construction activities the construction contractor will be responsible for rectification of the damage.

The assessment identified there would be no expected vibration impact during operation of the proposal.

Damage to or removal of existing infrastructure would be replaced or relocated in consultation with individual property owners.

2.15.4 Utility impacts

Submission numbers
133

Issue description
In summary, respondents raised the following issues:

- Noted the St Aubins property is currently connected to the town water scheme, electricity and telecommunications and the location of these connections will be impacted by the proposal.

Response
Any services impacted by the proposal will be relocated. Construction activities have the potential to result in temporary disruptions to services (power, water, gas and telecommunications) for neighbouring properties during the relocation of utility services. Affected residents would be notified of the disruptions by letter in accordance with Roads and Maritime utility relocation requirements. Any periods of disruption would be kept to the minimum possible for the safe completion of the work.
2.16 Socio-economic effects

2.16.1 Loss of passing trade

Submission numbers

Issue description
Respondents raised a number of issues about the impact of the proposal on the local economy. Submissions were also received supporting the proposal given the enhanced amenity it offers the main street of Scone. The issues are summarised as follows:

- Raised concerns the bypass will result in a loss of passing trade, which would have adverse consequences on local business and employment opportunities in Scone
- Concerned the REF understates the impact of the bypass on local business and the importance of the local business to the Scone community
- Suggested the SEIA contained in the REF was contradictory in stating local businesses in Scone do not rely on passing trade but also acknowledging some businesses in Scone depend on passing trade
- Expressed disappointment that local businesses were not consulted as part of the SEIA
- Felt Roads and Maritime did not invest in appropriate business surveys and research to avoid undesirable results
- Requested adequate access and signage be in place at the northern and southern intersections to direct passing motorists to Scone
- Suggested the bypass will promote competition among business than relying on passing trade.
- Noted the bypass will create a safer shopping environment in the main street
- Suggested the bypass presents an opportunity to revitalise the main street to attract more visitors and improve the shopping experience.

Response
The REF (Section 6.12) and Appendix K - Socio-economic impact assessment, included an assessment of the potential impact of the proposal on businesses within Scone. The proposal would improve the amenity within the Scone town centre by reducing through traffic. This will provide the opportunity for Upper Hunter Shire Council to enhance the town centre. However, Roads and Maritime acknowledges there will be impacts to some businesses.

The assessment identified the types of businesses which could, by the nature of their services, receive passing trade, and therefore be impacted by the proposed bypass. The assessment provided recommendations for measures to manage the impacts. Roads and Maritime acknowledges this assessment was largely based on a review of literature from other bypass projects and no targeted business consultation was carried out.

Roads and Maritime has now carried out business and stopper and origin-destination surveys and an updated assessment of potential impacts is provided in Section 3.4 of this submissions report.

Roads and Maritime has modified the design presented in the REF to provide for all turning movements at the southern and northern connections (refer to Section 4 of this submissions report). This will provide the opportunity for through traffic to enter and exit Scone at all of the intersections with the bypass and minimise the potential loss of passing trade.

The proposal will include standard roadside signage in accordance with Roads and Maritime guidelines.
Further assessment of the potential impact of loss of passing trade has been carried out and is discussed in Section 3.4 of this submissions report. Additional mitigation measures have also been identified.

2.16.2 Community and sporting facilities

Submission numbers
47, 61, 104, 113, 122, 131, 135

Issue description
In summary, the respondents raised the following issues:

- Raised concerns about impact to sporting facilities given their close alignment to the bypass, including the Bill Rose Sports Complex, Scone golf course and rugby grounds
- Requested compensation for the Scone Golf Club and the Bill Rose Sports Complex, including building new club houses and full reinstatement of facilities
- Expressed concern Council recreational facilities will be impacted
- Raised concerns about safety for children using recreational facilities near the St Aubins Street intersection including the skate park, tennis courts, rugby fields, archery and basketball courts
- Expressed concern about impact to the golf course during construction of the bypass.

Response
The proposal has the potential to impact sporting and recreational areas during construction and operation of the proposal. These are discussed in Section 6.12 of the REF and include direct property impacts to the Scone golf course, Bill Rose Sports Complex and dog park.

Roads and Maritime has now carried out additional interviews with Upper Hunter Shire Council and Scone and District Netball Association and an updated assessment of potential impact is provided in Section 3 of this submissions report. To address the potential impact, a number of mitigation measures would be implemented to minimise the impact to the sporting and recreational areas (refer to Section 3 of this submissions report).

The Scone Rugby Oval is identified in the REF as key social and recreational infrastructure near the proposal. Consultation was carried out with the Scone Rugby Club in July 2015 as part of the SEIA. Outcomes of this consultation have been considered during development of design of the proposal to ensure the design does not directly impact the grounds. An additional mitigation measure is proposed and is discussed in Section 3.7 of this submissions report.

It is acknowledged the proposal would result in increased traffic on local streets in the vicinity of the St Aubins Street connection to Liverpool Street by about 2000 vehicles per day. Traffic volumes on streets adjacent to the nearby recreational facilities such as the skate park, tennis courts, rugby fields are predicted to have a much lower increase (in the order of 200-300 vehicles per day) due to the proposal and have a minimal impact on pedestrian safety.

The redesign of the golf course is being managed by Upper Hunter Shire Council and is subject to its own approvals and consultation process.

Property acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.

Indirect amenity impact may be experienced at facilities next to the proposal. Roads and Maritime will carry out regular and ongoing engagement with the community in accordance with a project stakeholder consultation plan. The plan will include information on who will be consulted, the means of consultation and a complaints management procedure.
2.17 Resource use and waste management

Submission numbers
134

Issue description
In summary, the respondent raised the following issues:

- Questioned where materials for the earthworks will be sourced from.

Response
Materials will be sourced from available suppliers and quarries in the local area or region. A suitable source will be negotiated with the successful construction contractor.

2.18 Unrelated/out of scope

Submission numbers
32, 60, 69, 77, 82, 106, 108, 130, 133

Issue description
Respondents raised issues outside of the scope of the bypass proposal. The issues are summarised as follows:

- Raised issues with traffic signals on Kelly Street
- Suggested the proposal should include overtaking lanes to the north and south of Scone
- Requested a roundabout at the intersection of Kelly and Gundy Street
- Questioned the need for roundabouts on Kelly Street
- Noted the noise, vibration, and dust impact of freight rail was not addressed in the proposal
- Requested a directional sign for Tamworth on Kelly Street to direct heavy vehicles to the bypass and light vehicles through Scone
- Suggested additional design elements including:
  - Entry and exit ramp from Kelly Street to Muffett Street
  - Link from the New England Highway to the industrial area via a level crossing
  - Roundabout or other traffic control measure at the intersection of Liverpool and Aberdeen Street, Liverpool and Guernsey Street, and Guernsey Street and the New England highway
- Noted traffic lights in Scone result in illegal U-turns and roundabouts are preferred
- Requested AM & TL McMullin Ltd be consulted on the design of the revised golf course layout and measures to prevent impact and trespass to the property. It is requested AM & TL McMullin Pty Ltd be consulted on the provision of essential services as part of the detailed design for construction.

Response
These issues are considered to be outside of the scope of the proposal.

In response to the issues about Kelly Street, the proposal will reduce traffic on Kelly Street which gives opportunity for Upper Hunter Shire Council to improve Kelly Street after construction of the bypass.

Design to the north and south of the New England Highway is part of the broader New England Highway strategy. The need for further overtaking lanes is being considered in the Transport for NSW New England Highway draft corridor strategy. The draft strategy will be released for community consultation in mid-2016.

The bypass would become the New England Highway and signed appropriately.
The continued operation and associated impact of the rail network in the Scone is beyond the scope of this project.

The provision of roundabouts on Guernsey Street at Liverpool and Kelly streets to provide an alternative access to the saleyards from the west is beyond the scope of this project.

The suggested Upper Hunter Shire Council cross-link is beyond the scope of the proposal however, the proposal is compatible with future (Upper Hunter Shire Council) connection between Makybe Diva Street and Muffett Street.

The redesign of the golf course is being managed by Upper Hunter Shire Council and is therefore subject to its own approvals and consultation process.

2.19 Errors

Submission numbers
4, 5, 114, 121, 133, 135

Issue description
In summary, respondents raised the following issues:

- Noted the cover image used on communications collateral was shown in reverse
- Noted an error in the landholding size listed for AM & TL McMullin Pty Ltd
- Noted the REF contained errors for business names and social infrastructure details.

Response
The issue is in response to the cover image used by Roads and Maritime in the printed December 2015 Project Update newsletter and not in the REF. It is acknowledged the image was shown in reverse on the Project Update and this image was amended for the online version.

It is acknowledged the REF contains a miscalculation in regards to property size at the AM & TL McMullin Pty Ltd landholding. This has been updated and is provided in Section 3 of this submissions report.

It is acknowledged the REF contains minor inaccuracies in the business names and social infrastructure detail in the SEIA. Correct business names and detail is included in the additional assessment carried out for the proposal (refer to Section 3.3 of this report).
3  Additional assessment

3.1  Design refinement

3.1.1  Summary

As a result of the community consultation during public display of the REF and continued development of the proposal design, a number of design refinements have been made to the proposal (refer to Figure 1.2). These are outlined below and are described in further detail in Section 4:

- Access to private property at southern end of proposal
- Southern intersection arrangement
- Access to Scone golf course
- St Aubins Street intersection arrangement
- Widening of Aberdeen Street to assist left turn into St Aubins Street
- Altered access arrangements to private property
- Travelling stock route
- Northern intersection arrangement
- Access to private property at northern end of proposal.

3.1.2  Impact assessment

Only additional potential impacts (either positive or negative) resulting from the proposed design refinements are discussed in the following sections. Impacts considered to be consistent with the REF or regarded as being unaltered are not discussed.

3.2  Flying-fox survey

3.2.1  Summary

The biodiversity assessment carried out for the REF (GHD 2015) addresses the potential terrestrial and aquatic biodiversity impacts associated with the proposal and details the management measures proposed to mitigate these impacts.

Two submissions were received during the REF display which identified a potential Grey-headed Flying-fox camp near the Scone Golf Club.

Ecological surveys were carried out as part of the REF during 28-30 January 2015. These initial surveys included two nights of spotlighting surveys in the golf course area during which no signs of a Flying-fox camp were identified.

Additional site inspections were conducted by two GHD ecologists on 18 February and 8 March 2016 in response to submissions received. These inspections are outlined below.

Additional Survey no. 1 - 18 February 2016

During the survey a Flying-fox camp was recorded occurring immediately west of the Scone Golf Club building in exotic trees on Parsons Gully (refer to Figure 1.2). Upon inspection the Flying-fox camp was identified to contain about 500-700 Little-red Flying-foxes (*Pteropus scapulatus*) (refer to photographs below). The Little-red Flying-fox is not a Federally or State listed threatened species and does not constitute part of any endangered population in NSW. While Little-red Flying-foxes are often known to share camps with other flying-fox species including the threatened Grey-headed Flying-fox (Australian Museum 2016), during the time of survey this camp was observed to only contain Little-red Flying-foxes.
Communications with the Scone National Parks and Wildlife Ranger and OEH Principal Project Officer indicates neither are aware of any Grey-headed Flying-foxes being present in Scone. OEH commented however that a camp containing about 35,000 Grey-headed Flying-foxes has been recorded at Muswellbrook and more recently a temporary camp was also recorded at Aberdeen which occupied the area for about two months (Pers Com OEH Principal Project Officer 16 March 2016). There is therefore some possibility the camp at Scone may at some time have contained a number of Grey-headed Flying-foxes.

The Scone flying-fox camp was observed within exotic tree species Willow (Salix sp.) and Camphor (Camphor laurel), utilising two trees along the eastern bank of Parsons Gully. Willows are listed as a Class 4 – Locally Controlled Weed species in the Upper Hunter Local Control Authority area.

The identified camp occurred about 40 metres east of the proposed bypass alignment, outside of the proposed disturbance area and about 40 metres west of the Scone Golf Club building (refer to Figure 1). Tree utilisation by the bats was evident by stripped limbs and damage to foliage which was restricted to the two trees they were observed in, suggesting the camp only utilise these two trees when roosting at this camp. An inspection was conducted along the remaining length of Parsons Gully to confirm their absence from any other locations.

**Additional Survey no. 2 – 8 March 2016**

A second inspection of the site was carried out by two ecologists on the 8 March 2016, at this time the flying-fox camp had dispersed and none were found to be roosting at the site. Consultation with golf club staff indicates that the bats had moved on the previous Thursday (3 March 2016). An inspection of the length of Parsons Gully confirmed the bats were no longer present within the vicinity of the golf club and there was no evidence the flying-foxes had used any other trees beyond those identified at the first site survey.

Based on the inspections conducted for the proposal and verbal advice documented herein it is apparent that the site is a transient camp used by Little-red Flying-foxes on a seasonal basis between about December to March each year.

### 3.2.2 Potential impact

Little-red Flying-foxes are the most widespread species of megabats in Australia. They occupy a broad range of habitats found in northern and eastern Australia including Queensland, Northern Territory, Western Australia, New South Wales and Victoria (Office of Environment and Heritage (OEH) 2016). Flying-foxes including the Little-red Flying-fox are a nomadic species which move around a region in response to availability of food resources. The species are important pollinators and are known to travel further inland than any other mega-bat species, following the flowering of Eucalypts (Australian Museum 2016).
The Scone golf course camp was not being used by the colony during initial ecological surveys for the proposal in January 2015. Consequently, the Scone golf course camp is unlikely to be used on a permanent basis and is likely to only be used as part of a larger home range on a transitional basis when locally based food resources are available. This is supported by the fact the bats were no longer present at the time of the second site inspection completed on the 8 March 2016.

The two trees utilised by the camp represent only small portion of similar trees suitable and available for flying-foxes in the locality. While the trees utilised by the camp do not require removal as they occur outside of the proposed footprint, indirect impact from the construction and operation of the proposal may impact the flying-fox camp. Indirect impact such as lighting and noise may impact the camp such as to discourage the colony from continuing to camp at the current location on Parsons Gully. Should the proposal result in the disturbance of the camp, the flying-fox colony would be likely to establish other camps in the locality.

The ecological assessment presented in the REF identified the proposal had the potential to impact on foraging resources which could be used occasionally by Grey-headed Flying-foxes. As a result, assessments of significance under the NSW Threatened Species Conservation Act 1995 and Commonwealth Environment Protection and Biodiversity Act 1999 were carried out and concluded there would not be a significant impact.

Given the absence of any evidence to confirm a Grey-headed Flying-fox camp at the site, the conclusions of the previous assessments of significance is still considered valid.

### 3.2.3 Additional management and mitigation measures

The following additional management and mitigation measures will be included as part of the proposal:

- Monitoring will be carried out to determine the presence of flying-foxes, including Grey-headed Flying-foxes, prior to and during construction
- If flying-foxes are identified in the vicinity of the proposal, a flying-fox management plan will be prepared and implemented detailing site-specific mitigation and management measures.

### 3.3 Vegetation impact

#### 3.3.1 Summary

As outlined in Section 3.1, a number of design changes have been made to the proposal. This has resulted in a revised REF proposal boundary (as shown in Figure 1.2) and the area of vegetation impacted within the proposal has slightly changed. The following table is an amendment to Table 6-13 as shown in the REF.

#### 3.3.2 Potential impact

The results shown in Table 3-1 show a minor increase in vegetation that would require clearing for the proposal. This is mostly due to the revised southern intersection arrangement which requires additional land classified as derived native grassland and exotic grassland. This minor increase would not impact on the findings and outcomes as presented in the REF.
Table 3-1  Vegetation types within the proposal site

<table>
<thead>
<tr>
<th>Vegetation type</th>
<th>TSC Act status</th>
<th>EPBC Act status</th>
<th>REF Area impacted (hectares)</th>
<th>Revised impacted area (hectares)</th>
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</thead>
<tbody>
<tr>
<td>Derived native grassland</td>
<td>Not listed</td>
<td>Not listed</td>
<td>7.54</td>
<td>7.86</td>
</tr>
<tr>
<td>Potential derived native grassland</td>
<td>Not listed</td>
<td>Not listed</td>
<td>1.11</td>
<td>1.11</td>
</tr>
<tr>
<td>Exotic grassland with planted trees and scattered remnant trees</td>
<td>Not listed</td>
<td>Not listed</td>
<td>4.63</td>
<td>4.69</td>
</tr>
<tr>
<td>Exotic grassland</td>
<td>Not listed</td>
<td>Not listed</td>
<td>14.71</td>
<td>15.10</td>
</tr>
<tr>
<td>Planted trees</td>
<td>Not listed</td>
<td>Not listed</td>
<td>1.95</td>
<td>1.95</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>33.36</strong></td>
<td><strong>34.32</strong></td>
</tr>
</tbody>
</table>

3.3.3 Additional management and mitigation measures
No additional mitigation measures beyond those already defined in the REF are required.

3.4 Socio-economic effects – loss of passing trade

3.4.1 Summary
The SEIA completed for the proposal and included as Appendix K to the REF (GHD 2015) was prepared to inform the environmental assessment, design, construction and operation phases.

The SEIA process involved consultation with potentially impacted stakeholders. These included:

- Upper Hunter Shire Council
- Emergency service providers
- Affected local businesses
- Agricultural industry group
- Equine industry groups
- Tourism industry groups
- Sporting and recreational facility providers
- Local community and affected private property owners based on consultation carried out for the proposal.

In addition to this consultation, GHD and Roads and Maritime undertook a walk through survey of businesses to determine the number and types of businesses along Kelly Street. This was carried out in July 2015. Individual business owners were not consulted with during this stage due to a number of factors as outlined in the SEIA (Appendix K of the REF).

A number of submissions have been received suggesting the proposal would have an impact on passing trade in Scone. These submissions identified the following:

- Local business surveys were not carried out
- Businesses in Kelly Street were not consulted
- Loss of passing trade will affect employment opportunities
- Encouragement for passing traffic to visit trade in Scone is vital.
The following additional investigations were carried out to address these issues.

**Business surveys**

Business surveys were carried out on 14 (Monday), 15 (Tuesday) and 16 (Wednesday) March 2016 by GHD’s community engagement team.

The purpose of the survey with businesses in Scone town centre (on Kelly Street and Liverpool Street) was to:

- Understand the perceived degree of dependence of businesses on passing trade, potential seasonal variations in passing trade, nature and proportion of local/regional market
- Understand the perceived impact of the proposal on businesses – changes to passing trade, changes in the operation of the businesses
- Potential strategies to minimise impact of the proposal on local businesses.

A total of 47 businesses identified as potentially receiving passing trade were surveyed. The results are detailed in the Supplementary Socio-economic Impact Assessment (Supplementary SEIA) (Appendix E).

The surveys were carried out before the revision of the intersection designs for the proposal (refer to Section 4 of this submissions report). Responses are based on the design and proposal described in the REF.

**Stopper surveys**

To supplement findings of the business survey, an intercept survey of stoppers along Kelly Street was carried out by GHD's community engagement team on 15 (Tuesday), 16 (Wednesday), 18 (Friday) and 19 (Saturday) March 2016. The intercept survey largely included people who were passing through Scone via New England Highway towards another destination, but chose to stop in Scone to purchase or use goods and/or services. It also included a number of locals and people visiting Scone. The surveys were carried out outside of businesses identified as receiving passing trade. The purpose of this survey was to:

- Understand the attitudes of stoppers and their reasons for stopping in Scone including length of their stop over, activities carried out during the stop over, money spent in the community (at businesses in Scone town centre) during the stop over and potential for repeat visit
- Understand potential changes in stoppers behaviour once the proposal is operational
- Ask for recommendations to encourage stoppers to continue to visit Scone after the bypass is operational.

A sample of 99 intercept survey responses of people in Scone at Kelly Street were carried out. The results are detailed in the Supplementary SEIA (Appendix E).

The surveys were carried out before the revision of the intersection designs for the proposal (refer to Section 4 of this submissions report). Responses are based on the design and proposal described in the REF.

**Origin-destination survey**

An origin-destination survey was carried out on 15 (Tuesday) March and 19 (Saturday) March 2016 at key locations within and near Scone to monitor vehicle movements and identify through traffic that was stopping in Scone. The results of the origin-destination survey conducted in 2015 and presented in the REF were also used for the supplementary SEIA.

**Literature review**

The supplementary SEIA also involved a literature review of:

- Draft Scone Town Centre Masterplan
- Review of previous studies of the economic impact of town bypasses.
3.4.2 Potential impact

Perceived understanding of existing customer base of businesses in Scone town centre

To understand potential reliance of surveyed businesses on passing trade, businesses were asked to estimate the proportion of trade received from various types of customers namely local/regional, passing trade and visitors, defined as follows:

The customer base in Scone was categorised as follows:

- Local/regional customers – those customers that reside in Scone and Upper Hunter Shire region
- Passing trade – passing trade is defined as opportunistic trade generated from customers who are passing through Scone towards another destination, but choose to stop in Scone to purchase goods and services
- Visitors – visitors to Scone are those customers who have planned a visit to Scone as a destination for purposes like tourism, business, visiting family or friends, attending events or functions.

Data on the perceived proportion of customers received by surveyed businesses is presented in the following graph.

The data shows surveyed businesses along Kelly Street and Liverpool Street have a fairly mixed customer base. The majority of the businesses receive a larger proportion of local/regional customers and customers who are visitors to Scone, than the opportunistic passing trade. A number of businesses do receive passing trade, and the data shows that the majority (53 per cent) of these businesses receive some (21-49 per cent) passing customers and 34 per cent of the businesses receive a few passing trade customers (less than 20 per cent). However, nine percent (9 per cent) of the surveyed businesses perceived they received the majority (over 50 per cent) of their customers from passing trade.
Potential perceived impact of the proposal on local businesses

Businesses were asked if and how they perceived they would be impacted by the proposal. Key findings were:

- 53 per cent (25 businesses) perceived the proposal described in the REF would lead to a drop in passing trade and negatively impact their business
- 38 per cent (18 businesses) perceived their business would be positively impacted
- A large majority of businesses 74 per cent (35 businesses) perceived they would continue to operate after the completion of the proposal
- 15 per cent (seven businesses) said their business may/may not continue to operate after the completion of the proposal. This included three retail stores, one eatery/café, one service station, one accommodation facility and one combined eatery and accommodation
- 11 per cent (five businesses) perceive they would be unable to continue operating after the completion of the proposal. This included two retail stores, one eatery/café, one service station and one other type of business. One of the business that said they would potentially close down reported they were already struggling and any loss in passing trade would further reduce the viability of the business.

Key findings from the stopper survey

Of the 99 stoppers surveyed, 54 (54 per cent) were considered to be passing trade customers. Not all respondents answered all of the questions.

Of the 94 per cent (51 respondents) indicated they would stop at Scone again, two per cent (one respondent) said they would not and four per cent (two respondents) did not answer.

The main reasons why passing trade customers stopped in Scone were to:

- Eat (70 per cent of respondents)
- Other reasons (24 per cent) including stopping for a coffee, getting car parts, medical reasons, to look around at the scenery and stopping for their dog
- To look around/shop (11 per cent)
- To stretch (six per cent)
- To repair their car (four per cent).

The majority (about 81 per cent) of passing trade customers spent under an hour in Scone during their stop over.

To understand the impact of the proposal, the passing travelers were asked if they would continue to stop in Scone after the proposal was operational:

- 61 per cent (33 respondents) indicated they would stop at Scone again after the bypass is completed because Scone is a convenient location, they are familiar with the area and because it offers a large town centre
- 15 per cent (eight respondent) said no, because it would be faster to bypass the town to get to their destination, it is not convenient to stop at Scone
- 20 per cent (11 respondents) said maybe because it would depend on the trip or if there was a reason to make a stop.

Key findings of origin-destination surveys (2015 and 2016)

Analysis of the origin-destination surveys carried out in 2015 and detailed in the REF predicts that with the operation of the proposal there could be a 37 per cent drop in light vehicles and 56 per cent drop in heavy vehicles passing through town (along Kelly Street). This means the majority of light vehicles (63 per cent) and 44 per cent of heavy vehicles have an origin or destination in Scone, or are visiting Scone and would continue to provide ongoing trade for local businesses.

In March 2016 additional origin-destination surveys were carried out at locations near two businesses considered to be representative of a business which could be reliant on passing trade. It is acknowledged the survey data represents a point in time scenario of customers visiting the businesses. The data shows both the businesses received passing trade and local customers.
Across the two days the data indicates that, on average, between 25 per cent and 30 per cent of vehicles visiting these businesses are highway passing trade. About 60 per cent of the highway passing trade was southbound traffic and 40 per cent northbound. Both the 2014 and 2016 origin-destination surveys indicate the following in relation to general movement patterns through Scone along the New England Highway:

- On average, about 47 per cent of southbound traffic on the northern approach to Scone does not stop in Scone and continues south. On average 70 per cent of this through traffic does not stop in Scone.
- On average, about 38 per cent of northbound traffic on the southern approach to Scone does not stop in Scone and continues north. On average 68 per cent of this through traffic does not stop in Scone.

**Conclusion of potential impact of proposal on businesses along Kelly Street**

The findings from the origin-destination surveys and the stopper surveys indicate that while there would be a reduction in passing trade, a large proportion of vehicles and stoppers would continue to visit and stop in Scone even after the proposal is operational.

Roads and Maritime has modified the design of the proposal that was presented in the REF. These changes provide for all turning movements at the southern and northern connections (refer Section 4 of this submissions report). The proposed connections between the proposal and Scone would continue to provide opportunities for passing traffic to access the service stations and local businesses within Scone. The proposal is relatively close to Scone and provides opportunities for passing travellers to enter Scone via the connections with the existing highway at the southern and northern ends and at St Aubins Street. This will provide opportunity for through traffic to enter and exit Scone at all of the intersections with the bypass. Passing motorists would be able to see the town from the highway, which would provide an opportunity for them to enter town and make use of the accommodation and business facilities.

These design changes also complement the outcomes of the Draft Scone Town Centre Master Plan by providing the entry and exit points for ‘gateway’ locations to continue to attract passing trade off the bypass.

Findings from the business surveys and the origin-destination surveys indicate businesses in Scone have a wide customer base. The majority of businesses rely on local/regional customers and visitors to Scone for a large proportion of their customers. However, there are a small number (nine per cent) of businesses which perceive passing trade makes up the majority of their customers and over half of the businesses perceive they receive some (20-49 percent) passing trade.

The majority of the businesses would experience a reduction in customers due to the likely reduction in passing trade, however, they would continue to operate based on the local/regional customers, visitors and passing trade that would continue to go through town. Businesses which perceived they would experience adverse impact from the proposal included:

- 15 per cent (seven) businesses perceived the likely reduction in passing trade may or may not make their businesses unviable as they were uncertain about the impact of the proposal on the viability of their business. These businesses included three retail stores, one eatery/café, one service station, one accommodation facility and one combined eatery and accommodation. Of these one business was for sale at the time of the survey for reasons not related to the proposal, the business owner was therefore unsure of the impact the proposal would have on the business.
- 11 per cent (five) businesses perceived that the likely reduction in passing trade would potentially make their businesses unviable, and may potentially close their business. These businesses included two retail stores, one eatery/café, one service station and one other type of business. Of these one business reported that they were already struggling and therefore perceived that any reduction in passing trade would likely result in closing of the business.
In addition, evidence from the literature review on the economic impact of bypasses suggests the impact of a bypass on local businesses would generally be short term, and majority of the businesses and towns recover from such short term impact because of a diverse economy, larger population base and implementation of various mitigation strategies as part of planning and preparation for the bypass.

Scone has a diverse economy with employment and business opportunities in a range of industry sectors such as horse/equine, tourism, agriculture (including sale yards), food processing (the abattoir), health services, administrative services (Upper Hunter Shire Council), education (schools, TAFE, equine research centre), mining and manufacturing/processing industrial estate. These economic activities are likely to continue to draw visitors to town who would create ongoing demand for goods and services provided by businesses in Scone town centre.

3.4.3 Additional management and mitigation measures

The following additional management and mitigation measures will be included as part of the proposal:

- Roads and Maritime will, in consultation with Upper Hunter Shire Council, provide appropriate support for plans to revitalise Scone town centre, for the purpose of encouraging motorists to continue to pass through or visit Scone. This will include measures such as streetscape and landscape treatments, subject to funding agreements for the project. Any streetscape and landscape treatments will be determined after finalisation of any town centre revitalisation plans.
- Roads and Maritime will develop a signage strategy for the entrances to Scone, in consultation with Upper Hunter Shire Council to encourage motorists to visit Scone. This will include signage showing:
  - The travel distances and estimated times for travelling routes via the bypass compared to travelling via the Scone town centre.
  - Services and facilities available within the Scone township.
  - Any visitor attractions within the Scone township.
- Town entrance signage impacted by the proposal would be relocated in consultation with Upper Hunter Shire Council.

3.5 Property acquisition

3.5.1 Summary

The refinements to the proposal design would slightly alter the footprint of impact, as shown in Figure 3.1. Consequently, there are some minor changes in the total acquisition areas required for the proposal as provided in Table 3-2 and Figure 3.1. This has been amended from Table 6-58 of the REF. The need for property acquisitions is still being investigated and would be further refined during the detailed design phase. Acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.

Roads and Maritime will consult with all directly affected landholders during the detailed design stage when property acquisition requirements are confirmed.

Roads and Maritime and GHD carried out interviews on 15 March 2016 with six private landholders proposed to be affected by property acquisition for the proposal. The results are detailed in the Supplementary SEIA (Appendix E). Property owners identified potential impacts resulting from property acquisition including loss of infrastructure and these are discussed below. Further information on the interviews and other identified potential agricultural impacts are discussed in Section 3.6 of this submissions report.
3.5.2 Potential impact

Property acquisition

Table 3-2 shows the changes to the property acquisition required for the proposal. The site where additional land is required is in the southern section of the proposal for the altered intersection arrangement. Additional environmental impact would mainly be associated with clearing of vegetation which is addressed in Section 3.3. Results of this assessment concluded the amendment would not impact on the findings and outcomes as presented in the REF.

<table>
<thead>
<tr>
<th>Property reference</th>
<th>Lot and DP</th>
<th>Existing land use</th>
<th>Ownership</th>
<th>Total area of lot (hectare)</th>
<th>Area of lot directly impacted (hectares)</th>
<th>Percentage of lot directly impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lot 1 DP 804243</td>
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<td>Lot 129 DP 5417</td>
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<td>Roads and Maritime Services</td>
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<td>1%</td>
</tr>
<tr>
<td>9</td>
<td>Lot 140 DP 5417</td>
<td>Agricultural (unformed council road)</td>
<td>Upper Hunter Shire Council</td>
<td>0.75</td>
<td>0.05</td>
<td>7%</td>
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<td>10</td>
<td>Lot 1 Sec 23 DP 758898</td>
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<td>0.81</td>
<td>100%</td>
</tr>
<tr>
<td>11</td>
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<td>Agricultural</td>
<td>Private</td>
<td>0.81</td>
<td>0.81</td>
<td>100%</td>
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<tr>
<td>12</td>
<td>Lot 1 DP 732158</td>
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<td>1.32</td>
<td>0.14</td>
<td>10%</td>
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<td>Existing land use</td>
<td>Ownership</td>
<td>Total area of lot (hectare)</td>
<td>Area of lot directly impacted (hectares)</td>
<td>Percentage of lot directly impacted</td>
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<td>Private</td>
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<td>0.10</td>
<td>50%</td>
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<td>18</td>
<td>Lot 200 DP 579923</td>
<td>Travelling stock route</td>
<td>State government</td>
<td>0.97</td>
<td>0.40</td>
<td>42%</td>
</tr>
<tr>
<td>19</td>
<td>Lot 2 DP 881852</td>
<td>Agricultural</td>
<td>Upper Hunter Shire Council</td>
<td>1.79</td>
<td>0.61</td>
<td>34%</td>
</tr>
<tr>
<td>20</td>
<td>Lot 1 DP 197254</td>
<td>Agricultural</td>
<td>Roads and Maritime Services</td>
<td>0.81</td>
<td>0.81</td>
<td>100%</td>
</tr>
<tr>
<td>21</td>
<td>Lot 106 DP 259201</td>
<td>Residential</td>
<td>Roads and Maritime Services</td>
<td>0.07</td>
<td>0.07</td>
<td>100%</td>
</tr>
<tr>
<td>22</td>
<td>Lot 11 DP 1204106</td>
<td>Rural residential</td>
<td>Roads and Maritime Services</td>
<td>0.60</td>
<td>0.60</td>
<td>100%</td>
</tr>
<tr>
<td>23</td>
<td>Lot 2 DP 197254</td>
<td>Agricultural</td>
<td>Roads and Maritime Services</td>
<td>0.81</td>
<td>0.81</td>
<td>100%</td>
</tr>
<tr>
<td>24</td>
<td>Lot 3 DP 857957</td>
<td>Rural residential</td>
<td>Roads and Maritime Services</td>
<td>1.23</td>
<td>1.23</td>
<td>100%</td>
</tr>
<tr>
<td>25</td>
<td>Lot 1 DP 1086721</td>
<td>Sports complex</td>
<td>Upper Hunter Shire Council</td>
<td>25.31</td>
<td>0.17</td>
<td>0.7%</td>
</tr>
<tr>
<td>26</td>
<td>Lot 17 Sec 4 DP 758898</td>
<td>Dog park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.10</td>
<td>50%</td>
</tr>
<tr>
<td>Property reference</td>
<td>Lot and DP</td>
<td>Existing land use</td>
<td>Ownership</td>
<td>Total area of lot (hectare)</td>
<td>Area of lot directly impacted (hectares)</td>
<td>Percentage of lot directly impacted</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------</td>
<td>-------------------</td>
<td>------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>27</td>
<td>Lot 18 Sec 4 DP 758898</td>
<td>Dog park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.20</td>
<td>100%</td>
</tr>
<tr>
<td>28</td>
<td>Lot 19 Sec 4 DP 758898</td>
<td>Dog park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.10</td>
<td>50%</td>
</tr>
<tr>
<td>29</td>
<td>Lot 2 DP 1118494</td>
<td>Park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.03</td>
<td>17%</td>
</tr>
<tr>
<td>30</td>
<td>Lot 3 DP 1118494</td>
<td>Park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.10</td>
<td>50%</td>
</tr>
<tr>
<td>31</td>
<td>Lot 4 DP 1118494</td>
<td>Park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.14</td>
<td>67%</td>
</tr>
<tr>
<td>32</td>
<td>Lot 5 DP 1118494</td>
<td>Park</td>
<td>Upper Hunter Shire Council</td>
<td>0.20</td>
<td>0.10</td>
<td>50%</td>
</tr>
<tr>
<td>33</td>
<td>Lot 202 DP 585078</td>
<td>Golf course</td>
<td>Upper Hunter Shire Council</td>
<td>16.84</td>
<td>1.54</td>
<td>9%</td>
</tr>
<tr>
<td>34</td>
<td>Lot 21 DP 11961</td>
<td>Golf course</td>
<td>Upper Hunter Shire Council</td>
<td>11.57</td>
<td>0.96</td>
<td>8%</td>
</tr>
<tr>
<td>35</td>
<td>Lot 22 DP 11961</td>
<td>Golf course</td>
<td>Upper Hunter Shire Council</td>
<td>9.89</td>
<td>1.42</td>
<td>14%</td>
</tr>
<tr>
<td>36</td>
<td>Lot 118 DP 5417</td>
<td>Agricultural</td>
<td>Private</td>
<td>0.40</td>
<td>0.15</td>
<td>37%</td>
</tr>
<tr>
<td>37</td>
<td>Lot 119 DP 5417</td>
<td>Agricultural</td>
<td>Private</td>
<td>0.40</td>
<td>0.21</td>
<td>52%</td>
</tr>
<tr>
<td>38</td>
<td>Lot 120 DP 5417</td>
<td>Agricultural</td>
<td>Private</td>
<td>0.40</td>
<td>0.25</td>
<td>61%</td>
</tr>
<tr>
<td>Property reference</td>
<td>Lot and DP</td>
<td>Existing land use</td>
<td>Ownership</td>
<td>Total area of lot (hectare)</td>
<td>Area of lot directly impacted (hectares)</td>
<td>Percentage of lot directly impacted</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------</td>
<td>-------------------</td>
<td>----------------------------</td>
<td>-----------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>39</td>
<td>Lot 117 DP 5417</td>
<td>Agricultural</td>
<td>Private</td>
<td>0.40</td>
<td>0.02</td>
<td>5%</td>
</tr>
<tr>
<td>40</td>
<td>Lot 2 Sec 1 DP 758898</td>
<td>Park</td>
<td>State government</td>
<td>0.20</td>
<td>0.03</td>
<td>17%</td>
</tr>
<tr>
<td>41</td>
<td>Lot 102 DP 1093507</td>
<td>Agricultural</td>
<td>Upper Hunter Shire Council</td>
<td>22.34</td>
<td>0.36</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Loss of infrastructure**

The private landholder interviews identified a range of impacts associated with loss of specific infrastructure. Details are provided in the Supplementary SEIA (Appendix E) and include:

- Impact to the driveway to the St Aubins homestead, pepper trees along the driveway, mailbox and fences
- Loss of a groundwater well
- Loss of boundary fences
- Loss of a shed and cattle yards
- Impact to utilities.

### 3.5.3 Additional management and mitigation measures

The following additional management and mitigation measures will be included as part of the proposal:

- Complete property adjustments for fencing, driveways/access and other property infrastructure impacted by the proposal in consultation with affected property owners, including any adjustments identified during land acquisition.
Figure 3.1

LEGEND

- Property of interest
- Property acquisition boundary
- Lot boundaries
- Railway

Roads and Maritime Services
New England Highway Bypass at Scone
Submissions Report
Property Acquisition
Sheet 1 of 4


G\22\17554\GIS\Maps\Deliverables\SubmissionsReport\2217554_SR001_DDP_PropertyAcquisition_0.mxd

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Level 3, GHD Tower, 24 Honeyeuckle Drive, Newcastle NSW 2300 T 61 2 4979 9999 F 61 2 4979 9988 E tmlmail@ghd.com W www.ghd.com.au

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56
Paper Size A4

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**LEGEND**

- Property of interest
- Property acquisition boundary
- Lot boundaries
- Railway

---

**Figure 3.1**

G:\22\17554\GIS\Maps\Deliverables\SubmissionsReport\2217554_SR001_DDP_PropertyAcquisition_0.mxd

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Jobs Number: 22-17554
Revision: 0
Date: 20 Apr 2016

Roads and Maritime Services
New England Highway Bypass at Scone
Submissions Report
Property Acquisition
Sheet 4 of 4


Level 3, GHD Tower, 24 Honeyeuckle Drive, Newcastle NSW 2300 T 61 2 4979 9999 F 61 2 4979 9988 E ntimail@ghd.com W www.ghd.com.au

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

Paper Size A4
0 20 40 60 80 120 160 Metres

3.6 Agricultural impact

3.6.1 Summary
The agricultural impact assessment and SEIA were carried out as part of the REF for the proposal and included in Section 6.10 and Appendix K of the REF respectively. These assessments considered the property acquisition required for the proposal and the potential agricultural and socio-economic impacts as a result of this.

Submissions received as part of the REF public display identified further information about potential impact to the viability of agricultural lands was required. To address this, additional private landholder consultations were carried out on 15 March 2016.

Private landholder consultations
Roads and Maritime and GHD carried out interviews on 15 March 2016 with six private landholders proposed to be affected by property acquisition for the proposal. The results are detailed in the Supplementary SEIA (Appendix E).

The purpose of landholder consultations was to:
- Inform private landholders about the location and extent of potential land acquisition on their property with the aid of property maps
- Discuss current land use and activities on the whole property, with a focus on the area under potential acquisition and future aspirations with regard to the property
- Discuss potential impact to property, such as:
  - Changes to access
  - Changes to land use, activities on the property, function, productivity and viability of the property
  - Changes to amenity
- Discuss adaptation/impact management strategies to continue function, productivity and viability.

3.6.2 Potential impact

Property acquisition impact
Property owners identified potential impact resulting from property acquisition including loss of infrastructure, severance resulting in fragmentation, changes to how the property is used or managed, ongoing viability issues, access restrictions, economic impact, amenity and heritage impact. The potential impact to each property is discussed in detail in the Supplementary SEIA (Appendix E). Additional potential impact common across the private property owners included:

- **Emotional attachments, stress and anxiety** - several property owners raised the impact on their emotional health as a result of personal attachment to their property, uncertainty around the property acquisition process, implications for the viability of their related agricultural businesses and amenity and lifestyle impact resulting from living next to a major highway when the proposal is operational.
- **Property values** - most property owners raised the potential impact the construction and operation of the proposal would have on the value of their property. This was related to the proximity of the bypass to the residence and the resultant negative impact on the amenity and lifestyle of the property. Many aspects influence property values such as location and use. It is recognised that properties affected by the proposal may be difficult to market before completion of construction due to uncertainty of environmental impact.
- **Amenity and lifestyle** - there is concern from private property owners about potential amenity impact including noise, air quality and visual impact relating to the proposal. Amenity impact has been discussed in Sections 6.5, 6.6 and 6.9 of the REF and additional information is provided in Sections 2 and 3 of this submissions report.
• **Flooding and drainage** - there is concern from private property owners about excess flooding and water runoff. Flood modelling was carried out for the REF and revised to account for the design changes. The results of the additional modelling are presented in Section 3.9 of this submissions report.

• **Access to properties** - there would be temporary impact on access to some private properties during construction. The locations and types of access changes would be established during the detailed design phase. Any changes to access during the construction phase would result in temporary impact to property owners and residents. During operation, there would be changes to access to some private properties, with the exact locations and types of access changes to be refined during detailed design. Design changes have been made as a result of submissions (refer to Section 4 of this submissions report). These changes will provide appropriate access to specific properties. These design changes address the concerns in relation to potential access and safety issues.

### Agricultural land

As outlined in 3.1, a number of design changes have been made to the proposal. This has resulted in a revised REF proposal boundary (as shown in Figure 1.2) and therefore the agricultural land within the proposal has slightly changed. The following table is an amendment to Table 6-55 as shown in the REF. The results of this change in agricultural land are not anticipated to impact the results as presented in the REF.

Table 3-3 Agricultural land within the proposal site

<table>
<thead>
<tr>
<th>Type</th>
<th>Area within local government area (hectares)</th>
<th>Area within proposal site (hectares)</th>
<th>Revised area (hectares)</th>
<th>Area within proposal site as a % of land within local government area</th>
<th>Revised area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RU4 - Rural Small Holdings</td>
<td>809,919</td>
<td>20.0</td>
<td>20.9</td>
<td>0.002</td>
<td>0.003</td>
</tr>
<tr>
<td>Biophysical strategic agricultural land</td>
<td>149,205</td>
<td>31.8</td>
<td>32.8</td>
<td>0.021</td>
<td>0.022</td>
</tr>
<tr>
<td>Critical industry cluster (equine)</td>
<td>180,430</td>
<td>21.7</td>
<td>22.7</td>
<td>0.012</td>
<td>0.013</td>
</tr>
</tbody>
</table>

### 3.6.3 Additional management and mitigation measures

The following additional management and mitigation measures will be included as part of the proposal:

- The impact of land acquisition will be assessed in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the *Land Acquisition (Just Terms Compensation) Act 1991*. Impact from the acquisition on owners remaining holdings will be considered in this process. As required and in consultation with owners, Roads and Maritime will engage the use of appropriately qualified professionals to assess the impact and identify alternate opportunities for their remaining holdings.
• Roads and Maritime will manage its residual land in accordance with Roads and Maritime’s disposal process. In accordance with this process, and in conjunction with acquisition negotiations consideration will be given to landowners requests for land swaps to return farmland
• Roads and Maritime will continue to contact the remaining landowner impacted by property acquisition to arrange for an interview as per Section 2 of the Supplementary SEIA (Appendix E) to determine the need for any additional mitigation measures.

3.7 Community facilities

3.7.1 Summary
GHD conducted a telephone interview with Upper Hunter Shire Council on 6 April 2016 to discuss potential impact associated with Council managed community facilities.

GHD met with the Scone and District Netball Association on 16 March 2016, who lease the netball courts at the Bill Rose Sports Complex. While the courts are not proposed to be subject to acquisition it is likely two of the courts on the eastern side would need to be closed during construction of the overbridge which is located immediately on the eastern edge of the courts.

A submission was also received in relation to the proximity of the proposal to the rugby union field and the risk of balls landing on the bypass. As a result of further assessment an additional mitigation measure has been identified and is included below.

3.7.2 Potential impact
The proposal would impact on the Bill Rose Sports Complex (netball courts, playing field and playground) and a dog park on Liverpool Street, which are community facilities managed by Upper Hunter Shire Council. A summary of potential impact is provided below and detailed in the Supplementary SEIA (Appendix E).

Bill Rose Sports Complex (playing field)
The playing field would be permanently lost as a result of land acquisition for the construction of the overbridge. The loss of the playing field would impact on the fitness and yoga groups, who would be required to find an alternate outdoor space for classes. Council identified that the changes to Bill Rose Sports Complex resulting from the proposal may present an opportunity for preparation of a masterplan for the park. The masterplan would identify an alternate, more central location within the complex for the playing field. The masterplan would also identify the potential for higher quality facilities, such as a new playing field.

Bill Rose Sports Complex (playground and outdoor gym)
The playground and outdoor gym areas would be permanently impacted by the proposal through acquisition and there would be likely temporary restrictions on use of the residual land for safety reasons during construction. The residual land would not be suitable for similar use during operation of the proposal due to it being directly beneath the overbridge and limited space to redevelop the playground and gym areas in the same location. Council identified that the changes to Bill Rose Sports Complex resulting from the proposal may present an opportunity for preparation of a masterplan for the park. The masterplan would identify an alternate, more central location within the complex for the play area and playground. The masterplan would also identify the potential for higher quality facilities, such as a new playground and outdoor gym area.
**Dog park**

The dog park would be subject to partial acquisition (about 60 percent of the existing park area, refer to Table 3-2). The dog park would be unavailable for use during construction and the residual area may also be closed for safety reasons. The existing shared path would also be unavailable during construction. Subject to detailed design and final placement of the overbridge piers, normal activities are likely to be able to resume beneath the overbridge after construction. Council identified the park would continue to be used by the community as a dog park and pathway after the overbridge is completed. Council also has a vision to embellish the area including providing a cycle path to connect to other pathways outside of the park.

**White Park**

Due to the proximity of White Park to the proposal, it is likely that users of the park would experience amenity impact during construction, such as noise, air quality changes and visual changes.

There is potential that noise from construction activities may disrupt some activities within the park. The noise modelling indicates construction noise levels have the potential to exceed the relevant criteria at White Park, particularly during clearing, earthworks and pavement activities. The modelling indicates the relevant criteria could be exceeded within generally the southern half of White Park but not the stables or adjacent areas.

The operation of the proposal would lead to noise and visual changes for users of the park. Noise modelling indicates the relevant criteria could be exceeded during operation within generally the southern edges of White Park but not the stables or adjacent areas. White Park is already subject to existing noise impact from the Great Northern Railway. Noise impact during operation of the proposal was not raised as an issue by Council or the Hunter Thoroughbred Breeders Association and Australian Stock Horse Society during consultation for the proposal.

Sensitive receivers closest to the construction area have the highest potential for adverse air quality impact. Dust emissions during construction are typically sufficiently managed through the application of mitigation measures. Dust management measures have been outlined in the REF to help minimise off-site impact during the construction stage of the proposal.

Section 6.3 of the REF provides an assessment of air quality impact associated with the operation of the proposal, including modelling of and assessment of vehicle emissions in accordance with Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (the Approved Methods) (DEC 2005). The approved methods include impact assessment criteria for a range of pollutants set on the basis of scientific studies of air quality and human health from all over the world, as well as the standards set by other organisations, such as the World Health Organization.

Air emissions during operation of the proposal were identified to consist of products of combustion (exhaust) and particulate matter. Emissions which were assessed were Carbon monoxide (CO), Oxides of nitrogen (NOx) and particulate matter (PM$_{10}$). Air emissions were modelled at the kerb and at 10 metres, 20 metres, 50 metres and 100 metres from the kerb. The modelling predicted emissions would comply with the impact assessment criteria.
Bill Rose Sports Complex (netball courts)

The Scone and District Netball Association use the netball courts at the Bill Rose Sports Complex. The Association identified potential impact on the Association and players resulting from the potential for access to the courts to be reduced during construction of the overbridge. A summary of the potential impacts is provided below and detailed in the Supplementary SEIA (Appendix E):

- It is likely two smaller courts on the eastern side of the complex would need to be closed during construction of the overbridge, which is located immediately on the eastern edge of the courts. This would result in a short term impact on access to the courts by the netball association and their members, and the schools and students which use the courts. The loss of access to these courts may lead to changes in how these groups run training sessions. Construction activities within the vicinity of the courts may lead to noise and dust impacts which may interrupt training sessions.
- There is also the possibility there would be a need to close all six courts during construction. This need would be identified during detailed design. As there are no other netball courts in Scone, the loss of all courts would impact the netball association, which would lose income from memberships for the duration of the construction period. The netball association may also lose members if they choose to join other regional associations (e.g. Muswellbrook) for the duration of the construction period.
- The students from Scone Grammar School and public schools which use the courts for training, and the fitness groups which use them for classes, would also be negatively impacted by the loss of access to the courts.
- The loss of the courts would also have a negative impact for players who would either have to travel outside of Scone to continue to play, or stop playing netball for the duration of construction.
- Loss of access to the courts may also have a broader negative social and health impact for netball players who may lose opportunities for social interactions and participation in sport.

3.7.3 Additional management and mitigation measures

The following additional management and mitigation measures will be included as part of the proposal:

- Roads and Maritime will carry out further consultation with the user groups of White Park to identify potential construction and operational impacts and develop appropriate mitigation.
- Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council and Scone and District Netball Association, will provide for the temporary relocation of the impacted netball courts to an equivalent or better standard, inclusive of both impacted area and associated facilities.
- Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the relocation or replacement of the impacted playing field and park within the Bill Rose Sports Complex to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.
- Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the temporary relocation or replacement of the impacted dedicated off-leash dog park between Liverpool Street and Kingdon Street to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.
Prior to the facilities being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the relocation or replacement of the impacted play and gym equipment currently located on Kingdon Street to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.

Access along the Liverpool Street bike track will be maintained during construction. Where access along the bike track is unable to be maintained a safe alternative route will be provided.

Roads and Maritime will install fencing on the boundary of the proposal and the rugby field in Susan Street, in consultation with Upper Hunter Shire Council and Scone Rugby Club. This fencing is to be suitably designed to retain balls within the rugby field.

3.8 Noise modelling

3.8.1 Summary

The noise and vibration impact assessment was carried out as part of the REF for the proposal and included in Section 6.5 and Appendix G of the REF. Due to the design refinements as outlined in Section 3.1, additional noise modelling has been carried out. The results of this modelling is provided below and should be read in conjunction with the REF.

Methodology

Noise modelling was conducted based on the revised proposal design which included the following design changes:

- Right-hand turning lane at northern end of bypass
- Updated left-hand slip lane turning into St Aubins Street
- South underpass option.

In addition to the above key changes, minor refinements to the proposal design included lane widening, slight lane alignment and elevation changes.

The refinements to the proposal design used in the updated noise model are shown in Figure 3.2 and Figure 3.3. Further details of the design changes are provided in Section 4.

All other noise modelling parameters remain as provided in the REF.

The methodology for the operational road traffic noise assessment included modelling of the following cases:

- Year 2017 ‘no build option’ (traffic flow on the existing alignment for year opening)
- Year 2027 ‘no build option’ (traffic flow on the existing alignment 10 years after opening)
- Year 2017 ‘build option’ (proposed design for year opening)
- Year 2027 ‘build option’ (proposed design 10 years after opening).

These models were used to assess compliance with the noise criteria defined in the REF and assess the potential change in road traffic noise at identified sensitive receivers with consideration to the previous noise model results conducted for the REF.
**Results**

The updated day and night-time predicted receiver noise levels for the ‘build option’ for year 2017 and year 2027 are presented in Figure 3.2 and Figure 3.3. Results presented for the ‘no-build option’ 2017 and 2027 remain unchanged from the REF. The results shown in Figure 3.3 represent receivers where a predicted change of more than 0.5 dB is predicted due to the updated proposal design. This is also shown graphically in Figure 3.2 which shows receiver locations where predicted noise levels have changed more than 0.5 dB between the previous and updated designs for the unmitigated case (ie no barriers). The façade colour coding indicates the magnitude of the change in decibels. It should be noted that some receivers experience a decrease in noise level (shown as negative dB values) while other receivers experience an increase in noise level (shown as positive dB values).

Receiver façade locations have also been identified in Figure 3.3 showing where criteria are predicted to be exceeded before and after implementation of the barriers at the design heights identified previously in the REF. The facades shown as ‘red’ indicate mitigation is triggered, and ‘blue’ indicates mitigation is still triggered with barriers implemented.

Previous noise model results shown in Table 9-4 of the REF indicated 83 receivers qualified for mitigation. The updated noise model results indicate that for the scenario modelled, three previous receivers are now excluded from qualifying for mitigation and one additional receiver now qualifies for mitigation as follows:

- Three receivers, the Bill Rose Sports Complex (REC_005) and two residential receivers (RR_448 and RR_524), no longer qualify for mitigation
- One receiver, the Scone Primary School (EDU_346) – now qualifies for mitigation, however other buildings at this educational receiver previously also qualified.
<table>
<thead>
<tr>
<th>Receiver ID</th>
<th>Floor</th>
<th>Facade</th>
<th>No build 2017 (day)</th>
<th>No build 2017 (night)</th>
<th>No build 2027 (day)</th>
<th>No build 2027 (night)</th>
<th>Build 2017 (day)</th>
<th>Build 2017 (night)</th>
<th>Build 2027 (day)</th>
<th>Build 2027 (night)</th>
<th>Criteria (day)</th>
<th>Criteria (night)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC_005</td>
<td>n/a</td>
<td>n/a</td>
<td>45</td>
<td>38</td>
<td>45</td>
<td>39</td>
<td>59</td>
<td>55</td>
<td>60</td>
<td>55</td>
<td>60</td>
<td>n/a</td>
</tr>
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</table>
3.8.2 Potential impact

The updated noise modelling results indicate the following:

- Generally, there is less than 0.5 dB difference between the updated and previous design. This can be attributed to the minor elevation, widening or lane changes.
- In total there are 33 assessment locations including receiver facades and recreational areas with a difference of 0.5 dB or greater predicted between the updated and previous design. This represents around one per cent of assessment locations which highlights the minor change in predicted noise levels across the study area. Additionally, locations where increases are predicted between designs have minimal implications for noise as their received levels are generally much lower than the criteria.
- Previously, noise model results indicated 83 receivers qualified for mitigation.
- The updated proposal design model results indicate a net reduction of two receivers to a total of 81 receivers qualifying for mitigation. It is noted that a minor change in predicted noise level of as little as 0.1 dB may influence the qualification of a receiver for assessment of mitigation options.

3.8.3 Additional management and mitigation measures

No additional mitigation measures beyond those already defined in the REF are required.

- Where there is a risk vibration activities may cause damage to nearby structures and buildings, Roads and Maritime will carry out a building condition inspection and prepare a Building Condition Inspection Report for every property or structure likely to be affected.
LEGEND

Proposal site
Railway
Watercourse
The proposal

Noise difference
-0.5 to 0.0
0.0 to 0.5
0.5 to 1.0
1.0 - 1.5
> 1.5
-0.1 to -0.5
-1.5 to -1.0
-1.5
 Mitigation locations

3.9 Flood modelling

3.9.1 Summary

Extensive flood modelling, taking into account the bypass alignment and fill embankment, has established a marginal difference between the 1 in 20 year and 1 in 100 year flood levels. The flood modelling is based on available data, including previous flood modelling work by Council and historical records. The assessment has been done to quantify potential impact. As such it has been based upon previous studies.

The results of modelling of changed flood conditions for the one in 20 and one in 100 year flood events (refer to Section 6.4 of the REF) indicate that for both events there would be an increase in the depth of flooding in areas generally to the west of the proposal and in the vicinity of the showground, while there would be a decrease to the east of the proposal generally in the vicinity of Aberdeen Street.

The southern intersection has now been modified to provide a grade separation (underpass) for vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic. The northern intersection has been modified to provide right turn facilities for northbound bypass traffic. The intersections have been designed to current standards and traffic modelling indicates that the intersections operate well (level of service A ten years after opening) for all turning movements.

Additional modelling has been carried out as part of this submissions report. This modelling involved the inclusion of the revised southern intersection and also other localised changes to intersection treatments into the proposed built for and the modelling of flood impact for the 20 and 100 year ARI events. Revised flood maps are provided in Figure 3.4 and Figure 3.5.

3.9.2 Potential impact

The revised modelling did indicate a localised impact on flood levels as a result of the design changes but these did not extend far enough to impact residences, commercial buildings or any land outside the proposed road corridor. The potential impact discussed in the REF (refer to Section 6.4 of the REF) are otherwise unchanged.

Results of the modelling indicated the southern intersection underpass of the proposal would be closed in a 100 year ARI event with water over both carriageways. This is not considered as being a significant issue as access is still available into and out of Scone by alternate routes and, if required, contraflow could be implemented for a short period at the southern intersection.

Results for the 20 year ARI event also showed water within the underpass but the depth of flow was predicted to be relatively low at between 150 and 500 millimetres over the travel lanes. Heavy vehicles could, in that short (few minutes) period of maximum water depth, potentially still use the underpass but lighter vehicles would need to take a diversion in and out of Scone.

3.9.3 Additional management and mitigation measures

The following additional management and mitigation measures will be included as part of the proposal:

- During detailed design, Roads and Maritime will identify mitigation measures to be implemented where increased flooding is predicted to adversely affect access, property or infrastructure.
LEGEND

- Proposal site
- Change in flood level (m)
  - Decrease in flood level (<-50mm)
  - No change in flood level (+-50mm)
  - Increase in flood level (>+50mm)
- Railway
- Watercourse

Roads and Maritime Services
New England Highway Bypass at Scone
Submissions Report
20 yr ARI Flooding
Change in Inundation Level

Figure 3.4


© Whilst every care has been taken to prepare this map, GHD, LPI & RMS make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

G:\22\17554\GIS\Maps\Deliverables\SubmissionsReport\2217554_SR006_FloodingInundation_20yr_Proposed_0.mxd
LEGEND

- Proposal site
- Railway
- Watercourse

Change in flood level (m)
- Decrease in flood level (<-50mm)
- No change in flood level (+-50mm)
- Increase in flood level (>+50mm)
3.10 Land use and property

3.10.1 Summary
As outlined in Section 3.1, a number of design changes have been made to the proposal in response to the submissions received. This has resulted in a revised REF proposal boundary (as shown in Figure 1.2) and therefore the land use zone impacted within the proposal has slightly changed. The following table is an amendment to Table 6-57 as shown in the REF.

3.10.2 Potential impact
The results shown in Table 3-5 show a minor increase in land impacted by the proposal. This is mostly due to the revised southern intersection arrangement which requires additional land zoned as RU4 and B4. This minor increase would not impact on the findings as presented in the REF.

Table 3-5 Land use within the proposal site

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<th>Revised impacted area (hectares)</th>
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<td><strong>Total</strong></td>
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3.10.3 Additional management and mitigation measures
No additional mitigation measures are required as a result of this change.
4 Changes to the proposal

As a result of the consultation during display of the REF the following design refinements have been made to the proposal (refer to Figure 1.1).

4.1 Access to private property at southern end of proposal

A revised access arrangement for the St Aubins private property has been designed to address submissions (refer to Figure 4.1). Safe access to and from this property in the 100 kilometres per hour signposted speed zone has been raised as an issue. A revised arrangement has been developed to help with safe access to and from the property and to provide direct access across the highway. Ongoing consultation with the property owner will be held throughout the detailed design phase to refine final access arrangements.

Figure 4.1 Southern private property access
4.2 Southern intersection arrangement

Safe access to and from Scone, including no provision of a right turn out from Scone has been raised as an issue for the southern intersection arrangement. As a result, the intersection arrangement has undergone a revision. The revised design is shown in Figure 4.3 and a new visual montage has been prepared for this intersection (Figure 4.3).

Southbound exit from Scone towards Aberdeen remains as previously proposed, utilising the existing highway alignment. An underpass has now been introduced to provide safer entry in and out of Scone. Northbound vehicles wishing to enter Scone now utilise an offload ramp and pass under the bypass, connecting to Kelly Street in the vicinity of St Aubins Arms. Vehicles wishing to exit Scone and travel north on the bypass also utilise the underpass (two-way road) and join the bypass south of the underpass bridge. This arrangement provides a safer solution as vehicles will not turn across opposing lanes and traffic. A left turn lane for southbound traffic to enter Scone is still provided. This intersection arrangement will be developed further during the detailed design phase.

Figure 4.2 Southern intersection arrangement
Figure 4.3 Southern intersection arrangement – photomontage
4.3 Access to Scone golf course

Access to the Scone golf course has been further developed since display of the REF (refer to Figure 4.4). Connection between the clubhouse and the golf course has been provided under the first span of the bridge over Parsons Gully. Temporary connection throughout the construction of the bypass at this location will be developed during detailed design in consultation with the golf club.

Figure 4.4 Scone golf course access arrangement
4.4 St Aubins Street intersection arrangement

At this location the southbound left turn lane into Scone has been moved further away from the intersection, to provide a safer provision for vehicles exiting St Aubins Street in both a southerly and northerly direction (left and right turn out) (refer to Figure 4.5). This has been provided as a further safety improvement for the intersection arrangement since the display of the REF.

![St Aubins Street intersection arrangement](image)

Figure 4.5 St Aubins Street intersection arrangement
4.5 Widening of Aberdeen Street to assist left turn into St Aubins Street

In addition to the St Aubins Street intersection arrangement (refer to Figure 4.5), widening of Aberdeen Street on approach to St Aubins Street has been provided to assist left turn movements into St Aubins Street (refer to Figure 4.6).

Figure 4.6 Widening of Aberdeen Street

4.6 Refined access arrangements to private property

The proposed access to the private property on the western side of the highway near the northern end of the proposal has been further refined (refer to Figure 4.7). Access is still provided by a new road on the western side of, and running parallel with the bypass, and has been extended slightly to cross Parsons Gully. Roads and Maritime will continue to liaise with the property owner during detailed design.
4.7 Travelling stock route

The existing travelling stock route will be realigned to include the provision of a new underpass for movement of stock (refer to Figure 4.7). A detailed arrangement for the travelling stock route, including a cross section, is provided in Figure 4.8.

Roads and Maritime will continue to liaise with Local Land Services during detailed design to maintain connectivity for travelling stock route. This will include provision of suitable arrangements during construction which could include early construction of the underpass and/or temporary cessation of work in the vicinity when stock movements are required.

4.8 Northern intersection arrangement

The lack of provision of a northbound right turn lane into Scone at this intersection arrangement has been raised in submissions as an issue. As a result, a northbound right turn lane has been added to the intersection to assist access to the northern area of Scone (refer to Figure 4.7). The connecting leg to the intersection now becomes two-way to accommodate incoming vehicles from the right turn provision. Right and left turn out at the intersection remains as shown in the REF.

![Figure 4.7](image_url)

**Figure 4.7** Northern intersection arrangement, altered access arrangement to private property and travelling stock route
Proposed culvert under Bypass for travelling stock route. See insert.
4.9 Access to private property at northern end of proposal

An altered access has been designed to provide access to the private property on eastern side of the existing New England Highway near the northern end of the proposal (refer to Figure 4.9). The southbound left turn provision remains as shown in the REF, however a revision to the location of the roundabout type and location of this facility has been carried out to provide for access to private property.

Figure 4.9 Amended access to private property
5 Environmental management

The REF for the proposal identified the framework for environmental management, including management and mitigation measures that will be adopted to avoid or reduce environmental impacts (refer to Section 7 of the REF).

After consideration of the issues raised in the public submissions and changes to the proposal, the safeguards and management measures have been revised.

Should the proposal proceed, environmental management will be guided by the framework and measures outlined below.

5.1 Environmental management plans

A number of safeguards and management measures have been identified in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these management measures would be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Project Environmental Management Plan (PEMP) and a Contractors Environmental Management Plan (CEMP) will be prepared to describe safeguards and management measures identified. These plans will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The plans will be prepared before construction of the proposal and must be reviewed and certified by environment staff, Freight and Regional, before the start of any on-site work. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements. The CEMP and PEMP would be developed in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System), QA Specification G38 – Soil and Water Management (Soil and Water Plan) and the QA Specification G40 – Clearing and Grubbing.

5.2 Summary of safeguards and management measures

The REF for the New England Highway bypass at Scone identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

After consideration of the issues raised in the public submissions, the environmental management measures for the proposal (refer to Chapter 7 of the REF) have been revised. Should the proposal proceed, the environmental management measures in Table 5-1 will guide the subsequent phases of the New England Highway bypass at Scone. Additional and/or modified environmental safeguards and management measures to those presented in the REF have been underlined and deleted measures, or parts of measures, have been struck out.
Table 5-1: Summary of site specific environmental safeguards

<table>
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<th>No.</th>
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<th>Environmental safeguards</th>
<th>Responsibility</th>
<th>Timing</th>
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</table>
| 1   | General| General| All environmental safeguards from the REF must be incorporated within the following:  
• Project Environmental Management Plan  
• Detailed design stage  
• Contract specifications for the proposal  
• Contractor’s Environmental Management Plan | Roads and Maritime | Pre-construction |
| 2   | General| General| Any works resulting from the proposal and as covered by the REF may be subject to environmental audit(s) and/or inspection(s) at any time during their duration. | Roads and Maritime | Pre-construction and Construction |
| 3   | General| General| The environmental contract specification must be forwarded to the Roads and Maritime Environment Officer Freight and Regional Manager Hunter Region for review at least 10 working days prior to the tender stage.  
A contractual hold point must be maintained until the CEMP is reviewed by the Roads and Maritime Environment Officer Freight and Regional Manager Hunter Region. | Roads and Maritime | Pre-construction |
<p>| 4   | General| General| The Roads and Maritime Project Manager must notify the Roads and Maritime Environment Officer Freight and Regional Manager Hunter Region at least five working days prior to work commencing. | Roads and Maritime | Pre-construction |
| 5   | General| General| All businesses and residences likely to be affected by the proposal must be notified at least five working days prior to the commencement of the proposed activities. | Roads and Maritime | Pre-construction |</p>
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<tr>
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<tr>
<td>6</td>
<td>General</td>
<td>General</td>
<td>Environmental awareness training must be provided, by the contractor, to all field personnel and subcontractors.</td>
<td>Construction contractor</td>
<td>Pre-construction and Construction</td>
</tr>
<tr>
<td>7</td>
<td>Traffic and Access</td>
<td>Access to properties</td>
<td>Residents and businesses will be notified of any specific impacts to property access and arrangements required during construction. Roads and Maritime will continue to consult with all properties that will have altered access following construction of the proposal.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Altered traffic patterns</td>
<td>Roads and Maritime will continue to consult with residents likely to be affected by increased traffic on St Aubins and Aberdeen streets to minimise amenity impacts and address safety concerns.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Construction traffic management</td>
<td>A detailed construction traffic management plan will be prepared in accordance with Traffic Control at Work Sites Manual Version 4 (RTA 2010) and Specification G10 - Control of Traffic. The plan will be approved by Roads and Maritime before implementation to provide a comprehensive and objective approach to minimise any potential impacts on road network operations during construction.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
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| 10  | Traffic                       | The plan will focus on maintaining general traffic flow and providing appropriate site accesses and construction traffic routes and will include measures such as: | - Access routes and signage  
- Hours of operation, including prohibitions on queuing outside sites prior to commencement of working hours  
- Restrictions on delivery times and access (arterial roads would be used wherever possible)  
- Special control arrangements (such as warning signs or lights) at site accesses  
- Road safety audit requirements  
- Any localised improvements/adjustments to existing traffic management arrangements  
- Arrangements for pedestrians and cyclists.  
- The plan will be reviewed if complaints are received. | Construction contractor          | Pre-construction |
<p>| 11  | Congestion and safety         | Traffic control will be provided in accordance with the approved construction traffic management plan to manage and regulate traffic movements during construction. |                                                                                                                                                                                                                         | Construction contractor              | Construction    |
| 12  | Access to properties          | Property access will be maintained at all times where practicable.      |                                                                                                                                                                                                                         | Construction contractor and Roads and Maritime | Construction    |
| 13  | Access to properties          | Where changes to access arrangements are necessary, Roads and Maritime will advise owners and tenants and consult with them in advance regarding alternate access arrangements. |                                                                                                                                                                                                                         | Construction contractor and Roads and Maritime | Construction    |
| 14  | Pedestrian and cyclist access | Pedestrian and cyclists connectivity across the site will be maintained during construction. |                                                                                                                                                                                                                         | Construction contractor              | Construction    |</p>
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<tr>
<td>15</td>
<td>Biodiversity</td>
<td>Potential impacts to Parsons Gully</td>
<td>Roads and Maritime will carry out further consultation with DPI (Fisheries) during detailed design to confirm any specific requirements for approvals under the FM Act.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Direct impacts to native vegetation</td>
<td>Where possible, minimise the clearing of mature trees, in particular hollow-bearing and habitat trees.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Potential for artificial lighting impacts on native fauna</td>
<td>Design of all permanent lighting to minimise light spill and the associated secondary impact on nocturnal fauna species potentially utilising the area.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Potential impacts on native flora and fauna</td>
<td>A construction environmental management plan will be developed for the construction phase of the proposal. The construction environmental management plan will be prepared and implemented in accordance with the Roads and Maritime Biodiversity Guidelines (RTA 2011) and include the procedures outlined below.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td>Protocols for clearing of vegetation will be developed and implemented in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 4: Clearing of vegetation and removal of bushrock) (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Potential for spread of exotic or invasive species, or spread of</td>
<td>Protocols for preventing or minimising the spread of noxious and environmental weeds will be developed and implemented in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 6: Weed Management) (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>21</td>
<td></td>
<td>pathogens that may be harmful to native biota</td>
<td>Protocols for preventing the introduction and/or spread of disease causing agents such as bacteria and fungi will be developed and implemented in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 7: Pathogen Management) (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>22</td>
<td></td>
<td>Potential for erosion and sediment removal into wetlands and creeks</td>
<td>Protocols for minimising impacts on aquatic habitat will be developed and implemented in accordance with Roads and Maritime Biodiversity Guidelines (Guide 10: Aquatic habitats and riparian zones) (RTA 2011). This will also include relevant measures from the Office of Water Guidelines for Riparian Corridors on Waterfront Lands and Guidelines for Vegetation Management Plans.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>23</td>
<td></td>
<td></td>
<td>Temporary stockpiles to be restricted to the construction area and identified construction compounds, in areas of cleared land and exotic grassland and managed to ensure no offsite impacts of dust generation or sedimentation.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td>Remove from site any excavated material not required for backfilling as soon as practical.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>25-24</td>
<td></td>
<td>Potential for direct impacts on native fauna species</td>
<td>A pre-clearance procedure will be developed and implemented in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 1: Pre-clearing process) (RTA 2011) and include (but not limited to) inspection of hollow trees prior to removal.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>26-25</td>
<td></td>
<td></td>
<td>Fauna handling will be conducted in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 9: Fauna handling) (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>27-26</td>
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<td>Any unexpected threatened species finds will be dealt with in accordance with the Roads and Maritime Biodiversity Guidelines (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>28-27</td>
<td></td>
<td></td>
<td>Exclusion zones are to be identified and demarcated in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 2: Exclusion zones) (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>29-28</td>
<td></td>
<td>Direct impacts to native vegetation</td>
<td>Protocols for the re-establishment of native vegetation is to be developed in accordance with the Roads and Maritime Biodiversity Guidelines (Guide 3: Re-establishment of native vegetation) (RTA 2011).</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>Potential for artificial lighting impacts on native fauna</td>
<td>Using down-lights and motion sensor lighting during construction in order to reduce light spill and the associated secondary impact on nocturnal fauna species potentially utilising the area.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td>Potential impacts on flying-foxes during construction</td>
<td>Monitoring will be carried out to determine the presence of Flying-foxes, including Grey-headed Flying-foxes, prior to commencement of construction.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
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<tr>
<td>30</td>
<td></td>
<td></td>
<td>If flying-foxes are identified in the vicinity of the proposal, a flying-fox management plan will be prepared and implemented during construction. The plan will detail site-specific mitigation and management measures.</td>
<td>Construction contractor</td>
<td>Pre-construction Construction</td>
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| 31  | Geology and Soils          | Erosion and sedimentation    | A soil and water management plan will be prepared as part of the construction environmental management plan in accordance with the requirements of Roads and Maritime contract specification G38 prior to the commencement of construction. The soil and water management plan will address the following:  
- Roads and Maritime Code of Practice for Water Management, the Roads and Maritime Erosion and Sedimentation Procedure  
- The NSW Soils and Construction – Managing Urban Stormwater Volume 1 ("the Blue Book") (Landcom 2004) and Volume 2 (DECC 2008)  
- Roads and Maritime Technical Guideline: Temporary Stormwater Drainage for Road Construction (2011a)  
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| 32  | Contamination of soil       |                                       | The construction environmental management plan will include a contaminated land management plan prepared in accordance with the *Contaminated Land Management Act 1997*, *Roads and Maritime Contaminated Land Management Guideline*, *Roads and Maritime Environmental Incident Classification and Reporting Procedure*, and *EPA guidelines on contaminated land management*. The contaminated land management plan would provide for dealing with:  
- Areas of potential contamination  
- Unexpected contamination finds  
- Any land contamination caused during construction.                                                                                                           | Construction contractor | Pre-construction |
<p>| 33  | Erosion and sedimentation   |                                       | Erosion and sediment controls will be implemented before any construction starts and inspected regularly, particularly after a rainfall event. Maintenance work will be carried out as needed.                                                                                                                                            | Construction contractor | Construction    |
| 34  | Site stabilisation of disturbed areas |                                       | Site stabilisation of disturbed areas will be carried out progressively as stages are completed.                                                                                                                                                                                                                                                   | Construction contractor | Construction    |
| 35  | All stockpiles              |                                       | All stockpiles will be designed, established, operated and decommissioned in accordance with <em>Roads and Maritime Stockpile Site Management Guideline (Roads and Maritime 2015a)</em>.                                                                                                                                                           | Construction contractor | Construction    |
| 36  |                            | Controls will be implemented at exit points to minimise the tracking of soil and particulates onto pavement surfaces.                                                                                                                                                                                                                                     | Construction contractor | Construction    |</p>
<table>
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<tr>
<td>37</td>
<td></td>
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<td>Any material transported onto pavement surfaces will be swept and removed at the end of each working day.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>38</td>
<td></td>
<td>Excess spoil</td>
<td>Excess spoil not required or able to be used for backfilling will be stockpiled in a suitable location before being reused or removed from the site, and disposed of appropriately in accordance with the NSW EPA Waste Classification Guidelines (2014).</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>39</td>
<td></td>
<td>Contamination of soils</td>
<td>In the event that indicators of contamination are encountered during construction (such as odours or visually contaminated materials), work in the area will cease until advice on the need for remediation or other action is obtained from an environmental consultant.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>40</td>
<td></td>
<td></td>
<td>A fully equipped emergency spill kit will be kept on site at all times.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>41</td>
<td>Hydrology, Water Quality and Flooding</td>
<td>Drainage design</td>
<td>Roads and Maritime will consult with Upper Hunter Shire Council during detailed design to ensure appropriate integration with Council’s stormwater network.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>42</td>
<td></td>
<td>Flooding</td>
<td>Roads and Maritime will continue to refine the design throughout the detailed design phase to try and further reduce potential flooding impacts.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>43</td>
<td></td>
<td></td>
<td>Roads and Maritime will consult with relevant authorities throughout the detailed design phase regarding potential changes to the relevant plans including development control plans and floodplain risk management plans.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<td>44</td>
<td>43</td>
<td></td>
<td>During detail design, Roads and Maritime will identify mitigation measures to be implemented where increased flooding is predicted to adversely affect access, property or infrastructure. Roads and Maritime consult with all affected property owners likely to be affected by a change in flood levels including providing details of the predicted actual changes in flood levels in relation to each individual property.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>45</td>
<td>44</td>
<td>Groundwater bores</td>
<td>Roads and Maritime will consult with the owners of the five known groundwater bores to be removed to determine requirements for replacement of these bores if required.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>46</td>
<td>45</td>
<td>Sedimentation and contamination of surface water</td>
<td>Erosion, sedimentation and contamination safeguard measures identified for the geology and soils aspect will be implemented.</td>
<td>Construction contractor</td>
<td>Pre-construction and Construction</td>
</tr>
<tr>
<td>47</td>
<td>46</td>
<td>Flood hazards</td>
<td>As part of the construction environmental management plan a flood risk management plan will be prepared that details the processes for monitoring of flood alerts. The plan will specify the steps to be taken in the event a flood warning is issued including removal or securing of loose material in the floodplain and removal or securing of all fuels and chemicals.</td>
<td>Construction contractor</td>
<td>Pre-construction and Construction</td>
</tr>
<tr>
<td>48</td>
<td>47</td>
<td></td>
<td>A system for daily monitoring of flood alerts will be implemented so that in the event of a flood warning being issued all unsecured material in the floodplain can be removed and other appropriate precautionary measures taken.</td>
<td>Construction contractor</td>
<td>Pre-construction and Construction</td>
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<tr>
<td>49 48</td>
<td>Storage of excess materials within the floodplain, including within compound areas will be minimised. As far as is practical materials are to be ordered on, or as close as possible to, an as needs basis.</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
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</tr>
<tr>
<td>50 49</td>
<td>Contamination of surface water</td>
<td>All fuels, chemicals, and liquids will be stored at least 50 metres away from any waterway or drainage line as far as is practicable and will be stored in an impervious bunded area within the compound site.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>51 50</td>
<td>Vehicle wash downs and/or concrete truck washouts will be carried out within a designated bunded area on an impervious surface or carried out off-site.</td>
<td>Construction contractor</td>
<td>Construction</td>
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</tr>
<tr>
<td>52 51</td>
<td>Visual monitoring of local water quality (ie turbidity, hydrocarbon spills/slicks) will be carried out on a regular basis to identify potential spills or the effects of sediment-laden runoff.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>53 52</td>
<td>Vehicles and plant will be properly maintained and regularly inspected for fluid leaks.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>54 53</td>
<td>An emergency spill kit will be kept on site at all times. All staff will be made aware of the location of the spill kit and trained in its use.</td>
<td>Construction contractor</td>
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<td>55</td>
<td>Dewatering</td>
<td>Dewatering (groundwater and surface runoff collected within the work area) will be carried out in accordance with the Roads and Maritime Technical Guideline – Environmental Management of Construction Site for Dewatering (Roads and Maritime 2011b).</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Groundwater dewatering</td>
<td>Roads and Maritime will consult with NSW Officer of Water to determine the need for an access licence under the Water Management Act 2000. Any licence required will be obtained. In consultation with DPI water, a licence will be obtained if groundwater extraction of more than three mega litres per year (ML/yr) is required. Any requirement of this licence including monitoring will be completed.</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Noise and Vibration</td>
<td>Operational noise and vibration</td>
<td>During detailed design Roads and Maritime will review the predicted noise levels and exceedances for the proposal. Roads and Maritime will then determine the preferred mitigation solution for the proposal which could include low noise pavements, noise barriers and/or at-property treatments.</td>
<td>Roads and Maritime</td>
<td>Detailed Design</td>
</tr>
</tbody>
</table>
| 58  | Construction noise and vibration – General | A construction noise and vibration management plan will be prepared as part of the construction environmental management plan. The plan will include, but not be limited to:  
- Community consultation measures  
- Environmental site inductions.  
- Behavioural practices  
- Noise monitoring program  
- Attended vibration measurement requirements. | Construction contractor | Pre-construction and construction |
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<tr>
<td>59 58</td>
<td>Source controls – Construction hours and scheduling</td>
<td>Where reasonable and feasible, construction should be carried out during the standard daytime working hours. Work generating high noise and/or vibration levels should be scheduled during less sensitive time periods. The use of mulchers, jack hammers, concrete saws, rock breakers, compaction or other equipment used in very close proximity to the receivers should be limited where feasible and reasonable to the standard construction hours.</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Source controls – Construction respite period</td>
<td>If highly noise affected impacts are predicted, high noise and vibration generating activities may only be carried out in continuous blocks, not exceeding three hours each, with a minimum respite period of one hour between each block. If highly noise affected impacts are predicted no more than four consecutive nights of high noise and/or vibration generating work may be carried out over any seven day period, unless otherwise approved by the relevant authority.</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>61 59</td>
<td>Source controls – Equipment selection</td>
<td>Where reasonable and feasible, use quieter and less vibration emitting construction methods</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>62 60</td>
<td>Source controls – Maximum noise levels</td>
<td>The noise levels of plant and equipment must have operating Sound Power or Sound Pressure Levels compliant with the criteria listed in Table 2 of the Transport for NSW Construction Noise Strategy (Transport for NSW 2013)</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>63-61</td>
<td>Source controls – Rental plant and equipment</td>
<td>The noise levels of plant and equipment items are to be considered in rental decisions and in any case cannot be used on site unless compliant with the criteria in Table 2 of the Transport for NSW Construction Noise Strategy (Transport for NSW 2013)</td>
<td>Construction contractor</td>
<td>Construction</td>
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</tr>
<tr>
<td>64-62</td>
<td>Source controls – Use and siting of plant</td>
<td>Simultaneous operation of noisy plant within discernible range of a sensitive receiver is to be avoided. The offset distance between noisy plant and adjacent sensitive receivers is to be maximised. Plant used intermittently to be throttled down or shut down. Noise-emitting plant to be directed away from sensitive receivers.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>65-63</td>
<td>Source controls – Plan worksites and activities to minimise noise and vibration</td>
<td>Plan traffic flow, parking and loading/unloading areas to minimise reversing movements within the site.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>66-64</td>
<td>Source controls – Non-tonal reversing alarms</td>
<td>Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work.</td>
<td>Construction contractor</td>
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<tr>
<td>67-65</td>
<td>Source controls – Minimise disturbance arising from delivery of goods to construction sites</td>
<td>Loading and unloading of materials/deliveries is to occur as far as possible from sensitive receivers. Select site access points and roads as far as possible away from sensitive receivers. Dedicated loading/unloading areas to be shielded if close to sensitive receivers. Delivery vehicles to be fitted with straps rather than chains for unloading, wherever possible.</td>
<td>Construction contractor</td>
<td>Construction</td>
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</tr>
<tr>
<td>68-66</td>
<td>Path controls – Shield stationary noise sources such as pumps, compressors and fans</td>
<td>Stationary noise sources should be enclosed or shielded while ensuring that the occupational health and safety of workers is maintained.</td>
<td>Construction contractor</td>
<td>Construction</td>
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</tr>
<tr>
<td>69-67</td>
<td>Path controls – Shield sensitive receivers from noisy activities</td>
<td>Use structures to shield residential receivers from noise such as site shed placement; earth bunds; fencing; erection of operational stage noise barriers (where practicable) and consideration of site topography when siting plant.</td>
<td>Construction contractor</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>70-68</td>
<td>Proposal specific noise mitigation</td>
<td>In circumstances where the noise levels are predicted to exceed construction noise management levels after implementation of the general work practices, additional mitigation measures are required. These include monitoring, individual briefings, letter box drops, phone calls, specific notifications and alternative accommodation.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>74.69</td>
<td>69</td>
<td>Where reasonable and feasible, it is recommended high noise generating activities (75 dB(A) ( L_{eq} ) at receiver) be used during standard construction hours and in continuance blocks of no more than 3 hours with at least a one hour respite between each block of work generating high noise impact, where the location of the work is likely to impact the same receivers.</td>
<td>Construction contractor</td>
<td>Construction</td>
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</tbody>
</table>
| 72.70 | Where high noise generating activities (75 dB(A) \( L_{eq} \) at receiver) are required out of hours the following will be implemented:  
- The equipment will be used prior to 10pm where reasonable and feasible  
- Where the above cannot be achieved the equipment will be used prior to midnight where reasonable and feasible  
- It is not proposed to apply a 3 hour on and a 1 hour off respite approach in an effort to ensure that the use of such equipment is completed as early in the night as possible. | Construction contractor | Construction |
<p>| 73.71 | Proposal specific noise mitigation - Construction compound | Temporary barriers or hoarding will be constructed around the eastern and southern boundaries of the northern compound. The noise barriers should aim to break line of sight from between the sources and receiver locations. It is recommended any temporary noise barriers extend all the way down to the ground and all gaps are eliminated to prevent noise flanking. | Construction contractor | Construction |
| 74.72 | Proposal specific noise mitigation – Construction related traffic | Roads and Maritime will carry out further construction noise modelling during detailed design to confirm potential increases in construction traffic noise levels on St Aubins and Aberdeen streets. | Roads and Maritime | Detailed design |</p>
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<tr>
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</table>
| 75  | 73     |        | Management of construction related traffic or traffic reroutes should as a minimum include the following controls:  
- Scheduling and routing of vehicle movements  
- Speed of vehicles  
- Driver behaviour and avoidance of the use of engine compression brakes  
- Ensuring vehicles are adequately silenced before allowing them to access the site. | Construction contractor | Construction |
| 76  | 74     |        | Where noise impacts are greater than one year then consideration should be given to the following measures where feasible and reasonable:  
- Temporary noise barriers  
- At-receiver noise mitigation. | Construction contractor | Construction |
| 77  | 75     |        | Feasible and reasonable considerations should also include:  
- Time of day of the noise increase and exceedance of criteria  
- Time of use of affected receivers  
- How many decibels the noise levels are to increase  
- How long the mitigation will provide benefit to the receiver during the proposal.  
- Maintaining the road surface to minimise the potential increase in noise due to pot-holes and road surface irregularities. | Construction contractor | Construction |
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<tr>
<td>78</td>
<td>76</td>
<td>Proposal specific noise mitigation – compliance noise and vibration monitoring</td>
<td>Attended compliance noise or vibration monitoring will be carried out to confirm the predicted noise or vibration levels upon receipt of a complaint. This would be carried out at the complainant’s location and the monitoring will cover the time of day when the impacts were reported to occur, will be completed by a suitably qualified professional and in accordance with the Interim Construction Noise Guideline (DECC 2009).</td>
<td>Construction contractor and Roads and Maritime</td>
<td>Construction</td>
</tr>
<tr>
<td>79</td>
<td>77</td>
<td>Proposal specific noise mitigation – building condition inspections and vibration trials</td>
<td>Where construction activities generating vibration are to be carried out at a distance of less than 20 m from a building and 35 m from a heritage building, initial vibration monitoring trials will be carried out at the commencement of breaking, rolling and compacting activities. Where there is a risk vibration activities may cause damage to nearby structures and buildings, Roads and Maritime will carry out a building condition inspection and prepare a Building Condition Inspection Report for every property or structure likely to be affected.</td>
<td>Construction contractor</td>
<td>Construction</td>
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</table>
| 80  | 78     | Proposal specific noise mitigation – human comfort impacts | Where non-vibration inducing construction methods are impractical, the following principles in accordance with the Interim Construction Noise Guideline (DECC 2009) will be applied:  
  - Confining vibration-generating operations to the least vibration-sensitive part of the shift – which could be when the background disturbance is highest  
  - Determining an upper level for vibration impact also considering what is achievable using feasible and reasonable mitigation  
  - Consulting with the community regarding the proposed events. | Construction contractor | Construction |
<p>| 81  | 79     | Proposal specific noise mitigation – community relations | Where construction work will be outside of standard construction hours, measures outlined for socio-economic effects and the procedures outlined in Environmental Noise Management Manual (RTA 2001) Practice Note (vii) will be applied in relation to consultation with the community. | Roads and Maritime | Construction |
| 82  | 80     | Noise and vibration – Post construction noise monitoring | To confirm that the noise level targets are achieved, a post-construction noise monitoring program be carried out in accordance with the Noise Mitigation Guideline (Roads and Maritime 2014d). | Roads and Maritime | Post-construction |
| 83  | 81     | Landscape and visual amenity | Light spill | Permanent lighting will be designed to minimise light spill into residential properties and sensitive receptors. | Roads and Maritime | Detailed design |</p>
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</table>
| 84  | 82     | Visual impacts | Bridges will be designed and constructed in accordance with the Roads and Maritime Bridge Aesthetics Guidelines (RTA 2003) including the following considerations:  
• Bridges should be as simple and elegant as possible to complement the semi-rural setting  
• All bridge elements including lighting columns, barrier supports, crash barriers and piers to be considered as a whole to simplify the structure and reduce visual clutter  
• Bridges to connect seamlessly with abutments and embankments. | Roads and Maritime | Detailed design |
<p>| 85  | 83     | Develop a limited range of materials, colours and textures for all built elements to achieve a simple uncluttered design. | Roads and Maritime | Detailed design |</p>
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</table>
| 86  | Landscape and visual impacts | A detailed landscape plan will be prepared and implemented in accordance with the Roads and Maritime Landscape Guideline (RTA 2008). The plan will consider the following:  
  - Planting either side of the proposal to screen built form and reduce the scale of the infrastructure  
  - Fill embankments to be planted with low groundcovers/native grasses and groups of trees  
  - Reinforce the local semi-rural landscape character through the use of appropriate vegetation  
  - Low planting of native species, mostly grasses and low shrubs to less than one metre high, combined with appropriately spaced tall Eucalyptus species to retain sightlines  
  - Areas disturbed by construction to be restored to match existing condition as far as possible  
  - Protect and retain riparian vegetation as far as possible  
  - Slope stabilisation matting such as a Jute mat to be used to assist plant establishment and prevent erosion  
  - Tree planting outside the proposal site may assist in visually screening the proposal and should be considered further during the detailed design. | Roads and Maritime      | Detailed design |
<p>| 87  | Vegetation                    | Existing vegetation will be maintained and protected wherever possible, particularly in riparian areas. Trimming of trees rather than clearing will be carried out where possible. | Construction contractor | Construction |
| 88  | Visual impacts                | Compounds, storage areas, stockpiles and associated work areas will be located in cleared or disturbed areas as far as possible. | Construction contractor | Construction |</p>
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<td>89</td>
<td>87</td>
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<td>The construction site will be kept tidy and rubbish free.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>90</td>
<td>88</td>
<td></td>
<td>Work areas will be restored progressively and maintained until established.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>91</td>
<td>89</td>
<td>Visual impacts</td>
<td>The site will be rehabilitated and landscaped in accordance with an approved landscape plan.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>92</td>
<td>90</td>
<td>Light spill</td>
<td>Temporary lighting for construction will be sited and designed to minimise light spill into residential properties and identified sensitive receptors.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>93</td>
<td>91</td>
<td>Aboriginal cultural heritage Inadvertent impacts on heritage items</td>
<td>As part of the site induction, all workers will be advised of their obligations in relation to heritage under the National Parks and Wildlife Act 1974 before construction begins and the guidelines to follow if unanticipated heritage items or deposits are located during construction.</td>
<td>Construction Contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>94</td>
<td>92</td>
<td>Aboriginal heritage item encountered during work</td>
<td>In the event of an unexpected find of an Aboriginal heritage item (or suspected item), work will cease in the affected area and the Roads and Maritime Environment Manager, Hunter Region and the Roads and Maritime Aboriginal Cultural Heritage Officer, will be contacted for advice on how to proceed. The Roads and Maritime Unexpected Heritage Items Heritage Procedure 02 (November 2015b) Archaeological Finds Procedure 2012 will be followed in the event a potential artefact is uncovered.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>95 93</td>
<td>Non-Aboriginal heritage</td>
<td>Inadvertent impacts on heritage items</td>
<td>Archival recording of the impacted elements of the Farming Complex (Heritage Item 5), St Aubins Arms property (Heritage Item 7) and Timber Structure (Heritage Item 3) will be carried out. The archival recording will include photographs and detailed inventory and plans and will be prepared to the standard of Local significance as specified in Heritage Branch’s requirements for Archival Recording of Heritage Items and prepared by a qualified heritage consultant. Final copies of the archival recording will be lodged with the Upper Hunter Shire Council’s local studies collection.</td>
<td>Roads and Maritime</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>96 94</td>
<td></td>
<td></td>
<td>A section 140 Excavation Permit will be obtained for the impacted sections of the Farming Complex (Heritage Item 5) and St Aubins Arms property (Heritage Item 7).</td>
<td>Roads and Maritime</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>97 95</td>
<td></td>
<td></td>
<td>As part of the site induction, all workers will be advised of their obligations in relation to heritage before construction begins and the guidelines to follow if unanticipated heritage items or deposits are located during construction.</td>
<td>Roads and Maritime</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>98 96</td>
<td></td>
<td></td>
<td>A program of vibration monitoring and dilapidation reports will be completed for potential indirect impacts from vibration during construction work on the Rail Culvert (Heritage Item 2), House (Lot 19, DP6498) (Heritage Item 6), the Great Northern Railway (Heritage Item 8), the West Scone Conservation Area (Heritage Item 9) and the buildings associated with the St Aubins Arms (Heritage Item 7).</td>
<td>Construction Contractor</td>
<td>Construction</td>
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<td>99</td>
<td>97</td>
<td></td>
<td>All identified historical heritage items within the proposal or within vicinity of the proposal area will be mapped and provided to site planners, Roads and Maritime workers and sub-contractors so they are aware of their responsibilities under the <em>Heritage Act 1977</em></td>
<td>Construction Contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>100</td>
<td>98</td>
<td>Unanticipated archaeological finds</td>
<td>In the unlikely event of an unexpected find of an archaeological deposit (or suspected item), work would cease in the affected area and the Roads and Maritime Environment Manager, Hunter Region will be contacted for advice on how to proceed. The Roads and Maritime Unexpected Heritage Items Heritage Procedure 02 (November 2015b) Archaeological Finds Procedure 2012 will be followed in the event a potential artefact is uncovered.</td>
<td>Construction Contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>101</td>
<td>99</td>
<td>Air quality</td>
<td>General air quality impacts</td>
<td>The construction environmental management plan will include a procedure for effective dust control, including dust monitoring and reporting procedures.</td>
<td>Construction contractor</td>
</tr>
<tr>
<td>102</td>
<td>100</td>
<td>Dust emissions</td>
<td>Dust suppression measures will be implemented in accordance with the construction environmental management plan. This would include water carts as required.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>103</td>
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<td>Stockpiled materials will be managed in accordance with the <em>Stockpile Management Guideline</em> (RTA, 2011b).</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>104</td>
<td>101</td>
<td>All trucks will be covered when transporting dust generating material to and from the site.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>105</td>
<td>102</td>
<td>Exhaust emissions</td>
<td>Construction plant and equipment will be maintained in a good working condition in order to limit impacts on air quality.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>106</td>
<td>103</td>
<td>Plant and machinery will be turned off when not in use.</td>
<td></td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>107</td>
<td>104</td>
<td>Impacts on sensitive receivers</td>
<td>Local residents will be advised of hours of operation and duration of work and supplied with a contact name and number for queries regarding air quality.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>108</td>
<td>105</td>
<td>Agricultural impact</td>
<td>Roads and Maritime will consult with potentially affected landholders before and during construction to minimise the potential for impacts on agriculture. The impact of land acquisition will be assessed in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991. Impacts from the acquisition on owners remaining holdings will be considered in this process. As required and in consultation with owners, Roads and Maritime will engage the use of appropriately qualified professionals to assess these impacts and identify alternate opportunities for their remaining holdings.</td>
<td>Roads and Maritime</td>
<td>Detailed design and Pre-construction</td>
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<tr>
<td>109</td>
<td>106</td>
<td>Roads and Maritime will manage its residue land in accordance with Roads and Maritime’s disposal process. In accordance with this process, and in conjunction with acquisition negotiations consideration will be given to landowners requests for land swaps to return farmland.</td>
<td></td>
<td>Roads and Maritime</td>
<td>Detailed design and Pre-construction</td>
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<tr>
<td>109</td>
<td>Property acquisition and severance</td>
<td>Roads and Maritime will carry out regular and ongoing engagement with the property owners. Acquisition will be carried out in accordance with the <em>Land Acquisition Information Guide</em> (Roads and Maritime, 2013) and the <em>Land Acquisition (Just Terms Compensation) Act 1991</em>.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td>110</td>
<td>Travelling stock route</td>
<td>Roads and Maritime will continue to liaise with Local Land Services during detailed design to maintain connectivity for travelling stock route. This will include provision of suitable arrangements during construction which could include early construction of the underpass and/or temporary cessation of work in the vicinity when stock movements are required.</td>
<td>Roads and Maritime and Construction Contractor</td>
<td>Detailed design and Construction</td>
<td></td>
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<tr>
<td>111</td>
<td>Groundwater bores and water access</td>
<td>Roads and Maritime will consult with all directly affected landholders, including the owners of the groundwater bores that would be removed, to determine requirements for access to water and replacement facilities or access if required.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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</tr>
<tr>
<td>109</td>
<td>Dryland salinity</td>
<td>Roads and Maritime will investigate the potential for dryland salinity impacts associated with the proposal.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>Land use and property impacts</td>
<td>Roads and Maritime will consult with potentially affected landholders before and during construction to minimise the potential for impacts on land use.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>Property acquisition</td>
<td>Property acquisition will be carried out in accordance with the <em>Land Acquisition Information Guide</em> (Roads and Maritime, 2013) and the <em>Land Acquisition (Just Terms Compensation) Act 1991</em>.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td>110</td>
<td>Property acquisition</td>
<td>Property acquisition</td>
<td>Complete property adjustments for fencing, driveways/access and other property infrastructure impacted by the proposal in consultation with affected property owners, including any adjustments identified during land acquisition.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td>111</td>
<td></td>
<td></td>
<td>Roads and Maritime will continue to contact the remaining landowner impacted by property acquisition to arrange for an interview as per Section 2 of the Supplementary Socio-economic Impact Assessment (Appendix E of this submissions report) to determine the need for any additional mitigation measures.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>114 112</td>
<td>Service provider impacts</td>
<td></td>
<td>Roads and Maritime will consult with relevant service providers during detailed design to identify possible interactions and develop procedures to be implemented to minimise the potential for service interruptions which have the potential to impact on existing land use.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>115 113</td>
<td>Socio-economic impacts</td>
<td>Community impacts</td>
<td>Roads and Maritime will carry out regular and ongoing engagement with the community in accordance with a project stakeholder consultation plan. The plan will include information on who will be consulted, the means of consultation and a complaints management procedure.</td>
<td>Roads and Maritime</td>
<td>Detailed design Pre-construction</td>
</tr>
<tr>
<td>116</td>
<td>Impacts on properties within the proposal site</td>
<td></td>
<td>Roads and Maritime will carry out regular and ongoing engagement with the property owners affected by property acquisition.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<td>117</td>
<td></td>
<td></td>
<td>Property acquisition will be completed in accordance with the <em>Land Acquisition Information Guide</em> (Roads and Maritime, 2013) and the <em>Land Acquisition (Just Terms Compensation) Act 1991</em>.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>118</td>
<td>114</td>
<td>Impacts on neighbouring properties</td>
<td>Roads and Maritime will notify the community of the changes to road conditions at St Aubins street and other local streets. Roads and Maritime will carry out regular and ongoing engagement with the residents in St Aubins Street and Aberdeen Street where traffic is predicted to increase.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>119</td>
<td>115</td>
<td>Impacts on sporting and recreational areas – Scone golf course</td>
<td>Roads and Maritime will carry out regular and ongoing engagement with Upper Hunter Shire Council and Scone Golf Club to address potential impacts associated with acquisition of part of the golf course.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>120</td>
<td>116</td>
<td>Consultation will be carried out with Upper Hunter Shire Council and Scone Golf Club to address potential construction impacts including provision of safe access from the clubhouse to the golf course.</td>
<td>Roads and Maritime</td>
<td>Pre-construction Construction</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>117</td>
<td>Impacts on sporting and recreational areas – Bill Rose Sports Complex</td>
<td>Roads and Maritime will carry out regular and ongoing engagement with Upper Hunter Shire Council and Scone Grammar School to address potential construction impacts including provision of safe access to and from the sports complex.</td>
<td>Roads and Maritime</td>
<td>Pre-construction Construction</td>
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<td>No.</td>
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<td>Environmental safeguards</td>
<td>Responsibility</td>
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<tr>
<td>122</td>
<td>118</td>
<td>Impacts on sporting and recreational areas—Bill Rose Sports Complex</td>
<td>Roads and Maritime will continue to liaise with Upper Hunter Shire Council regarding the closure and temporary provision of alternate netball courts. The location and details would be identified in detailed design in consultation with council and the netball association/club. Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council and Scone and District Netball Association, will provide for the temporary relocation of the impacted netball courts to an equivalent or better standard, inclusive of both impacted area and associated facilities</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>123</td>
<td>119</td>
<td>Impacts on sporting and recreational areas—Bill Rose Sports Complex</td>
<td>Roads and Maritime will continue to liaise with Upper Hunter Shire Council regarding the provision of an alternative area within the sports complex for the impacted playing field and park. The location and details would be identified in detailed design in consultation with Council. Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the relocation or replacement of the impacted playing field and park within the Bill Rose Sports Complex to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the Land Acquisition (Just Terms Compensation) Act 1991.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td>124</td>
<td>120</td>
<td>Impacts on sporting and recreational areas—dog park</td>
<td>Roads and Maritime will continue to liaise with Upper Hunter Shire Council for consideration of an alternate area for the dog park during construction and resumption of usual activities during operation. Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the temporary relocation or replacement of the impacted dedicated off-leash dog park between Liverpool Street and Kingdon Street to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the <em>Land Acquisition (Just Terms Compensation) Act 1991</em>.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>121</td>
<td></td>
<td>Impacts on sporting and recreational areas—play and gym equipment</td>
<td>Prior to the facilities being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the relocation or replacement of the impacted play and gym equipment currently located on Kingdon Street to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014c) and the <em>Land Acquisition (Just Terms Compensation) Act 1991</em>.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<td>122</td>
<td>Impacts on sporting and recreational</td>
<td>Access along the Liverpool Street bike track will be maintained during</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td></td>
<td>areas— bike track</td>
<td>construction. Where access along the bike track is unable to be</td>
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<td></td>
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<td>maintained a safe alternative route will be provided.</td>
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<td>123</td>
<td>Impacts on sporting and recreational</td>
<td>Roads and Maritime will install fencing on the boundary of the proposal</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td></td>
<td>areas— Rugby field</td>
<td>and the rugby field in Susan Street, in consultation with Upper Hunter</td>
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<td>Shire Council and Scone Rugby Club. This fencing is to be suitably</td>
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<td></td>
<td>designed to retain balls within the rugby field.</td>
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<td>124</td>
<td>Impacts on sporting and recreational</td>
<td>Roads and Maritime will carry out further consultation with the user</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<tr>
<td></td>
<td>areas— White Park</td>
<td>groups of White Park to identify potential construction and operational</td>
<td></td>
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<td></td>
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<td>impacts and develop appropriate mitigation.</td>
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<td>125</td>
<td>Travelling stock route impacts</td>
<td>Continued access across the proposal site will be provided in</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>consultation with Local Land Services, this could include early</td>
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<td>construction of the underpass and/or temporary cessation of work in</td>
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<td></td>
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<td>the vicinity when stock movements are required.</td>
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<tr>
<td>126</td>
<td>Construction impacts on the community</td>
<td>Roads and Maritime will carry out regular and ongoing engagement with the community will be carried out in accordance with a project stakeholder consultation plan. The plan will include information on who will be consulted, the means of consultation and a complaints management procedure. Local residents, potentially affected businesses, schools and road users (including emergency service providers) would be notified before work starts and would be kept regularly informed of construction activities, timing and progress during the construction process.</td>
<td>Roads and Maritime</td>
<td>Pre-construction Construction</td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>Potential impacts on highway dependent business in Scone</td>
<td>Roads and Maritime will continue to engage with the Upper Hunter Shire Council and the Scone Chamber of Commerce to manage potential impacts associated with bypassing traffic and the potential benefits of reduced traffic within the town centre. Roads and Maritime will, in consultation with Upper Hunter Shire Council, provide appropriate support for plans to revitalise Scone town centre, for the purpose of encouraging motorists to continue to pass through or visit Scone. This will include measures such as streetscape and landscape treatments, subject to funding agreements for the project. Any streetscape and landscape treatments will be determined after finalisation of any town centre revitalisation plans.</td>
<td>Roads and Maritime</td>
<td>Detailed design Pre-construction Construction Post-construction</td>
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<tr>
<td>No.</td>
<td>Aspect</td>
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<tr>
<td>127</td>
<td></td>
<td></td>
<td>Roads and Maritime will develop a signage strategy for the entrances to Scone, in consultation with Upper Hunter Shire Council to encourage motorists to visit Scone. This will include signage showing:</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
</tr>
<tr>
<td>128</td>
<td></td>
<td></td>
<td>• The travel distances and estimated times for travelling routes via the bypass compared to travelling via the Scone town centre</td>
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<td></td>
<td></td>
<td>• Services and facilities available within the Scone township</td>
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<td></td>
<td></td>
<td></td>
<td>• Any visitor attractions within the Scone township.</td>
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<tr>
<td>129</td>
<td>Impacts on signage</td>
<td></td>
<td>Town entrance signage impacted by the proposal would be relocated in consultation with Upper Hunter Shire Council.</td>
<td>Roads and Maritime</td>
<td>Pre-construction and construction</td>
</tr>
<tr>
<td>128</td>
<td>Safety concerns at schools</td>
<td></td>
<td>Roads and Maritime will carry out regular and ongoing engagement with Upper Hunter Shire Council, Scone Grammar School and Scone Public School to address safety concerns regarding operational and construction traffic.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<td>130</td>
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<td></td>
<td>Pre-construction</td>
</tr>
<tr>
<td>129</td>
<td>Resource use and waste management</td>
<td></td>
<td>Procurement will endeavour to use materials and products with a recycled content where that material or product is cost and performance effective.</td>
<td>Construction contractor</td>
<td>Pre-construction and construction</td>
</tr>
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<td>No.</td>
<td>Aspect</td>
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</table>
| 130 | Waste management | A waste management sub-plan will be prepared and included in the construction environmental management plan in accordance with Roads and Maritime Specification G36 Environmental Protection. The plan is to be guided by the following publications:  
- EPA Waste Classification Guidelines (EPA 2014)  
- NSW Government Waste Reduction and Purchasing Policy (WRAPP)  
| 131 | Demand on resources | Excavated material will be reused on-site for fill where feasible to reduce demand on resources. | Construction contractor | Construction |
| 132 | Demand on resources | Any additional fill material required will be sourced from appropriate sources and/or other Roads and Maritime projects. | Construction contractor and Roads and Maritime | Construction |
| 133 | Waste minimisation | The following resource management hierarchy principles will be followed:  
- Avoid unnecessary resource consumption as a priority  
- Avoidance will be followed by resource recovery (including reuse of materials, reprocessing, and recycling and energy recovery)  
- Disposal will be a last resort (in accordance with the Waste Avoidance and Resource Recovery Act 2001). | Construction contractor | Construction |
<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
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<th>Environmental safeguards</th>
<th>Responsibility</th>
<th>Timing</th>
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</thead>
<tbody>
<tr>
<td>134 136</td>
<td>Management of green waste</td>
<td></td>
<td>Cleared weed-free vegetation will be chipped and reused on-site as part of the proposed landscaping and to stabilise disturbed soils where possible.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>135 137</td>
<td>Spoil management</td>
<td></td>
<td>Excess soil requiring waste disposal would first be assessed against the Waste Classification Guidelines (EPA 2014). Waste would be disposed of appropriately with supporting waste classification documentation.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>136 138</td>
<td>Waste management</td>
<td></td>
<td>Garbage receptacles will be provided and recycling of materials encouraged. Rubbish will be transported to an appropriate waste disposal facility.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>137 139</td>
<td></td>
<td></td>
<td>All wastes will be managed in accordance with the Protection of the Environment Operations Act 1997.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>138 140</td>
<td></td>
<td></td>
<td>Portable toilets will be provided for construction workers and will be managed to ensure the appropriate disposal of sewage.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>139 141</td>
<td></td>
<td></td>
<td>Noxious weeds removed during work will be managed in accordance with the Department of Primary Industries’ requirements that relate to its classification status.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>140 142</td>
<td></td>
<td></td>
<td>Site inductions will occur and be recorded as specified in the construction environmental management plan to ensure staff are aware of waste disposal protocols.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>No.</td>
<td>Aspect</td>
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<tr>
<td>141</td>
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<td></td>
<td>A facility for collecting, treating and disposing of wastes generated in the construction of the proposal will be installed on-site.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>142</td>
<td></td>
<td></td>
<td>All working areas will be maintained, kept free of rubbish and cleaned up at the end of each working day.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>143</td>
<td></td>
<td>Wastewater contamination of soils and water</td>
<td>A dedicated concrete washout facility will be provided during construction so that run-off from the washing of concrete machinery and equipment can be collected and disposed of at an appropriate waste facility.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>144</td>
<td>Hazards and risks</td>
<td>Risk Management</td>
<td>Emergency response plans will be incorporated into the construction environmental management plan.</td>
<td>Construction contractor</td>
<td>Pre-construction and construction</td>
</tr>
<tr>
<td>145</td>
<td></td>
<td></td>
<td>An incident response plan will be developed and implemented as required as part of the construction environmental management plan to manage any identified risks on site.</td>
<td>Construction contractor</td>
<td>Pre-construction and construction</td>
</tr>
<tr>
<td>146</td>
<td>Greenhouse gas and climate change</td>
<td>Greenhouse gas emissions</td>
<td>The use of alternative fuels and power sources for construction plant and equipment will be investigated and implemented, where appropriate.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>147</td>
<td></td>
<td></td>
<td>Recycled materials will be incorporated in the design of pavement and structures where possible.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>148</td>
<td></td>
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<td>The energy efficiency and related carbon emissions will be considered in the selection of vehicle and plant equipment.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
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<td>149</td>
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<td>Materials will be delivered as full loads and local suppliers will be used where possible.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<td>150</td>
<td></td>
<td></td>
<td>Construction equipment, plant and vehicles will be appropriately sized for the task.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>151</td>
<td></td>
<td></td>
<td>Equipment will be serviced frequently to confirm they are operating efficiently.</td>
<td>Construction contractor</td>
<td>Construction</td>
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<tr>
<td>152</td>
<td></td>
<td></td>
<td>Vehicles and machinery will not be left idling when not in use.</td>
<td>Construction contractor</td>
<td>Construction</td>
</tr>
<tr>
<td>153</td>
<td>Cumulative</td>
<td>Cumulative impacts</td>
<td>Ongoing coordination and consultation will be carried out with other proponents to ensure potential cumulative impacts are appropriately assessed and managed.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<td></td>
<td>impacts</td>
<td></td>
<td></td>
<td>and construction contractor</td>
<td>and construction</td>
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<td>154</td>
<td></td>
<td></td>
<td>When the preferred option for Scone town centre rail bridge is selected Roads and Maritime will complete a cumulative impact assessment to identify appropriate mitigation measures to address any potential cumulative impacts.</td>
<td>Roads and Maritime</td>
<td>Detailed design</td>
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<td>and construction</td>
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<tr>
<td>155</td>
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<td>The construction environmental management plan will be revised to consider potential cumulative impacts from surrounding development activities as they become known.</td>
<td>Construction contractor</td>
<td>Pre-construction</td>
</tr>
</tbody>
</table>
## 5.3 Licensing and approvals

Table 5-2 summarises notifications, licences and approvals required for the proposal. Additional and/or modified requirements to those presented in the REF have been underlined and deleted measures, or parts of measures, have been struck out.

Table 5-2: Summary of licensing and approval required

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Timing</th>
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<tbody>
<tr>
<td>Roads and Maritime will carry out further consultation with DPI (Fisheries) during detailed design to confirm any specific requirements for approvals under the FM Act in relation to blocking of fish passage.</td>
<td>Detailed design</td>
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<td>Road occupancy licence</td>
<td>Prior to commencement of construction</td>
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<td>Minister for Primary Industries must be notified of any dredging or reclamation work prior to the undertaking of such work.</td>
<td>A minimum of 28 days prior to the commencement of construction</td>
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<tr>
<td>Roads and Maritime will consult with DPI Water to determine the need for an access licence under the <em>Water Management Act 2000</em>. Any licence required will be obtained. In consultation with DPI water, a licence will be obtained if groundwater extraction of more than three mega litres per year (ML/yr) is required. Any requirement of this licence including monitoring will be completed.</td>
<td>During construction</td>
</tr>
</tbody>
</table>
References

Australian Museum 2016, Little-red Flying-fox (http://australianmuseum.net.au/little-red-flying-fox), viewed 23/02/16


Department of Environment, Climate Change and Water (DECCW) 2011, Road Noise Policy.

Department of Premier and Cabinet 2011, NSW 2021: A Plan to Make NSW Number One.


Environmental Protection Authority (EPA) 2000, Industrial Noise Policy.

Environmental Protection Authority (EPA) 2014, Waste Classification Guidelines.


International Institute of Noise Control Engineering (I-INCE) 2011, Guidelines for Community Noise Impact Assessment and Mitigation.


Roads and Maritime Services (Roads and Maritime) 2014b, Beyond the Pavement urban design policy.

Roads and Maritime Services (Roads and Maritime) 2014c, Land Acquisition Information Guide.

Roads and Maritime Services (Roads and Maritime) 2014d, Noise Mitigation Guideline.

Roads and Maritime Services (Roads and Maritime) 2015a, Stockpile Site Management Guideline.
Roads and Maritime Services (Roads and Maritime) 2015b, Unexpected Heritage Items Heritage Procedure 02
Roads and Traffic Authority (RTA) 2001, Environmental Noise Management Manual Practice Note vii – Road works outside normal working hours
Roads and Traffic Authority (RTA) 2003, Bridge Aesthetics Guidelines
Roads and Traffic Authority (RTA) 2001, Environmental Noise Management Manual Practice Note vii – Road works outside normal working hours
Roads and Traffic Authority (RTA) 2008, Landscape Guideline
Roads and Traffic Authority (RTA) 2010, Traffic Control at Work Sites Manual Version 4
Roads and Traffic Authority (RTA) 2011, Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects
Sinclair Knight Merz (SKM) 2012, Tool for Roadside Air Quality (TRAQ), Developed for NSW Roads and Maritime Services by Sinclair Knight Merz.
Transport for NSW 2012, NSW Long Term Transport Master Plan
Transport for NSW 2013, Construction Noise Strategy
World Health Organisation (WHO) 1999, Guidelines on Community Noise – Health effects of noise
World Health Organisation (WHO) 2009, Night Noise Guidelines for Europe
Appendix A

Newspaper advertisement
Have your say
New England Highway bypass of Scone and town centre rail bridge

Roads and Maritime Services is planning a New England Highway bypass and town centre rail bridge at Scone to improve traffic flow, travel times and safety for motorists. You are invited to have your say on the concept design and environmental assessment for the New England Highway bypass of Scone and strategic design options for the town centre rail bridge.

We invite you to drop-in at any time during the below information sessions to talk to the project team and find out more about the project. Formal presentations are not scheduled as part of the information sessions.

Scone Motor Inn
53 New England Highway, Scone
Thursday 21 January 2016 from 3pm to 7pm
Thursday 4 February 2016 from 3pm to 7pm
Friday 5 February 2016 from 10am to 2pm

Feedback is invited until Friday 19 February 2016 and will be considered to finalise both proposals.

For more information or to provide feedback please contact Phil Davidson on (02) 4924 0332, Philip.Davidson@rms.nsw.gov.au or visit rms.nsw.gov.au
Appendix B

Project update
New England Highway bypass of Scone and town centre rail bridge

December 2015

The Australian and NSW Governments are providing $90 million to build a New England Highway bypass and town centre rail bridge at Scone to improve traffic flow, travel times and safety for road users.

A concept design and environmental assessment have been carried out for the highway bypass to identify potential impacts of the upgrade and mitigation activities. Strategic design options have also been developed for the town centre rail bridge.

Stakeholders and the community are invited to comment on the concept design and environmental assessment for the highway bypass and strategic design options for the town centre rail bridge by 19 February 2016. Roads and Maritime will consider feedback to finalise both proposals.

Background

The New England Highway is part of the inland Sydney to Brisbane National Land Transport Network and the primary route connecting the Upper Hunter with Maitland and Newcastle.

In Scone, the highway intersects with the Great Northern Railway at Kelly Street. The Kelly Street rail level crossing is the only remaining level crossing on the New England Highway.

The highway south of Scone carries 8400 vehicles a day, peaking in town at 14,000. Around 8000 vehicles use the Kelly Street crossing every day, including 1200 heavy vehicles.

There is also a crash history on this four kilometre section of highway with 29 crashes in the five years to June 2014, with no fatalities recorded during this period.

In April 2014 the Australian and NSW Governments announced the preferred option for the future upgrade of the New England Highway at Scone would include a highway bypass and town centre road over rail bridge to address rising road and rail volumes and safety issues.

The announcement followed the completion of an options assessment and feasibility study which is available to view at the Roads and Maritime website rms.nsw.gov.au/roadprojects.

The concept design and environmental assessment for the highway bypass, together with the town centre rail bridge strategic design options, have been developed for community and stakeholder feedback.

Roads and Maritime is continuing to work closely with Upper Hunter Shire Council to develop the proposal.
The proposal

Key features of the proposal include:

• A two lane highway bypass to the west of Scone, which would pass through the Scone Golf Course and bridge over the rail line south of town, and at Kingdon Street and Liverpool Street
• Access to and from the bypass to the north and south of town and midway at St Aubins Street which would provide for all turning movements
• A local road over rail bridge in town.

Benefits

Key benefits of the proposal include:

• Improved traffic flow and amenity for local traffic
• Improved travel times for freight and long distance traffic
• Improved safety for all road users.

The bypass aims to support freight and long distance travel as part of the Sydney-Brisbane National Land Transport Network and would benefit the NSW and national economy.

Bypassing Scone also aligns with the NSW Long Term Transport Master Plan’s focus on providing essential access for regional NSW by providing town bypasses to:

• Improve travel and amenity within towns
• Reduce delays caused to freight traffic
• Increase safety
• Improve urban amenity through reduced noise, lower emissions and less traffic.

New England Highway bypass of Scone

Environmental assessment

Roads and Maritime has carried out an environmental assessment for the highway bypass to assess the potential environmental and social impacts of the proposal and identify activities to manage and mitigate these impacts.

The environmental assessment was prepared in consultation with a range of key stakeholders including technical specialists and considered feedback received from the community.

The investigations found that the bypass proposal would not significantly impact the environment with the application of a range of mitigation and management measures.

Key considerations for assessment

The following key areas of potential impact have been identified in the environmental investigations. The environmental assessment describes these impacts and activities to reduce them.

Traffic and access

The bypass would require changed traffic arrangements during various stages of construction along sections of the existing New England Highway, Kingdon Street, Liverpool Street and St Aubins Street. This could lead to short term delays for motorists, however impacts are expected to be localised and of minimal duration.

Construction vehicles would access the upgrade area via the New England Highway and Liverpool Street wherever possible to minimise impacts within the Scone town centre. Potential construction impacts would be managed through the development of traffic management plans and consultation with stakeholders and the community.

Traffic modelling found that traffic along Kelly Street would steadily increase if the upgrade was not constructed. Projected future traffic volumes along Kelly Street and on Liverpool Street (east of Aberdeen Street) would reduce when the upgrade is completed.

Traffic flow within the town centre would improve as a result of through traffic bypassing the town and local traffic using the St Aubins Street intersection to bypass the town centre. These changes to traffic flow would result in an increase in traffic using Aberdeen Street and St Aubins Street with potential traffic impacts for local residents. Traffic using Aberdeen Street between Liverpool Street and the new intersection at St Aubins Street is forecast to increase by around 2000 vehicles per day.

Hydrology and flooding

A hydrology study was carried out including Parsons Gully, Kingdon Ponds, Middlebrook Creek and Figtree Creek and considered flood levels for various flood events with and without a bypass.

The modelling showed very little difference in the flood levels for one in 20 year and one in 100 year flood events without the construction of a bypass. For one in 20 year and greater flood events, the majority of the floodplain area is inundated including most of Scone to the west of the Great Northern Railway.

The modelling for one in 20 year and one in 100 year flood events with the construction of a bypass showed there would be a minor increase in the water levels in areas generally to the west of the proposal and in the vicinity of White Park. The impact to residences in these areas is expected to be minimal. A decrease in water levels would occur to the east of the proposal in the general vicinity of Aberdeen Street.

Roads and Maritime would continue to refine the design during the detailed design stage to further reduce potential flooding impacts. Roads and Maritime would also carry out consultation with all potentially affected property owners including providing details about the predicted changes in flood levels in relation to each individual property.
**Operational traffic noise**

Operational traffic noise modelling was carried out to compare the current background noise with future predicted noise levels after the bypass is built. The results show that operational traffic noise would exceed appropriate levels at a number of properties along the route.

Potential management measures identified for consideration include quieter road surfaces, noise treatment to residences and noise barriers. Individual noise treatments for properties identified as being potentially affected by operational traffic noise would be discussed with property owners during the detailed design stage.

**Visual impact**

The greatest visual impacts of the upgrade would be on the western edge of Scone. Elements of the proposal that are likely to be the most visually intrusive include the embankments, bridges and vehicle movements. Vehicle headlights may also cause visual impacts at night. The proposed bridge over Kingdon and Liverpool streets would visually divide these road corridors, separating the eastern and western sides of the streets. This would result in visual impacts for pedestrians and motorists travelling along these streets.

Construction of the upgrade would result in reduced traffic volumes through the Scone town centre which is likely to have positive impacts on visual amenity along the existing New England Highway.

To minimise the visual impacts of the proposal, landscaping on either side of the upgrade using native species is proposed to improve visual amenity after the upgrade is built and maintain the rural landscape character. Bridges would also be simple and visually appealing structures to blend in with the landscape.

**Socio-economic impact**

The key socio-economic benefits identified by the assessment are:

- Improved traffic flow and visual amenity along Kelly Street from improved driver and pedestrian safety, reduced traffic noise and lower emissions from vehicles
- Improved connectivity between both sides of the Great Northern Railway particularly for emergency services
- Increased employment opportunities from construction of the upgrade with business opportunities to supply goods and services for construction. These employment opportunities would improve business outcomes for the local retail outlets, accommodation facilities, eateries and services.

The key socio-economic impacts arising from the proposal include:

- Impacts associated with full or partial acquisition of properties
- Amenity impacts on residents, social infrastructure and recreational facilities along or adjacent to the upgrade created by increased operational noise, visual amenity and air quality impacts from construction and operation of the bypass

- Potentially reduced trade for businesses along Kelly Street when through traffic is bypassed from the Scone town centre.

Early and ongoing consultation with affected property owners, businesses and communities as well as inviting community feedback for the ongoing planning, environmental management and monitoring is important to minimise potential socio-economic impacts during construction and operation of the bypass.

**Design changes since the 2014 public display**

There have been several changes made to the bypass design since the 2014 public display following further investigations into hydrology and flooding, traffic operations, road safety, and noise and visual impacts.

The changes include:

- Minor realignment of the bypass near Liverpool Street and through Scone Golf Course to minimise impacts on the golf course and reduce flooding, visual and noise impacts for nearby properties
- Removal of the right turn out of Kelly Street at the southern bypass connection to improve road safety and traffic flow
- Inclusion of the right turn out of St Aubins Street to allow full access to the bypass for vehicles travelling from the west
- Removal of the right turn into Kelly Street from the northern bypass connection to improve road safety and traffic flow.

**Strategic design options for town centre rail bridge**

The Scone Kelly Street Level Crossing options assessment and feasibility report carried out in 2014 recommended the preferred option of a bypass and town centre rail bridge at Kelly Street. The town centre rail bridge would improve local road connectivity, emergency services access and traffic flow through Scone.

The report recognised that construction of the bridge at Kelly Street would need to be carried out after the bypass is completed to minimise traffic disruptions. Closure of the Kelly Street rail level crossing during construction of the bypass would leave only the Liverpool Street crossing available for all traffic.

Following further investigations, strategic options have been developed for a town centre rail bridge at three locations including Kelly Street, St Aubins Street and Sherwood Street. The St Aubins Street and Sherwood Street options have been considered as they could be constructed at the same time as the bypass.
Involving the community and stakeholders

Roads and Maritime is committed to working with the community and stakeholders during the planning process to identify issues and minimise potential impacts of the proposal and construction activities.

Stakeholders and the community are invited to comment on the concept design and environmental assessment for the highway bypass and strategic design options for the town centre rail bridge by 19 February 2016.

Feedback will be considered to finalise the environmental assessment for the highway bypass and the preferred option for the town centre rail bridge.

Drop-in information sessions

Stakeholders and the community are invited to drop-in at any time during the information sessions to talk to the project team and find out more about the project. Formal presentations are not scheduled as part of the information sessions.

Location: Scone Motor Inn
Address: 53 New England Highway, Scone
Date: Thursday 21 January 2016 from 3pm to 7pm
Thursday 4 February 2016 from 3pm to 7pm
Friday 5 February 2016 from 10am to 2pm

Information is also available on the website at rms.nsw.gov.au/roadprojects.

Next steps

Upcoming planning activities include:

- Community and stakeholder consultation
- Finalise the environmental assessment for the highway bypass
- Finalise the preferred option for the town centre rail bridge, which is expected to be displayed for community feedback in mid 2016.

Project development process

[Diagram showing project development process]

Contact us

For more information about this project please contact the Project Manager, Phil Davidson by:
Phone: (02) 4924 0332 (during business hours)
Email: Philip.Davidson@rms.nsw.gov.au
Mail: Phil Davidson
Roads and Maritime Services
Locked Bag 2030 Newcastle NSW 2300

If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1300 761 923.

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Appendix C

Media releases
HAVE YOUR SAY ON CONCEPT DESIGN FOR PROPOSED SCONE BYPASS AND STRATEGIC OPTIONS FOR TOWN CENTRE RAIL BRIDGE

Michael Johnsen MP, Member for Hunter today invited members of the Scone community to provide feedback on the concept design and environmental assessment for the proposed New England Highway bypass and the strategic options for a town centre rail bridge.

Mr Johnsen said the community could have a say on the Australian and NSW government funded bypass and town centre rail bridge which aims to improve traffic flow, travel times and safety for road users.

“Roads and Maritime Services has carried out an environmental assessment for the proposed bypass to assess the potential environmental and social impacts of the proposal and identify activities to manage and mitigate them,” Mr Johnsen said.

“The investigations found the bypass would not significantly impact the environment if appropriate measures were in place.

“Strategic options have been developed for a town centre rail bridge proposed at one of three locations, Kelly, St Aubins or Sherwood streets.”

People can attend drop-in sessions on Thursday 21 January between 3pm and 7pm, Thursday 4 February between 3pm and 7pm and Friday 5 February between 10am and 2pm at the Scone Motor Inn to speak with the project team.

“The environmental assessment and project update will be available from Tuesday 15 December to view or download at www.rms.nsw.gov.au/projects,” Mr Johnsen said.

“The environmental assessment for the bypass can be seen weekdays from 9am to 4pm at Upper Hunter Shire Council. Copies of the project update detailing the concept design for the bypass and the strategic options for the town centre rail bridge are also available.

“Feedback is invited by 19 February 2016 and will be considered when finalising the concept design and environmental assessment.

“Our local community and stakeholders will be kept informed during the planning process to help identify issues and minimise potential impacts of the proposed bypass and town centre rail bridge.”

More information is also available at www.rms.nsw.gov.au.

Media contact: 0265431065
Have your say: Community invited to Scone Bypass drop-in sessions

THE community has been invited to provide feedback on the concept design and environmental assessment for the proposed New England Highway bypass, and strategic design options for the Scone town centre rail bridge.

Deputy Prime Minister and Minister for Infrastructure and Regional Development Warren Truss said the Australian and NSW government-funded proposal would provide much needed improvements to traffic conditions in the area.

“The Australian and New South Wales governments are providing $90 million to build the bypass and town centre rail bridge at Scone to improve traffic flow, travel times and safety for road users,” Mr Truss said.

NSW Minister for Roads Duncan Gay said the bypass would remove 3,500 vehicles per day from local roads in the Scone town centre, improving safety and traffic flow.

“The New England Highway is an important route for freight vehicles and this bypass will improve freight productivity by reducing travel time and cutting freight costs,” Mr Gay said.

Nationals Duty Senator for Hunter John Williams said the proposed future upgrade of the New England Highway will also help address rising road and rail volumes.

“The highway south of Scone currently carries 8,400 vehicles a day, peaking in town at 14,000. This bypass aims to ease congestion and reduce safety risks in the area,” Senator Williams said.

NSW Member for Upper Hunter Michael Johnsen said the environmental assessment for the Scone bypass helped determine the potential environmental and social impacts of the proposal, and identify activities to manage them.

“We will certainly be managing any potential issues to ensure the best possible outcome for the local community. Community members are invited to attend drop-in sessions to speak with the project team and to learn more about the bypass,” Mr Johnsen said.
Drop-in sessions will take place on Thursday 4 February between 3pm and 7pm and Friday 5 February between 10am and 2pm at the Scone Motor Inn. Feedback is invited by 19 February and will be considered when finalising the concept design and environmental assessment.


The documents can also be viewed on weekdays between 9am and 4pm at Upper Hunter Shire Council. Copies of the project update detailing the concept design for the bypass and the strategic options for the town centre rail bridge are also available.

**Media Contacts**

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<th>For Mr Truss:</th>
<th>Brett Heffernan</th>
<th>0467 650 020</th>
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<tr>
<td>For Mr Gay:</td>
<td>Clementine Julian</td>
<td>0417 635 891</td>
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<td>For Senator Williams:</td>
<td>Greg Kachel</td>
<td>0428 253 560</td>
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<td>For Mr Johnsen:</td>
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Appendix D

Respondents
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<td>Community member</td>
<td>238</td>
<td>2.2.2, 2.3.1, 2.3.6, 2.5, 2.6.1, 2.6.3</td>
</tr>
</tbody>
</table>
Appendix E

Supplementary socio-economic impact assessment
Roads and Maritime Services
New England Highway bypass at Scone
Supplementary Socio-economic Impact Assessment

April 2016
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Appendices

Appendix A – Business and Stopper Survey Results
1. Introduction

1.1 Background

Roads and Maritime Services (Roads and Maritime) propose to upgrade the New England Highway to bypass Scone (the proposal). The proposal would include building a two lane highway bypass to the west of Scone.

A review of environmental factors (REF), including a socio-economic impact assessment (SEIA), was prepared for the proposal and placed on public display between December 2015 and February 2016.

Community feedback received during the display raised potential impacts associated with loss of passing trade and property acquisition. In order to address these issues and define impacts to community facilities and open spaces, additional work was carried out including:

- Interviews with impacted landholders (private and Upper Hunter Shire Council) and the Scone and District Netball Association (SDNA).
- Survey of businesses located along Kelly Street that potentially receive passing trade.
- Survey of highway stoppers in Scone.
- Design changes as detailed in Section 1.1.1 including the southern, northern and St Aubins Street connections and changes to access for private properties and Scone golf course.

1.1.1 Design changes to the proposal

In response to the submissions, the proposal has been revised as summarised below. The design of the proposal would be further refined during detailed design.

Southern intersection arrangement

The southern connection has been changed to allow vehicles from the south to access Scone free-flow without conflict, and allow vehicles to access the bypass northbound without conflict with southbound bypass traffic.

The southbound exit from Scone towards Aberdeen remains as described in the REF, utilising the existing highway alignment. However, the design has been revised to include an underpass to provide safer entry into and out of Scone. Northbound vehicles wishing to enter Scone would utilise an off-road ramp and pass under the bypass, connecting to Kelly Street near St Aubins Arms. Vehicles wishing to exit Scone and travel north on the bypass would also utilise the underpass (two-way road) and join the bypass south of the underpass bridge. These design changes to the southern connection would provide a safer solution as vehicles would not turn across opposing lanes and traffic. A left turn lane for southbound traffic to enter Scone is still provided.

Northern intersection arrangement

A northbound right turn lane has been added to the northern intersection to assist with access to the northern area of Scone. The connecting leg to the intersection now becomes two-way to accommodate incoming vehicles from the right turn provision. Right and left turn out at the intersection remains as described in the REF.
St Aubins Street intersection arrangement and widening of Aberdeen Street

At this location, the southbound left turn lane into Scone has been moved further away from the intersection, to provide a safer provision for vehicles exiting St Aubins Street in both a southerly and northerly direction (left and right turn out). This has been provided as a further safety enhancement for the intersection arrangement since the display of the REF.

In addition to the St Aubins Street intersection arrangement, widening of Aberdeen Street on approach to St Aubins Street has been provided to assist left turn movements into St Aubins Street.

Access to private property at southern end of proposal

A revised access arrangement for this private property has been developed to assist with safe access to and from the property and to provide direct access across the highway.

Access to private property at northern end of proposal

An altered access has been designed to provide access to the private property on eastern side of the existing New England Highway. The southbound left turn provision remains as planned, however a revision to the location of the roundabout type and location of this facility has been carried out to provide for access to private property.

Access to Scone golf course

Access to the Scone golf course has been further developed since display of the REF. Connection between the clubhouse and the golf course has been provided under the first span of the bridge over Parsons Gully. Temporary connection throughout the construction of the bypass at this location will be developed during detailed design in consultation with the golf club.

Refined access arrangements to private property

The proposed access to the private property on the western side of the highway near the northern end of the proposal has been further refined. Access is still provided by a new road on the western side of, and running parallel with the bypass, and has been extended slightly to cross Parsons Gully.

Travelling stock route

The existing travelling stock route has been realigned to include the provision of a new underpass for movement of stock. Roads and Maritime would continue to liaise with Local Land Services during detailed design to maintain connectivity for travelling stock route. This would include provision of suitable arrangements during construction, which could include early construction of the underpass and / or temporary cessation of works in the vicinity when stock movements are required.

1.2 Purpose of this report

The purpose of this supplementary socio-economic impact assessment (supplementary SEIA) is to further assess the potential impacts of the proposal in relation to:

- Land use and agricultural impacts associated with the proposed property acquisition.
- Define impacts to community facilities and open spaces.
- Potential loss of passing trade for businesses in Scone town centre.
These potential impacts were considered in the REF and SEIA. Following completion of the surveys and interviews new information is now available and further assessment has been carried out in this report.

The results of the surveys and interviews are documented in the:

- New England Highway bypass at Scone, Landholder and Property Impact Interview Results (GHD 2016a). This document contains private and confidential information and is not available for public viewing.
- New England Highway bypass at Scone, Business and Stopper Survey Results (GHD 2016b) (refer to Appendix A).

This supplementary SEIA has been prepared to support the submissions report for the proposal and should be read in conjunction with the REF and SEIA.
2. Property impacts

2.1 Background

Community feedback received during the display of the REF identified potential impacts associated with property acquisition and construction. In order to address these impacts in more detail, interviews with impacted landholders and user groups were carried out.

The purpose of the interviews was to:

- Inform private landholders about the expected location and extent of potential land acquisition on their property with the aid of property maps.
- Discuss current land use and activities on the whole property, with a focus on the area under potential acquisition and future aspirations with regard to the property.
- Discuss potential impacts to the property, such as:
  - Changes to access.
  - Changes to land use, activities on the property, function, productivity and viability of the property.
  - Changes to amenity.
- Discuss adaptation/impact management strategies to continue function, productivity and viability.

2.2 Methodology

Roads and Maritime and GHD carried out interviews on 15 March 2016 with six private landholders proposed to be affected by property acquisition for the proposal. The impacted private properties are listed in Table 2-1. Each owner has been assigned a number for privacy, shown in the table, along with the details for each lot including the total area and how much land would be subject to acquisition.

The interview with the remaining landowner was postponed as the representative was not available to meet at the arranged time. This meeting is yet to be held despite attempts to reschedule the interview. Consultation with the remaining landowner, yet to be interviewed, will be followed up during the detailed design phase.

GHD also met with the Scone and District Netball Association (SDNA) on 16 March 2016, who lease the netball courts located at the Bill Rose Sports Complex. While the courts are not proposed to be subject to acquisition it is likely that two courts on the eastern side would need to be closed during construction of the overbridge, which is located immediately on the eastern edge of the courts.

GHD held a telephone interview with Upper Hunter Shire Council on 6 April 2016 to discuss potential impacts associated with council managed community facilities.

The property owner interviews were carried out prior to the revision of the intersection designs for the proposal. Responses from the interviews are therefore based on the design and proposal described in the REF.
<table>
<thead>
<tr>
<th>Ownership</th>
<th>Property reference in REF</th>
<th>Lot and DP</th>
<th>Total area of lot (hectares)</th>
<th>Area of lot to be acquired (hectares)</th>
<th>Percentage of lot to be acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lot 1 DP 804243</td>
<td>5.80</td>
<td>0.20</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Lot 103 DP 1093507</td>
<td>9.54</td>
<td>6.63</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Lot 1 Sec 23 DP 758898</td>
<td>0.81</td>
<td>0.81</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Lot 5 Sec 23 DP 758898</td>
<td>0.81</td>
<td>0.81</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Lot 1 DP 732158</td>
<td>1.32</td>
<td>0.14</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Lot 2 DP 5949</td>
<td>23.77</td>
<td>0.43</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Lot 111 DP 623382</td>
<td>3.47</td>
<td>1.88</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Lot 202 DP 579923</td>
<td>57.34</td>
<td>2.57</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Lot 1 DP 68348</td>
<td>0.81</td>
<td>0.30</td>
<td>37%</td>
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</tr>
<tr>
<td>17</td>
<td>Lot 5 Sec 4 DP 758898</td>
<td>0.20</td>
<td>0.10</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Lot 118 DP 5417</td>
<td>0.40</td>
<td>0.15</td>
<td>37%</td>
<td></td>
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<tr>
<td>37</td>
<td>Lot 119 DP 5417</td>
<td>0.40</td>
<td>0.21</td>
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</tr>
<tr>
<td>38</td>
<td>Lot 120 DP 5417</td>
<td>0.40</td>
<td>0.25</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Lot 117 DP 5417</td>
<td>0.40</td>
<td>0.02</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Potential impacts

#### 2.3.1 Private property

Property owners identified potential impacts resulting from property acquisition including loss of infrastructure, severance resulting in fragmentation, changes to how the property is used or managed, ongoing viability issues, access restrictions, economic impacts, amenity and heritage impacts. The impacts identified on each property are summarised in Table 2-2. Impacts that may be common across the private property owners are discussed in the sub-section following Table 2-2.
<table>
<thead>
<tr>
<th>Property description</th>
<th>Background and potential impacts specific to each property</th>
</tr>
</thead>
</table>
| A large rural residential property with homestead and commercial farm producing beef cattle, sheep, standard and thoroughbred horses | **Background**  
The lots subject to acquisition are part of a large rural residential property and working commercial farm. These lots are used for cattle grazing.  

**Potential impacts**  
**Function of the property** – acquisition of four per cent of land in one lot would not have an impact on the existing overall use of that lot for agricultural purposes. Acquisition of 69 per cent of land in the other lot, which is currently used for cattle grazing and already severed from the majority of the property by an existing telephone line easement, would result in the northern portion of that lot being unable to be functionally used by the current property owners as part of their farm operations.  

The southern part of that lot would not be large enough to continue to be used for grazing. However, that section could continue to be used for alternate agricultural purposes by the current owner.  

**Infrastructure and assets on the property** – there is the potential that acquisition of land and construction activities may result in full or partial loss of the driveway to the homestead, pepper trees along the driveway, mailbox and fences. There is also the potential for the property connections to the water main and telephone lines to be impacted. The owner also identified the potential for damage to the homestead during construction because of vibration. The noise and vibration assessment (Appendix G in the REF) found that vibration from:  
- General construction activities could exceed the relevant structural damage criteria at standard (non-heritage) buildings within 18 metres of the activities and at heritage buildings within 35 metres of the activities.  
- Piling activities, depending on the method selected by the construction contractor, could exceed the relevant structural damage criteria at standard (non-heritage) buildings up to 100 metres and at heritage buildings up to 180 metres from the activities.  

The homestead is outside of this area and as a result, no structural impacts are expected from construction vibration. The noise and vibration assessment notes that the vibration may be perceptible to people at greater distances.
<table>
<thead>
<tr>
<th>Property description</th>
<th>Background and potential impacts specific to each property</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business viability</strong> - the proposed property acquisition and resulting changes to farm operations would likely result in a negative financial impact on the property owners and business.</td>
<td></td>
</tr>
<tr>
<td><strong>Access to and within the property</strong> – acquisition impacting on the existing driveway and construction activities occurring in the immediate vicinity of the residence are likely to disrupt the existing access to the property. Access impacts would be during construction and operation of the proposal. Operational impacts have been addressed through the revised design, which includes amended access to the property to assist with safe access to and from the property and to provide direct access across the highway.</td>
<td></td>
</tr>
</tbody>
</table>
| Currently unused but purchased to form part of an agricultural business, including cattle grazing | **Background**  
The lots subject to acquisition were purchased by the owners for cattle grazing.  

**Potential impacts**  
**Function of the property** – 100 per cent of land in both lots would be acquired. As a result, the existing agricultural use would be lost.  
**Infrastructure and assets on the property** – a well is located on the property that is subject to acquisition. The well is currently being used by the house to the south east of the property. The well will no longer be usable because of the proposal, so the house would need to rely on town water, which poses additional costs to the land owner.  
**Access to and within the property** - safe access to the property would be impacted by the increased traffic, particularly heavy vehicles, on St Aubins Street.  
**Business viability** - loss of land for cattle grazing is likely to result in a negative financial impact on the property owners and business. |
| A rural residential lot, used for grazing horses commercially and for personal use. | **Background**  
The property to be acquired is a rural residential lot used for grazing horses.  

**Potential impacts**  
**Function of the property** – 10 per cent of the north-western corner of the lot would be acquired. As a result, the rest of the property would be able to continue to be used as a rural residential property and for grazing horses.  
**Infrastructure and assets on the property** – the proposed acquisition of land is likely to result in partial loss of boundary fences on the property, and loss of an established tree.  
**Access to and within the property** - current safe access for horse riding to areas west of the town would be lost. Existing access to the west is via local roads including Susan Street. With the proposal, access to the west would be via Liverpool Street, which is a busy road that may not be a safe route for horses. It is unlikely that access within the property would change because of the proposal. |
<table>
<thead>
<tr>
<th>Property description</th>
<th>Background and potential impacts specific to each property</th>
</tr>
</thead>
</table>
| **A large rural residential property used for grazing cattle and making hay** | **Background**<br>The lot subject to acquisition is part of a large rural residential property and working commercial farm including grazing cattle and making hay.  
**Potential impacts**<br>**Function of the property** – Two per cent of the lot would be acquired along the eastern edge of the property. As a result, the overall use of the property for agricultural purposes would not be impacted.  
**Infrastructure and assets on the property** – there is the potential that acquisition of land and construction activities occurring in the immediate vicinity of the property may result in partial loss of the property fence. There is an existing water main on the western side of the New England Highway along the frontage of the property, which would be impacted by the construction activities and require relocation.  
**Access to and within the property** – there is the potential for access to the property to be disrupted during construction, which would lead to a temporary inconvenience for the property owners. |
| **Commercial agricultural property** | **Background**<br>The lots subject to acquisition are used for commercial agricultural purposes.  
**Potential impacts**<br>It should be noted that an interview has been offered to but has not yet been held with the property owner and a submission was not received, therefore the assessment of potential impacts is based on a desktop review of information.  
**Function of the property** – 54 per cent of land in one lot would be acquired. There is the potential that the existing use of this lot for agricultural purposes by the current owners would be lost, although unconfirmed, which would likely have negative financial impacts on the business. Four per cent of land in the other lot would be acquired, and as a result, it is likely, although unconfirmed, that the overall use of this lot for agricultural purposes would not be impacted.  
**Infrastructure and assets on the property** – there is a potential that acquisition of land and construction activities may result in full or partial loss of property fences.  
**Access to and within the property** – acquisition would directly impact access into this property. A refined permanent access arrangement has been designed to provide access to the residual property on the western side of the highway for the property. There is the potential for access to the property to be disrupted during construction, which would lead to a temporary inconvenience for the property owners and/or users of the property. |
<table>
<thead>
<tr>
<th>Property description</th>
<th>Background and potential impacts specific to each property</th>
</tr>
</thead>
</table>
| A property used for commercially breeding thoroughbred horses, and occasionally cattle grazing. | **Background**  
The lots subject to acquisition are used for agricultural purposes including breeding thoroughbred horses, and occasionally cattle grazing.  
The lots are located across the street from the residential property.  
Breeding thoroughbred racing horses provides some income for the property owners. Owning the property for the horses reduces costs otherwise associated with leasing land to keep the horses.  
**Potential impacts**  
**Function of the property** – 37 per cent of land in one lot and 69 per cent of land the other lot would be acquired, which is equivalent to a total of 60 per cent of land across the two lots to be acquired. It is likely that the remaining land would not be large enough to be used for grazing thoroughbred horses or cattle. The owners identified that the proximity of the bypass and resultant noise impacts would mean the land would no longer be appropriate for breeding thoroughbreds.  
**Infrastructure and assets on the property** – there is the potential that acquisition of land and construction activities may result in full or partial loss of electrified property fences and a well.  
**Business viability** - the loss of land for breeding thoroughbred horses is likely to result in negative financial impacts to the property owners and business. The owners perceived that the acquisition of the property and loss of land would have a financial impact on the business, and they would not be able to pass the land on to future generations. |
| Four lots used to support a livestock business. | **Background**  
The property to be acquired is currently used to store farming equipment overnight, and includes a small hay shed, cattle yards and a powered well which is used to irrigate the property. The livestock business currently provides some income for the owners. Plans for the land, which would grow the business, have been put on hold due to the potential acquisition, which has had a financial impact on the business.  
**Potential impacts**  
**Function of the property** – of the four lots, three are located directly adjacent to each other and would be subject to acquisition of between 37% and 61%. The residual land would be difficult to access and it is likely that the quantity of land would not be enough for continued agricultural use. The acquisition would therefore result in the property owners being unable to functionally use the land as part of their current farm operations. The fourth lot is located to the east of these lots and would be subject to five per cent acquisition of the north western corner. There is the potential that this lot could continue to be used for agricultural purposes by the current owner. |
**Property description** | **Background and potential impacts specific to each property**
---|---
**Infrastructure and assets on the property** – there is the potential that acquisition of land and construction activities may result in full or partial loss of property fences, a well, shed and cattle yard.

**Access to and within the property** – acquisition would result in loss of access to part of the property because of the proposal. There is the potential for access to the property to be disrupted during construction, which would lead to a temporary inconvenience for the property owners. The location and type of access changes would be established during the detailed design phase.

**Business viability** - loss of land for cattle grazing is likely to result in negative financial impacts for the property owners and business.

*Overall impacts common to private property owners*

**Emotional attachments, stress and anxiety**

Several property owners raised the impact on their emotional health because of the planning of the proposal. This was related to uncertainty around the property acquisition process, for example the length of time the acquisition process would take, how much they would receive financially for the land to be acquired, or the implications for the viability of their related agricultural businesses. This was also related to the amenity and lifestyle impacts resulting from living next to a major highway when the proposal is operational. Several property owners also raised the emotional attachments they had to the property, particularly as many had lived on the property for a long time.

**Property values**

Most property owners raised the potential impact the construction and operation of the proposal would have on the value of their property. This was related to the proximity of the bypass to the residence and the resultant negative impact on the amenity and lifestyle of the property. Many aspects influence property values such as location and use. It is recognised that properties affected by the proposal may be difficult to market before completion of construction due to uncertainty of environmental impacts.

**Amenity and lifestyle**

There is concern from private property owners regarding potential amenity impacts including noise, air quality and visual impacts relating to the proposal. Amenity impacts have been discussed in Sections 6.5, 6.6 and 6.9 of the REF and additional information provided in Sections 2.9, 2.10, 2.12 and 2.14 of the Submissions Report. A summary of the impacts related to these private properties is outlined below.

**Noise**

A noise and vibration assessment (Appendix G in the REF) has been carried out for the proposal, which considers the potential noise, and vibration impacts associated with construction and operation. In addition to this, updated modelling has been carried out based on the revised design and community submissions as part of the Submissions Report.
The assessment included modelling based on measurements of existing noise levels, predicted traffic volumes and speeds. The speed zone of the proposal is consistent with the adjacent sections of the New England Highway and other proposed bypasses on this route. All receivers (e.g. residences, schools, churches etc.) that could be affected by road traffic noise from the proposal are identified and mapped on Figure 4-1 within the noise and vibration assessment.

The modelling has predicted that the relevant criteria would be exceeded at a number of properties, including several that would be subject to property acquisition, particularly those located on St Aubins Street and Aberdeen Street.

Others residents located outside of these areas also raised the potential for operational noise impacts, however the modelling indicates that these residences would not be subject to operational noise in excess of the relevant criteria.

Specific concerns raised by property owners during interviews with GHD about potential noise impacts include:

- A property owner at the northern end of the proposal also identified the potential for operational noise impacts. This property is located adjacent to the existing highway, however the modelling indicates that the residence would not be subject to operational noise in excess of the relevant criteria.

- A property owner also raised the potential noise resulting from construction activities and the impact of this on shift workers. The noise modelling indicates that construction noise levels could exceed the relevant criteria at this property.

- One property owner identified that the widening of Aberdeen Street to provide for left turn movements into St Aubins Street, as well as new road for the short section of St Aubins Street that connects to the bypass, would result in increased traffic adjacent to the eastern and northern frontages of the property. The noise modelling identified that relevant noise criteria would be exceeded at this property and that noise mitigation would be required.

**Air Quality**

The construction of the proposal would have localised impacts on air quality, primarily due to dust generation.

Residences and other sensitive receivers closest to the construction work area have the highest potential for adverse air quality impacts. Dust emissions during construction are typically sufficiently managed through the application of mitigation measures. Dust management measures have been outlined in the REF to assist in minimising off-site impacts during the construction phase of the proposal.

Section 6.3 of the REF provides an assessment of air quality impacts associated with the operation of the proposal, including modelling of and assessment of vehicle emissions in accordance with *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (DEC 2005). The approved methods includes impact assessment criteria for a range of pollutants that were set on the basis of scientific studies of air quality and human health from all over the world, as well as the standards set by other organisations, such as the World Health Organization.

Air emissions during operation of the proposal were identified to consist of products of combustion (exhaust) and particulate matter. Emissions which were assessed were Carbon monoxide (CO), Oxides of nitrogen (NOx) and particulate matter (PM10). Air emissions were modelled at the kerb and at 10 metres, 20 metres, 50 metres and 100 metres from the kerb. The modelling predicted that the emissions would comply with the impact assessment criteria.
**Visual**

During construction, there would be potential visual impacts to residents due to plant and equipment, earthworks and vegetation removal.

The proposal is likely to be visually prominent from several key viewpoints around Scone. The proposal features a number of elements that would be obvious within the predominantly open farmland landscape including embankments, bridges and vehicle movements. It is acknowledged that changes resulting from the proposal would affect owners, residents and tenants of properties adjoining the proposal site.

During operation of the proposal, there is potential for headlight intrusion and glare into properties.

One property owner identified that the widening of Aberdeen Street to provide for left turn movements into St Aubins Street, as well as new road for the short section of St Aubins Street that connects to the bypass, would result in increased traffic adjacent to the eastern and northern frontages of the property. This would have a visual impact on this property.

One property owner raised concerns about potential visual impacts and resulting impacts on heritage values of the property. This has been addressed within the Submissions Report.

**Flooding and drainage**

There is concern from private property owners regarding excess flooding and water runoff from the proposal.

The results of modelling of changed flood conditions for the one in 20 and one in 100 year flood events (refer to Section 6.4 of the REF) indicate that for both events there would be an increase in the depth of flooding in areas generally to the west of the proposal and in the vicinity of the showground, while there would be a decrease to the east of the proposal generally in the vicinity of Aberdeen Street.

To address landholder concerns and account for proposal design changes, additional modelling has been carried out. This modelling involved the inclusion of the revised southern intersection and other design changes for the 20 and 100 year Average Recurrence Interval (ARI) events. Revised flood maps are provided in the Submissions Report (refer to Figures 3.4 and 3.5).

The revised modelling did indicate a localised impact on flood levels but these did not extend far enough to impact dwellings, commercial buildings or any land outside the proposed road corridor.

**Access to properties**

There would be temporary impacts on access to some private properties during construction. The locations and types of access changes would be determined during the detailed design phase. Any changes to access during the construction phase would result in a temporary inconvenience for property owners and residents.

During operation, there would be changes to access to some private properties, with the exact locations and types of access changes to be refined during detailed design. Design changes have been made as a result of public submissions, as shown in Section 4 of the Submissions Report. These changes will provide appropriate access to specific properties. These design changes address the concerns in relation to potential access and safety issues.
2.3.2 Community facilities

The proposal would impact on the Bill Rose Sports Complex (netball courts, playing field and playground), White Park and a dog park on Liverpool Street, which are community facilities managed by Upper Hunter Shire Council. A summary of the impacts on these community facilities, identified in discussion with council is provided in Table 2-3.

The SDNA use the netball courts located at the Bill Rose Sports Complex. SDNA identified potential impacts on the association and players resulting from the potential for access to the courts to be reduced during construction of the overbridge. The impacts on the netball courts and users are summarised in Table 2-3.

<table>
<thead>
<tr>
<th>Property reference in REF</th>
<th>Potential impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Rose Sports Complex – Netball Courts</td>
<td>Background</td>
</tr>
<tr>
<td></td>
<td>The courts at the Bill Rose Sports Complex are the only netball courts in Scone. They include six courts made up of four main courts and two smaller courts.</td>
</tr>
<tr>
<td></td>
<td>The courts are well used by SDNA and local schools (including Scone Grammar School) for regular netball training. Local fitness groups using the neighbouring grassed area for classes (e.g. yoga, outdoor boot camp) also use the courts.</td>
</tr>
<tr>
<td></td>
<td>SDNA primarily use the courts during netball season from February to September, and during tryouts in October. Training is held during the week (Monday to Friday) and competitions are held on Thursday nights and Saturdays.</td>
</tr>
<tr>
<td></td>
<td>SDNA are a not-for-profit, volunteer based organisation, providing an important social, healthy and safe activity for local and district residents. Scone is competitive in sports, particularly as a regional location. There are few alternate social options for residents, particularly young people.</td>
</tr>
<tr>
<td></td>
<td>SDNA currently have over 400 registrations, with teams in age categories from age 12 to 17 and over. There are currently over 60 players competing in regional competitions throughout the Hunter Valley and Newcastle. The closest alternative netball association is located at Muswellbrook.</td>
</tr>
<tr>
<td></td>
<td>All courts are required to hold a carnival. According to SDNA, the courts are currently in a poor condition, especially the two smaller courts, as they have not been properly maintained since the announcement of the proposal.</td>
</tr>
<tr>
<td></td>
<td>SDNA pay $1800 per year to council to use the courts. SDNA has also fundraised in the past to help pay for the smaller two courts and the toilet block.</td>
</tr>
<tr>
<td></td>
<td>Loss of access to the courts may also have a broader negative social and health impact for netball players who may lose opportunities for social interactions and participation in sport.</td>
</tr>
<tr>
<td>Property reference in REF</td>
<td>Potential impacts</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Potential impacts</strong></td>
</tr>
<tr>
<td></td>
<td>It is likely that the two smaller courts on the eastern side of the complex would need to be closed during construction of the overbridge, which is located immediately on the eastern edge of the courts. This would result in a short term impact on access to the courts by the SDNA and their members, and the schools and students, which use the courts. The loss of access to these courts may lead to changes in how these groups run training sessions. Construction activities within the vicinity of the courts may lead to noise and dust impacts, which may interrupt training sessions. For example, noise resulting from construction may result in difficulty for players hearing training whistles and instructions.</td>
</tr>
<tr>
<td></td>
<td>The students from Scone Grammar School and public schools, which use the courts for training, and the fitness groups, which use them for classes, would also be negatively impacted by the loss of access to the courts.</td>
</tr>
<tr>
<td></td>
<td>The loss of the courts would also have a negative impact for players who would either have to travel outside of Scone to continue to play, or stop playing netball for the duration of construction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bill Rose Sports Complex – Playing field</th>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A small playing field is located at the Sports Complex between the netball courts and playground. The area is not an official sports field, but is a grassed area with lighting provided. The field is used by local groups for fitness classes, such as an outdoor boot camp and yoga. These groups also use the adjoining netball courts during their classes.</td>
</tr>
<tr>
<td></td>
<td><strong>Potential impacts</strong></td>
</tr>
<tr>
<td></td>
<td>The central part of the playing field would be permanently lost because of land acquisition for the construction of the overbridge. The loss of land would impact on the fitness and yoga groups, who would be required to find an alternate outdoor space for classes.</td>
</tr>
<tr>
<td></td>
<td>Council identified that the changes to Bill Rose Sports Complex resulting from the proposal may present an opportunity for preparation of a masterplan for the park. The masterplan would identify an alternate, more central location within the complex for the playing field. The masterplan would also identify the potential for higher quality facilities, such as a new playing field.</td>
</tr>
<tr>
<td>Property reference in REF</td>
<td>Potential impacts</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Bill Rose Sports Complex – Playground and Outdoor Gym</td>
<td><strong>Background</strong>&lt;br&gt;The Bill Rose Sports Complex includes a play area with children’s playground and outdoor gym equipment. Both of these are well used by the community.  &lt;br&gt;<strong>Potential impacts</strong>&lt;br&gt;The playground and gym areas would be permanently impacted by the proposal through acquisition and there would be likely temporary restrictions on use of the residual land for safety reasons during construction. The residual land would not be suitable for similar use during operation of the proposal due to it being located directly beneath the overbridge and limited space to redevelop the playground and gym areas in the same location.  &lt;br&gt;Council identified that the changes to Bill Rose Sports Complex resulting from the proposal may present an opportunity for preparation of a masterplan for the park. The masterplan would identify an alternate, more central location within the complex for the play area and playground. The masterplan would also identify the potential for higher quality facilities, such as a new playground and outdoor gym area.</td>
</tr>
<tr>
<td>Dog park</td>
<td><strong>Background</strong>&lt;br&gt;The dog park area is an unfenced, open grassed area where residents can legally take their dogs off-leash. The park currently includes a cycle and pedestrian pathway, bins and signage. Current predominant use of the park is by people walking and cycling, rather than people with dogs.  &lt;br&gt;<strong>Potential impacts</strong>&lt;br&gt;The dog park would be subject to partial acquisition (around 60 per cent of the existing park area). The dog park would be unavailable for use during construction, and the residual area may be closed for safety reasons. The existing shared path would also be unavailable during construction. Subject to detailed design and final placement of the overbridge piers, normal activities are likely to be able to resume on the residual land beneath and adjacent to the overbridge following construction.  &lt;br&gt;Council identified that following construction of the overbridge, the park would continue to be used by the community as a dog park and pathway. Council also has a vision to embellish the area including providing a cycle path to connect to other pathways outside of the park.</td>
</tr>
</tbody>
</table>
Property reference in REF | Potential impacts
--- | ---
White Park | **Background**
There are a range of equestrian groups, which use White Park, for example Scone Grammar School equestrian team, Camp Draft and Rodeo, Stock Horse, Pony Club, Show Jumping etc. There are also a number of casual users who use the park for practice and training. As a result, there is nearly continual use of the park, which varies throughout the week. Every weekend is booked with various events, and large events (e.g. Horse Week in May) are held throughout the year.
Council has identified the potential opportunity to use former golf course land to expand White Park in the future.

**Potential impacts**
Due to the proximity of White Park to the proposal, users of the park would experience amenity impacts during construction, such as noise, air quality and visual impacts.

There is potential that noise from construction activities may disrupt some activities within the park. The noise modelling indicates that construction noise levels have the potential to exceed the relevant criteria at White Park, particularly during clearing, earthworks and pavement activities. The modelling indicates that the relevant criteria could be exceeded within generally the southern half of White Park but not the stables or adjacent areas.

The operation of the proposal would lead to noise and visual changes for users of the park. The noise modelling indicates that during operation the relevant criteria could be exceeded within generally the southern edges of White Park but not the stables or adjacent areas. White Park is already subject to existing noise impacts from the Great Northern Railway. Noise impacts during operation of the proposal were not raised as particular issues by council or Hunter Thoroughbred Breeders Association and Australian Stock Horse Society during consultation for the proposal.
3. Impacts on local businesses

3.1 Background

Based on community feedback received during the display potential impacts from loss of passing trade was raised as an issue. In order to further assess and address this issue, business surveys, stopper surveys, origin-destination survey and review of the Draft Scone Town Centre Masterplan was carried out to further assess potential impacts on local businesses.

3.2 Methodology

3.2.1 Business surveys

Business surveys were carried out on 14 (Monday), 15 (Tuesday) and 16 (Wednesday) March 2016 by GHD’s community engagement team.

The purpose of the survey with businesses in Scone town centre (on Kelly Street and Liverpool Street) was to:

- Understand the perceived degree of dependence of businesses on passing trade, potential seasonal variations in passing trade, nature and proportion of local / regional market.
- Understand the perceived impacts of the proposal on businesses – changes to passing trade, changes in the operation of the businesses.
- Potential strategies to minimise impacts of the proposal on local businesses.

A total of 47 businesses identified as potentially receiving passing trade were surveyed (refer to Appendix A).

The surveys were carried out prior to the revision of the intersection designs for the proposal (refer to Section 1.1.1). Responses are therefore based on the design and proposal described in the REF.

3.2.2 Stopper surveys

To supplement the findings of the business survey, an intercept survey of stoppers along Kelly Street was carried out by GHD’s community engagement team on 15 (Tuesday), 16 (Wednesday), 18 (Friday) and 19 (Saturday) March 2016. The intercept survey largely included people who were passing through Scone via New England Highway towards another destination, but chose to stop in Scone to purchase or use goods and/or services. It also included a small number of locals and people visiting Scone. The surveys were carried out outside of businesses identified as receiving passing trade. The purpose of this survey was to:

- Understand the attitudes of stoppers and their reasons for stopping in Scone including length of their stop over, activities carried out during the stop over, money spent in the community (at businesses in Scone town centre) during the stop over and potential for repeat visit.
- Understand potential changes in stoppers behaviour once the proposal is operational.
- Ask for recommendations to encourage stoppers to continue to visit Scone after the bypass is operational.

A representative sample of 99 intercept survey responses of people in Scone at Kelly Street were carried out (refer to Appendix A).
The surveys were carried out prior to the revision of the intersection designs for the proposal (refer to Section 1.1.1). Responses are therefore based on the design and proposal described in the REF.

3.2.3 Origin-destination survey

An origin-destination survey was carried out on 15 (Tuesday) March and 19 (Saturday) March 2016 at key locations within and near Scone to monitor vehicle movements and identify through traffic that was stopping in Scone. This information was used to supplement origin-destination survey data carried out in 2014 and reported in the REF and SEIA.

3.2.4 Review of literature and plans

Drawing on findings from the literature review on economic impacts of bypasses

Section 2 of the SEIA (Appendix K in the REF) summarised the findings from the literature on economic impacts of bypasses. The following documents were included in the literature review:

- *Summary of highway bypass studies* (Leong, 2000).

Draft Scone Town Centre Masterplan

In March 2016 Upper Hunter Shire Council released the Draft Scone Town Centre Masterplan (Upper Hunter Shire Council, March 2016a) and the Scone Town Centre Revitalisation Masterplan Background Report (Upper Hunter Shire Council, March 2016b) for public exhibition. A review of the documents was carried out to understand potential synergies between the proposal and Scone town centre development strategies proposed in the plan.

3.3 Potential impacts

The potential impacts of the proposal on businesses along Kelly Street and Liverpool Street are discussed and assessed in light of the following:

- Key findings of the business survey (refer to Appendix A).
- Key findings of the survey of stoppers (refer to Appendix A).
- Analysis of data from the origin-destination survey.
- Key findings from the review of literature on economic impacts on bypasses.

3.3.1 Key findings of the business survey

This section provides a summary of the key findings from the business survey. The full survey results are provided in Appendix A.
Definitions for terminology used in the survey
The customer base in Scone was categorised as follows:

- Local/regional customers – those customers that reside in Scone and Upper Hunter Shire region.
- Passing trade – passing trade is defined as opportunistic trade generated from customers who are passing through Scone towards another destination, but choose to stop in Scone to purchase goods and services.
- Visitors – visitors to Scone are those customers who have planned a visit to Scone as a destination for purposes like tourism, business, visiting family or friends, attending events or functions.

Perceived understanding of existing customer base of businesses in Scone town centre
To understand potential reliance of surveyed businesses on passing trade, the businesses were asked to estimate the proportion of trade received from various types of customers namely local/regional, passing trade and visitors. Data on the perceived proportion of customers received by surveyed businesses is presented in Figure 3-1 and Table 3-1.

![Figure 3-1 Proportion of customers who were local/regional, visitors, or passing trade](image-url)
<table>
<thead>
<tr>
<th>Type of customer</th>
<th>Majority customers (over 50%)</th>
<th>Some customers (21-49%)</th>
<th>Few customers (1-20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local/ regional</td>
<td>66% of the surveyed businesses (31 respondents) estimated that the majority of their customers were from the local/regional area. These businesses included:</td>
<td>28% of the surveyed businesses (10 respondents) estimated that some of their customers were from the local/regional area. These businesses included:</td>
<td>2% of the surveyed businesses (one respondent) estimated that few of their customers were from the local/regional area. This included:</td>
</tr>
<tr>
<td></td>
<td>Retail shops (11 respondents), including the combined retail/post office</td>
<td>Retail shops (six respondents)</td>
<td>One accommodation facility</td>
</tr>
<tr>
<td></td>
<td>Eateries, cafes and restaurants (11 respondents), including the combined restaurant/accommodation facilities</td>
<td>Eateries, cafes and restaurants (four respondents)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (four respondents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service stations (three respondents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passing trade</td>
<td>9% of the surveyed businesses (four respondents) estimated that the majority of their customers were passing trade. These businesses included:</td>
<td>53% of the surveyed businesses (25 respondents) estimated that some of their customers were passing trade. These businesses included:</td>
<td>34% of the surveyed businesses (16 respondents) estimated that few of their customers were passing trade. These businesses included:</td>
</tr>
<tr>
<td></td>
<td>Accommodation (one respondent)</td>
<td>Retail shops (12 respondents), including the combined retail/post office</td>
<td>Retail shops (five respondents)</td>
</tr>
<tr>
<td></td>
<td>Eatery/café/restaurant (one respondent)</td>
<td>Eateries, cafes and restaurants (eight respondents)</td>
<td>Eateries, cafes and restaurants (four respondents)</td>
</tr>
<tr>
<td></td>
<td>Service station (one respondent)</td>
<td>Accommodation facilities (two respondents)</td>
<td>Other (four respondents)</td>
</tr>
<tr>
<td></td>
<td>Other (one respondent)</td>
<td>The combined eatery/accommodation facility also considered some of their customers were passing trade</td>
<td></td>
</tr>
<tr>
<td>Type of customer</td>
<td>Majority customers (over 50%)</td>
<td>Some customers (21-49%)</td>
<td>Few customers (1-20%)</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------</td>
<td>------------------------</td>
<td>----------------------</td>
</tr>
</tbody>
</table>
| Visitors to Scone/region | 2% of the surveyed businesses (one respondent) estimated that the majority of their customers were visitors. These businesses included:  
- One accommodation facility considered most of their customers were visitors | 49% of the surveyed businesses (23 respondents) estimated that some of their customers were visitors. These businesses included:  
- Retail shops (11 respondents), including the combined retail/post office  
- Eateries, cafes and restaurants (seven respondents)  
- Accommodation facilities (two respondents).  
- The combined eatery/accommodation facility also considered some of their customers were visitors. | 43% of the surveyed businesses (20 respondents) estimated that few of their customers were visitors. These businesses included:  
- Retail shops (six respondents)  
- Eateries, cafes and restaurants (six respondents)  
- Other (four respondents) |
**Findings and interpretation**

Data in Figure 3-1 and Table 3-1 shows that surveyed businesses along Kelly Street and Liverpool Street have a fairly mixed customer base. The majority of the businesses receive a larger proportion of local/regional customers and customers who are visitors to Scone, than the opportunistic passing trade. A number of businesses do receive passing trade, and the data shows that the majority (53 per cent) of these businesses receive some (21 to 49 per cent) passing customers and 34 per cent of the businesses receive a few passing trade customers (less than 20 per cent). However, nine per cent (9 per cent) of the surveyed businesses perceived that they received the majority (over 50 per cent) of their customers from passing trade.

**Potential perceived impacts of the proposal on local businesses**

Businesses were asked if and how they perceived they would be impacted by the proposal. The potential perceived impacts from the proposal on the local businesses is summarised in Table 3-2.

**Table 3-2  Summary of potential perceived impacts of the proposal on local businesses**

<table>
<thead>
<tr>
<th>Perceived impact</th>
<th>Type of businesses impacted</th>
<th>Reasons for perceived impact as stated by respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>53% of the surveyed businesses (25 respondents) perceived that the proposal would have a negative impact on their business</td>
<td>Three accommodation Four eateries/cafes One combined eatery and accommodation 12 retail shops (includes post office) Three service stations Two other</td>
<td>Decreased passing trade (55% or 26 respondents). Construction-related amenity impacts (2% or one respondent). Decreased value of the business (2% or one respondent).</td>
</tr>
<tr>
<td>38% of the surveyed businesses (18 respondents) perceived that the proposal would have a positive impact on their business</td>
<td>Two accommodation Nine eateries/cafes One combined eatery and accommodation Three retail shops One service station Two other</td>
<td>Better access and parking (13% or six respondents). Improved safety (9% or four respondents). Less traffic/fewer trucks on Kelly Street (11% or five respondents). Increased local trade (2% or one respondent). Increase trade from construction workers (2% or one respondent).</td>
</tr>
<tr>
<td>Perceived impact</td>
<td>Type of businesses impacted</td>
<td>Reasons for perceived impact as stated by respondents</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
</tbody>
</table>
| 4% of the surveyed businesses (two respondents) perceived that the proposal would have no impact on their businesses and 4% of the surveyed businesses (two respondents) did not answer this question. | One eatery/café  
One retail shop | The potential impacts would depend on the final design of the proposal (allowing passing trade to continue passing through town) |
| 74% of the surveyed businesses (35 respondents) perceived that their business would continue to operate after completion of the proposal | 12 eateries/cafes  
12 retail  
Four accommodation  
Two service stations  
Four other businesses  
One combined restaurant and accommodation | Local and regional customer base would continue to come because they offer something different that people seek.  
It will not close the businesses but the business may lose some of its customers, so it would be harder to operate.  
People would still continue to visit Scone.  
If the proposal is well designed with appropriate speed and access to town businesses will not be impacted. |
| 11% of the surveyed businesses (five respondents) perceived that their business would not continue to operate after completion of the proposal | Two retail  
One eateries/café  
One service station  
One other | The business would not be viable due to the small loss in passing trade.  
One respondent said their business was already struggling and loss of passing trade would exacerbate the situation. |
| 15% of the surveyed businesses (seven respondents) said their business may/may not continue to operate even after completion of the proposal | Three retail  
One accommodation  
One eateries/café  
One combined eatery and accommodation  
One service station | Business might possibly benefit but would need to wait and see.  
Depends on the design and access point of town.  
Perhaps one casual staff may have to leave.  
Business is currently for sale and hence the respondents could not predict future of the business. |
Findings and interpretation

53 per cent of the surveyed businesses perceive that the proposal described in the REF would lead to a drop in passing trade and therefore negatively impact their business, while 38 per cent perceived that their business would be positively impacted. A large majority of businesses 74 per cent perceived that they would continue to operate after the completion of the proposal, while 15 per cent said that their business may/may not continue to operate after the completion of the proposal and 11 per cent of businesses perceive that they would be unable to continue operating after the completion of the proposal.

The 15 per cent (seven) businesses that perceived that they may or may not be able to operate after the proposal is operational included three retail stores, one eatery/café, one service station, one accommodation facility and one combined eatery and accommodation. The 11 per cent businesses (five businesses) that perceived that reduction in passing trade would potentially close their business included two retail stores, one eatery/café, one service station and one other type of business. One of the business that said they would potentially close down reported that they were already struggling and any loss in passing trade would further reduce the viability of the business.

3.3.2 Key findings from the stopper survey

Of the 99 stoppers that were surveyed, 54 (54 per cent) were considered to be passing trade customers. Of the 54 passing trade customers that were surveyed, 94 per cent (51 respondents) indicated that they would stop at Scone again, two per cent (one respondent) said they would not and four per cent (two respondents) did not answer.

The main reasons why these passing trade customers stopped in Scone were (respondents could choose more than one answer):

- To eat (70 per cent or 38 respondents).
- Other reasons (24 per cent or 13 respondents), specific reasons stated by the respondents included stopping for a coffee, getting car parts, medical reasons, to look around at the scenery and stopping for their dog.
- To look around/shop (11 per cent or six respondents).
- To stretch (six per cent or three respondents).
- To repair their car (four per cent or two respondents).

The time spent by these passing trade customers in Scone during their stop over was:

- Six per cent or three respondents said less than 15 minutes.
- 44 per cent or 24 respondents spent between 15-30 minutes.
- 31 per cent or 17 respondents spent between 30-60 minutes.
- 17 per cent or nine respondents said ‘other’ including half a day and overnight.
- Two per cent or one respondent did not answer.

Businesses mainly visited by the passing trade customers included:

- Coffee shops.
- Restaurants and take away shops, including McDonald’s.
- Retail shops, including chemist, gift shops and clothing shops.
- Supermarkets.
- Service stations.
• Pubs.
• Bank.

To understand the impacts of the proposal, the passing travelers were asked if they would continue to stop in Scone after the proposal was operational:

• 61 per cent (33 respondents) indicated that they would stop at Scone again after the bypass is completed because Scone is a convenient location, they are familiar with the area and because it offers a large town centre.
• 15 per cent (eight respondents) said no, because it would be faster to bypass the town to get to their destination, it would not be convenient to stop at Scone.
• 20 per cent (11 respondents) said maybe because it would depend on the trip or if there was a reason to take a pit stop.
• Four per cent (two respondents) did not answer.

3.3.3 Key findings of origin-destination surveys 2014 and 2016

Analysis of the origin-destination surveys carried out in 2014 and detailed in the traffic and transport study (GHD, 2015) predicts that with the operation of the proposal there could be 37 per cent drop in light vehicles passing through town (along Kelly Street) and 56 per cent drop in heavy vehicles passing through town (along Kelly Street). This means the majority of light vehicles (63 per cent) and 44 per cent of heavy vehicles have an origin or destination in Scone, or are visiting Scone (refer to Table 3-3) and would continue to provide ongoing trade for businesses such as the service stations and others.

Table 3-3 Potential average daily users of the proposal based on origin destination matrices

<table>
<thead>
<tr>
<th>Category</th>
<th>Light vehicle</th>
<th>Heavy vehicle</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of vehicles currently using the New England Highway (south and north bound of Scone during AM and PM peak hours)</td>
<td>2675</td>
<td>434</td>
<td>3109</td>
</tr>
<tr>
<td>Total projected number of vehicles that would use the New England Highway via Scone during operation of the proposal (south and north bound of Scone during AM and PM peak hours)</td>
<td>1690 (63% of total light vehicles using New England Highway south and north bound of Scone)</td>
<td>193 (44% of total heavy vehicles using New England Highway south and north bound of Scone)</td>
<td>1883 (61% of total vehicles using New England Highway south and north bound of Scone)</td>
</tr>
<tr>
<td>Total projected number of vehicles that would use the Scone Bypass (south and north bound of Scone during AM and PM peak hours)</td>
<td>985 (37% of total light vehicles using New England Highway south and north bound of Scone)</td>
<td>241 (56% of total heavy vehicles using New England Highway south and north bound of Scone)</td>
<td>1226 (39% of total vehicles using New England Highway south and north bound of Scone)</td>
</tr>
</tbody>
</table>
Additional, origin-destination surveys were carried out on 15 (Tuesday) March and 19 (Saturday) March 2016 at locations near two businesses that were considered to be representative of a business that could be reliant on passing trade. It is acknowledged that the survey data represents a point in time scenario of customers visiting the businesses. The data shows that both the businesses received passing trade and local customers. Across the two days, the data indicates that, on average, between 25 per cent and 30 per cent of vehicles visiting these businesses are highway passing trade. About 60 per cent of the highway passing trade was southbound traffic and 40 per cent northbound.

Both the 2014 and 2016 origin-destination surveys indicate the following in relation to general movement patterns through Scone along the New England Highway:

- On average, about 47 per cent of southbound traffic on the northern approach to Scone is through traffic and continues south. On average 70 per cent of this through traffic does not stop in Scone.
- On average, about 38 per cent of northbound traffic on the southern approach to Scone is through traffic and continues north. On average 68 per cent of this through traffic does not stop in Scone.

### 3.3.4 Key findings of the review of literature and plans

**Literature on economic impacts of bypasses**

Key findings of the literature on economic impacts of bypasses and their implications to Scone are presented below:

- The review identified three key factors that influence post-bypass economic change:
  - Population size – towns with small populations of less than 1000 people are more at risk of negative economic impacts than medium and larger sized towns.
  - Economic base – towns with a higher degree of dependence on highway generated trade may experience greater difficulty in managing post-bypass recovery.
  - Distance from larger economic centres - some studies found being close to a larger centre hindered a town’s recovery after a bypass, while other studies found being further away had a negative impact.

- The overall findings from the review indicate that in the long-term, highway bypasses do not have adverse economic impacts on the towns that are bypassed, and that the economic impacts that are experienced tend to be short-term and minimal. Studies show that the most notable economic benefits from bypasses occur in medium sized towns.

- A number of studies have focused on the long-term impacts of bypasses on the retail sector that rely on highway generated trade and businesses serving the needs of passing motorists. The three major findings from these studies are:
  - Retail sales are not substantially affected by a town bypass.
  - Negative impacts are relatively small and affect small communities more than medium or larger ones.
  - Other factors such as regional or national economy, rural population and trade decline and the number and scale of regional shopping malls are also important in a town’s economic health and may play a role in the impacts resulting from the bypass.
It is important to note that these studies have considered the long-term effects of the bypasses on towns, with passing years businesses adapt and adjust to the bypass. While retail sales may not be significantly affected in the long-term, in the shorter term, communities may ‘experience minor re-distributional effects – a gain in sales in the non-highway related sector and some decline in the highway related sector’ (Parolin, 2011). These impacts are more likely to be pronounced with certain businesses such as service stations and eateries than for example accommodation businesses.

The review indicated that communities that experience higher impacts from a bypass had small population, high level of highway dependency, pre-existing socio-economic problems and poorly defined town centre.

The review indicates communities which recover more quickly and successfully from the impacts of bypasses are those which have a diverse economy and implement various mitigation strategies as part of planning and preparation for the bypass. Examples of successful strategies to manage changes for bypassed towns include community and economic diversification and development plans to help businesses to transition, adapt and make adjustments to change, focus on local and regional customers, increased advertising, signage and marketing strategies; and investing in the local tourism industry. Initiatives which focus on transitioning town economies from highway dependant to tourist destinations require early collaboration between communities, business owners, local and state governments and other agencies.

Implications of the above research findings for Scone are that, due to the following factors businesses in Scone are likely to experience short term impacts and would recover in the longer term:

- Scone’s has a population base of 5079 people and plays a role as an economic hub for a number of smaller surrounding towns and for the Upper Hunter Shire (also refer to Section 3 SEIA (Appendix K in the REF)), which provides the businesses in Scone a strong local and regional customer base.

- A diverse economic base in Scone which goes well beyond highway dependent businesses including coal mining, school education, meat and meat product manufacturing, tourism, and other livestock farming with key occupations being technicians and traders, labourers, professional and machine operators.

- In terms of distance from Sydney and Newcastle and proximity to larger centres such as Muswellbrook, Singleton and Tamworth, Scone has always competed for highway generated trade with these centres, which could potentially indicate that due to such competition Scone has a lower degree of dependence on highway generated trade.

**Review of the Draft Scone Town Centre Masterplan**

The following key discussions and outcomes of the draft Masterplan documents are noted to be relevant to the supplementary SEIA.

The Draft Scone Town Centre Masterplan (Upper Hunter Shire Council, March 2016b pp70) is an initiative of the Upper Hunter Shire Council. The proposal is the primary driver for the development of the draft masterplan. The draft masterplan acknowledges that the operation of the proposal will change the nature of Scone town centre and offer opportunities for the town, where the majority of traffic would continue on the bypass, in particular the heavy vehicular traffic, and the centre of Scone would become a destination rather than a through route.
The draft masterplan aims to provide direction for how the Scone town centre, and especially Kelly Street, can be developed to take advantage of this change, by minimising the impacts on businesses of decreased quantity of passing trade and maximising the opportunities to transform the town centre. The main strategies suggested in the draft masterplan are:

- Providing a 'gateway' treatment to the entry and exit points, at the northern and southern extremities of the town centre, to 'beacon' visitors into the town off the highway / future bypass.
- The proposal would provide significant opportunities to upgrade the environmental quality of the town centre. The reduction of vehicle numbers and removal of large trucks from Kelly Street on to the proposal would create a safe, slow speed environment that would encourage pedestrian activity and generate an attractive place for gathering and socialising with outdoor cafes and restaurants, creating more opportunities for businesses in the town centre.

3.3.5 Conclusion of potential impacts of proposal on town centre businesses

Based on the discussion in sections — to 3.3.3 the following conclusions are made:

- The origin-destination surveys in 2014 predict that with the operation of the proposal there could be 37 per cent drop in light vehicles passing through town (along Kelly Street), while 63 per cent light vehicles have an origin or destination in Scone, or are visiting Scone.
- The origin destination survey in 2016 indicates that for two businesses 15 to 26 per cent of vehicles that visited these businesses were assumed to be passing trade.
- The origin destination survey in 2016 indicates that between 38 per cent and 47 per cent of New England Highway traffic is through traffic. On average between 68 and 70 per cent of this through traffic does not stop in Scone.
- Stopper surveys show that after the proposal is operational there would be a potential reduction of 15 per cent of stoppers in Scone, while the majority (81 per cent) of stoppers would/may continue to stop in Scone while passing.
- Therefore, findings from the origin destination surveys and the stopper surveys indicate that while there would be a reduction in passing trade, a large proportion of vehicles and stoppers would continue to visit and stop in Scone even after the proposal is operational.
- The design changes to the proposal since the REF was displayed would provide easy and safe connections between the town and the highway at the northern and southern intersections creating opportunities for passing trade vehicles to enter and exit the town in a safe and easy manner. These design changes also complement the outcomes of the Draft Scone Town Centre Master Plan by providing the entry and exit points for ‘gateway’ locations to continue to attract passing trade off the highway/proposal (Upper Hunter Shire Council, March 2016a).
- Findings from the business surveys combined with the findings from the origin-destination surveys indicate that businesses in Scone have a wide customer base. The majority of businesses rely on local/regional customers and visitors to Scone for a large proportion of their customers. However, there are a small number (nine per cent) of businesses, which perceive that passing trade makes up the majority of their customers and over half of the businesses perceive that they receive some (20 to 49 per cent) passing trade.
The majority of the businesses would therefore experience a reduction in customers due to the likely reduction in passing trade, however, they would continue to operate based on the local/regional customers, visitors and passing trade that would continue to go through town.

More specifically the businesses that perceived they would experience adverse impacts from the proposal included:

- 15 per cent (seven) businesses perceived that the likely reduction in passing trade may or may not make their businesses unviable as they were uncertain about the impacts of the proposal on the viability of their business. These businesses included three retail stores, one eatery/café, one service station, one accommodation facility and one combined eatery and accommodation. Of these one business was on sale at the time of the survey for reasons not related to the proposal, the business owner was therefore unsure of the impact the proposal would have on the business.

- 11 per cent (five) businesses perceived that the likely reduction in passing trade would potentially make their businesses unviable, and may potentially close their business. These businesses included two retail stores, one eatery/café, one service station and one other type of business. Of these one business reported that they were already struggling and therefore perceived that any reduction in passing trade would likely result in closing of the business.

In addition, evidence from the literature review on economic impacts of bypasses (refer to Section 3.3.4) shows that, in the case of Scone, impacts on local businesses would generally be short term. In addition, the majority of the businesses would recover from such short term impacts because of the diverse economy, larger population base and implementation of various mitigation strategies developed as part of planning and preparation for the bypass. Together, these factors would continue to bring local, regional and visitor trade. As described in the existing environment in Section 3.4 of the SEIA (Appendix K in the REF) that Scone has a diverse economy with employment and business opportunities in a range of industry sectors such as horse/equine, tourism, agriculture (including sale yards), food processing (the abattoir), health services, administrative services (council), education (schools, TAFE, equine research centre), mining and manufacturing/processing industrial estate. These economic activities are likely to continue to draw visitors to town who would create ongoing demand for goods and services provided by businesses in Scone town centre.

As mentioned above, complementary strategies that may be implemented by Council and businesses to manage the changes the proposal would bring to the town include the development of the Draft Scone Town Centre Masterplan. The purpose of the masterplan is to provide a direction for how the Scone Town Centre, especially Kelly Street, can be developed to take advantage of this change, and minimise the impacts of decreased ‘passing’ trade (Upper Hunter Shire Council, March 2016b). The plan includes strategies such as:

- Gateway treatment at the southern arrival point to create a welcoming experience and ‘pull’ visitors travelling to the north off the highway / future bypass and turn right into the town centre (refer to Upper Hunter Shire Council, March 2016a pp14).

- Developing opportunities provided by the proposal, such as transformation of town centre to take advantage of reduced traffic and improved amenity along Kelly Street to promote visible outdoor dining and an enhanced pedestrian experience (also refer to Section 4.4.2 of the SEIA and Upper Hunter Shire Council, March 2016b).
4. Mitigation measures and management strategies

This supplementary SEIA has identified potential impacts to individual private properties and community facilities. Socio-economic mitigation measures which are additional or amended from those provided in the REF are outlined below.

- During detail design, Roads and Maritime will identify mitigation measures to be implemented where increased flooding is predicted to adversely affect access, property or infrastructure.
- Where there is a risk that vibration activities may cause damage to nearby structures and buildings, Roads and Maritime will carry out a building condition inspection and prepare a Building Condition Inspection Report for every property or structure likely to be affected.
- The impact of land acquisition will be assessed in accordance with the *Land Acquisition Information Guide* (Roads and Maritime, 2014) and the *Land Acquisition (Just Terms Compensation) Act 1991*. Impacts from the acquisition on owners remaining holdings will be considered in this process. As required and in consultation with owners, Roads and Maritime will engage the use of appropriately qualified professionals to assess these impacts and identify alternate opportunities for their remaining holdings.
- Roads and Maritime will manage its residue land in accordance with Roads and Maritime’s disposal process. In accordance with this process, and in conjunction with acquisition negotiations consideration will be given to landowners requests for land swaps to return farmland.
- Complete property adjustments for fencing, driveways/access and other property infrastructure impacted by the project in consultation with affected property owners, including any adjustments identified during land acquisition.
- Roads and Maritime will continue to contact the remaining landowner impacted by property acquisition to arrange for an interview as per Section 2 of this Supplementary Socio-Economic Impact Assessment to determine the need for any additional mitigation measures.
- Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council and Scone and District Netball Association, will provide for the temporary relocation of the impacted netball courts to an equivalent or better standard, inclusive of both impacted area and associated facilities.
- Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the relocation or replacement of the impacted playing field and park within the Bill Rose Sports Complex to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the *Land Acquisition Information Guide* (Roads and Maritime, 2014) and the *Land Acquisition (Just Terms Compensation) Act 1991*. 
• Prior to the facility being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the temporary relocation or replacement of the impacted dedicated off-leash dog park between Liverpool Street and Kingdon Street to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the *Land Acquisition Information Guide* (Roads and Maritime, 2014) and the *Land Acquisition (Just Terms Compensation) Act 1991*.

• Prior to the facilities being closed for public access, Roads and Maritime, in consultation with Upper Hunter Shire Council, will provide for the relocation or replacement of the impacted play and gym equipment currently located on Kingdon Street to an equivalent or better standard, inclusive of both impacted area and associated facilities. Where relocation or replacement is provided for as part of land acquisition from Upper Hunter Shire Council, land acquisition will be carried out in accordance with the *Land Acquisition Information Guide* (Roads and Maritime, 2014) and the *Land Acquisition (Just Terms Compensation) Act 1991*.

• Access along the Liverpool Street bike track will be maintained during construction. Where access along the bike track is unable to be maintained a safe alternative route will be provided.

• Roads and Maritime will install fencing on the boundary of the project and the rugby field in Susan Street, in consultation with Upper Hunter Shire Council and Scone Rugby Club. This fencing is to be suitably designed to retain balls within the rugby field.

• Roads and Maritime will undertake further consultation with the user groups of White Park to identify potential construction and operational impacts and develop appropriate mitigation.

• Roads and Maritime will, in consultation with Upper Hunter Shire Council, provide appropriate support for plans to revitalise Scone town centre, for the purpose of encouraging motorists to continue to pass through or visit Scone. This will include measures such as streetscape and landscape treatments, subject to funding agreements for the project. Any streetscape and landscape treatments will be determined following finalisation of any town centre revitalisation plans.

• Roads and Maritime will develop a signage strategy for the entrances to Scone, in consultation with Upper Hunter Shire Council to encourage motorists to visit Scone. This will include signage showing:
  - the travel distances and estimated times for travelling routes via the bypass compared to travelling via the Scone town centre,
  - services and facilities available within the Scone township, and
  - any visitor attractions within the Scone township.

• Town entrance signage impacted by the project would be relocated in consultation with Upper Hunter Shire Council.
5. References


GHD 2016a, New England Highway bypass at Scone, Landholder and Property Impact Interview Results.

GHD 2016b, New England Highway bypass at Scone, Business and Stopper Survey Results.


Rowe H, Phibbs P 2005, The Karuah Highway Bypass Economic and Social Impacts - The 1 year report, University of Sydney.

RTA 2007, Gerringong to Bomaderry Princes Highway Upgrade - Route Options Development, Appendix F - Preliminary Social Economic Impacts Report.


Appendices
Appendix A – Business and Stopper Survey Results
Roads and Maritime Services
New England Highway bypass at Scone
Business and Stopper Survey Results

April 2016
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Appendices

Appendix A – Business survey
Appendix B – Stopper survey
1. **Introduction**

1.1 **Background**

Roads and Maritime Services (Roads and Maritime) propose to upgrade the New England Highway to bypass Scone (the proposal). The proposal would include building a two lane highway bypass to the west of Scone. The proposal includes about four kilometres of new two lane highway with at-grade connections south and north of Scone, two overbridges, crossing of Figtree Creek, and an at-grade connection at St Aubins Street.

A review of environmental factors (REF), including a socio-economic impact assessment (SEIA), were prepared for the proposal and placed on public display between December 2015 and February 2016.

Based on community feedback received during the display potential impacts from loss of passing trade were raised as an issue. In order to address this issue, business surveys and stopper surveys have been carried out as documented in this report.

1.2 **Methodology**

1.2.1 **Business surveys**

Business surveys were undertaken on 14, 15 and 16 March 2016 by GHD’s community engagement team.

The purpose of the survey with businesses on Kelly Street was to:

- Understand the perceived degree of dependence businesses on passing trade, potential seasonal variations in passing trade, nature and proportion of local/regional market.
- Understand the perceived impacts of the proposal on businesses – changes to passing trade, changes in the operation of the businesses.
- Potential strategies to minimise impacts of the proposal on local businesses.

A total of 47 businesses that potentially receive passing trade were surveyed. The following tasks were undertaken to develop and administer the survey:

- Develop survey questions based on consultations related to business impacts undertaken in Scone for the SEIA and literature on business impacts from bypasses (refer to Appendix A).
- Creating survey template in SurveyMonkey to allow for systematic data entry, compilation of data in excel and ease in data analysis.
- The selected businesses were contacted a week in advance to inform them about the survey. The survey was administered face to face by GHD staff and survey responses were directly inserted into SurveyMonkey. Hard copies of the survey were also made available.
1.2.2 Stopper surveys

To supplement the business survey, an intercept survey of stoppers (passing trade) along Kelly Street was undertaken by GHD’s community engagement team on 15, 16, 18 and 19 March 2016. The purpose of this survey was to:

- Understand the attitudes of passing stoppers and their reasons for stopping in Scone including length of their stop over, activities undertaken during the stop over, money spent in the community (at businesses in Kelly street) during the stop over and potential for repeat visit.
- Understand potential changes in stoppers behaviour once the proposal is operational.
- Ask for recommendations to encourage stoppers to continue to visit Scone after the bypass is operational.

A total of 99 intercept survey responses of people stopping in Scone at Kelly Street were undertaken.

The following tasks were undertaken to develop and administer the survey:

- Develop survey questions (refer to Appendix B).
- Creating survey template in SurveyMonkey to allow for systematic data entry, compilation of data in excel and ease in data analysis.
- The intercept surveys were carried out on Kelly Street in the vicinity of businesses that potentially receive passing trade. The intercept surveys were administered face to face by GHD staff and input directly into SurveyMonkey. Hard copies of the survey were made available, if required.

1.3 Purpose of this report

The purpose of this report is to present the analysis and findings of the business and stopper survey responses. Businesses survey findings are presented in Section 2 and stopper survey findings are presented in Section 3.
## 2. Business survey results

### 2.1 Profile of businesses

A representative sample of a total of 47 businesses that were identified as potentially receiving passing trade were surveyed. Business representatives were asked to provide the name of their business (Question 2) and choose a category which best described their business (Question 3). A list of businesses surveyed is provided in Table 2-1 and summarised in Figure 2-1.

**Table 2-1 Businesses that were surveyed (Questions 2 and 3)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Business name</th>
<th>Type/category of business</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Airlie House Hotel</td>
<td>Accommodation Facility</td>
</tr>
<tr>
<td>2.</td>
<td>Highway Caravan Park</td>
<td>Accommodation Facility</td>
</tr>
<tr>
<td>3.</td>
<td>Portman House Apartments</td>
<td>Accommodation Facility</td>
</tr>
<tr>
<td>4.</td>
<td>Scone Caravan Park</td>
<td>Accommodation Facility</td>
</tr>
<tr>
<td>5.</td>
<td>Scone Motor Inn</td>
<td>Accommodation Facility</td>
</tr>
<tr>
<td>6.</td>
<td>A Fridge and a Frypan</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>7.</td>
<td>Asser House Cafe</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>8.</td>
<td>Chocolate &amp; Moss</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>9.</td>
<td>Connaught Chinese Restaurant</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>10.</td>
<td>Cross Country Cafe &amp; Restaurant</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>11.</td>
<td>Eagle Boys Pizza</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>12.</td>
<td>Golden Fleece</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>13.</td>
<td>Kerv</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>14.</td>
<td>La Vita Bella</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>15.</td>
<td>McDonald's</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>16.</td>
<td>Paddock to Pantry</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>17.</td>
<td>Subway</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>18.</td>
<td>The Cottage Restaurant</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>19.</td>
<td>Willow Tree Hotel</td>
<td>Eatery/Café/Restaurant</td>
</tr>
<tr>
<td>20.</td>
<td>Belmore Hotel</td>
<td>Eatery/Café/Restaurant &amp; Accommodation Facility</td>
</tr>
<tr>
<td>21.</td>
<td>Royal Hotel &amp; Motel</td>
<td>Eatery/Café/Restaurant &amp; Accommodation Facility</td>
</tr>
<tr>
<td>22.</td>
<td>Scone Discount Drug Store</td>
<td>Other (Chemist)</td>
</tr>
<tr>
<td>23.</td>
<td>Lost Sock Launderette</td>
<td>Other (Laundromat)</td>
</tr>
<tr>
<td>24.</td>
<td>BWS</td>
<td>Other (Liquor Store)</td>
</tr>
<tr>
<td>25.</td>
<td>Scone Newsagency</td>
<td>Other (Newsagency)</td>
</tr>
<tr>
<td>26.</td>
<td>Visitor Centre</td>
<td>Other (Tourism)</td>
</tr>
<tr>
<td>27.</td>
<td>Betta Electrical</td>
<td>Retail</td>
</tr>
<tr>
<td>28.</td>
<td>Cellarbrations</td>
<td>Retail</td>
</tr>
<tr>
<td>29.</td>
<td>Define Style</td>
<td>Retail</td>
</tr>
<tr>
<td>30.</td>
<td>Farrams Clothing and Footwear</td>
<td>Retail</td>
</tr>
<tr>
<td>31.</td>
<td>Gift Shop</td>
<td>Retail</td>
</tr>
<tr>
<td>No.</td>
<td>Business name</td>
<td>Type/category of business</td>
</tr>
<tr>
<td>-----</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>32.</td>
<td>Hunt a Book</td>
<td>Retail</td>
</tr>
<tr>
<td>33.</td>
<td>Ice Box Liquor</td>
<td>Retail</td>
</tr>
<tr>
<td>34.</td>
<td>Kakao Dream</td>
<td>Retail</td>
</tr>
<tr>
<td>35.</td>
<td>Melanie Matthews Jewellers</td>
<td>Retail</td>
</tr>
<tr>
<td>36.</td>
<td>Shell</td>
<td>Retail</td>
</tr>
<tr>
<td>37.</td>
<td>Potter Macqueen</td>
<td>Retail</td>
</tr>
<tr>
<td>38.</td>
<td>Saddlery</td>
<td>Retail</td>
</tr>
<tr>
<td>39.</td>
<td>Sarhan’s</td>
<td>Retail</td>
</tr>
<tr>
<td>40.</td>
<td>Scone Chemist</td>
<td>Retail</td>
</tr>
<tr>
<td>41.</td>
<td>Scone Sports</td>
<td>Retail</td>
</tr>
<tr>
<td>42.</td>
<td>Not identified by name</td>
<td>Retail</td>
</tr>
<tr>
<td>43.</td>
<td>Scone Post Office</td>
<td>Retail &amp; Post Office</td>
</tr>
<tr>
<td>44.</td>
<td>Caltex</td>
<td>Service Station</td>
</tr>
<tr>
<td>45.</td>
<td>BP (opposite Scone Motor Inn)</td>
<td>Service Station</td>
</tr>
<tr>
<td>46.</td>
<td>BP Scone (near McDonald’s)</td>
<td>Service Station</td>
</tr>
<tr>
<td>47.</td>
<td>Liberty Service Station</td>
<td>Service Station</td>
</tr>
</tbody>
</table>

The number and type of businesses surveyed are presented in Figure 2-1 and listed below (note the percentages do not add up to 100% as respondents were able to choose more than one category):

- Retail (34% or 16 businesses).
- Eatery/café/restaurant (30% or 14 businesses).
- Other (11% or five (5) businesses), including chemist, tourism and laundromat services.
- Accommodation (11% or five (5) businesses).
- Service station (9% or four (4) businesses plus one (1) that identified itself as retail).
- Eatery/Café/Restaurant and Accommodation Facility 4% (two (2) businesses).
- Retail and Post Office 2% (one (1) business).
2.2 Length of operation

Business representatives were asked how long they have operated their business (Question 4). Responses are presented in Figure 2-2 and listed below:

- 18 businesses (38%) have operated over ten years.
- 12 businesses (26%) have operated between two to five years.
- Eight (8) businesses (17%) have operated between five to ten years.
- Five (5) businesses (11%) have operated between one to two years.
- Three (3) businesses (6%) have operated for less than one year.
- One (1) respondent (2%) did not answer this question.

Figure 2-2 Length of time the business has operated (Question 4)
2.2.1 Staffing at the businesses

Business representatives were asked to provide the number of employees hired in full-time, part-time and casual roles within their business (Question 5). Data below shows most businesses hire a combination of full time and casual staff.

**Full-time staff**
- 35 businesses (74%) hired between one to ten full-time staff.
- Two (2) businesses (4%) hired between 11 and 20 full-time staff.

**Part-time staff**
- 12 businesses (26%) hired between one to ten part-time staff.

**Casual staff**
- 19 businesses (40%) hired between one to ten casual staff.
- Five (5) businesses (11%) hired between 11 and 20 casual staff.
- One (1) business (2%) hired over 20 casual staff.

One (1) respondent (2%) did not answer this question.

2.3 Understanding customer base

Business representatives were asked if they have undertaken any customer-related research/survey in the recent past (Question 6). Figure 2-3 shows that:

- 30 respondents (64%) answered no they had not undertaken customer research/survey.
- 16 respondents (34%) answered yes they had undertaken customer research/survey.
- One (1) respondent (2%) did not answer this question.

![Figure 2-3 Customer-related research/survey (Question 6)](image-url)
2.4 Customer profile

Business representatives were asked if they knew where their customers came from (Question 7). All respondents answered this question as summarised below:

- 42 respondents (89%) answered yes.
- Four (4) respondents (9%) answered no.
- One (1) respondent (2%) was unsure.

2.4.1 Passers, visitors and local/regional customers

Business representatives were asked to identify whether their customers were local/regional; visitors; passing trade; or other (Question 8). Respondents could select more than one answer. All respondents answered this question. Figure 2-4 shows that:

- All 47 respondent businesses (100%) said they served local/regional customers.
- 46 respondent businesses (98%) said they served customers who were visitors to Scone as well as served passing trade.
- Five (5) respondent businesses (11%) mentioned other customer types. These included repeat customers, semi-permanent residents, advanced bookings and drop-in customers.

Data shows that the customer base for all respondent businesses was spread across all three types of customers namely local/regional, visitors to town and passing trade.

Figure 2-4 Customer type (Question 8)

2.4.2 Frequency of customers served by type

Business representatives were asked how often they served customers by type (Questions 9 and 10). Each respondent could choose more than one response, hence the total percentage does not add up to 100%. Figure 2-5 shows that:

- Businesses served local/regional customers as follows:
  - 45 respondents (98%) perceived they served local/regional customers five to seven days each week.
  - One (1) respondent (2%) perceived they served local/regional customers three to four days each week.
  - One (1) respondent (2%) did not answer this question.
Businesses served passing trade as follows:
- 40 respondents (85%) perceived they served passing customers five to seven days each week.
- Five (5) respondents (11%) perceived they served passing customers three to four days each week.
- One (1) respondent (2%) perceived they served passing customers one to two days each week.
- One (1) respondent did not answer this question (2%).

Data shows that almost all (98%) respondent businesses served local/regional customers on a daily basis and 85% respondent businesses served passing trade on a daily basis.

![Graph showing frequency of customers served by type]

**Figure 2.5 Frequency of customers served by type (Questions 9 and 10)**

### 2.4.3 Proportion of customers by type

Business representatives were asked to estimate the proportion of customers at their business who were local/regional; visitors; or passing trade (Question 12). Figure 2.6 illustrates the proportion of various types of customers received by businesses, they are:

**Local/regional customers**
- 31 respondents (66%) estimated that the majority of their customers were from the local/regional area.
- Ten (10) respondents (28%) estimated some of their customers were from the local/regional area.
- One (1) respondent (2%) had few local/regional customers.

**Passing trade**
- 25 respondents (53%) estimated that some of their customers were passing trade.
- 16 respondents (34%) estimated that few of their customers were passing trade.
- Four (4) respondents (9%) estimated that majority of their customers were passing trade.
Visitors

- 23 respondents (49%) estimated that some of their customers were visitors.
- 20 respondents (43%) had few customers who were visitors.
- One (1) respondent (2%) estimated that the majority of their customers were visitors.
- One (1) respondent (2%) had no customers who were visitors.

Two (2) respondents (4%) did not answer this question.

Data shows that majority (66%) of the respondent businesses perceived that they received ‘majority’ (over 50%) of their customers from local/regional area and 28% of respondent businesses perceived that they received ‘some’ (20-49%) of their customers from local/regional area. While a larger percentage (53%) of respondent businesses perceived that they received ‘some’ (21-49%) of their customers from passing trade and only 9% of the respondent businesses perceived they received ‘majority’ (over 50%) of their customers from passing trade.

![Proportion of customers who were local/regional; visitors; or passing trade (Question 12)](image)

**Figure 2-6 Proportion of customers who were local/regional; visitors; or passing trade (Question 12)**

### 2.4.4 Type and proportion of customers received by respondent businesses

Further analysis to understand which type of businesses receive which type of customers in what proportion is shown in Table 2-2.
## Table 2-2 Businesses by type and proportion of customers

<table>
<thead>
<tr>
<th>Type</th>
<th>Majority customers (over 50%)</th>
<th>Some customers (21-49%)</th>
<th>Few customers (1-20%)</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local/ regional</td>
<td>Retail shops (11 respondents), including the combined retail/post office</td>
<td>Retail shops (six (6) respondents), Eateries, cafes and restaurants (four (4) respondents)</td>
<td>Only one (1) accommodation facility considered a few of their customers were local/regional to the area.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eateries, cafes and restaurants (11 respondents), including the combined restaurant/accommodation facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (four (4) respondents)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service stations (three (3) respondents)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passing trade</td>
<td>Accommodation (one (1) respondent)</td>
<td>Retail shops (12 respondents), including the combined retail/post office</td>
<td>Retail shops (five (5) respondents), Eateries, cafes and restaurants (four (4) respondents), Other (four (4) respondents)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eatery/café/restaurant (one (1) respondent)</td>
<td>Eateries, cafes and restaurants (eight (8) respondents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service station (one (1) respondent)</td>
<td>Accommodation facilities (two (2) respondents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (one (1) respondent)</td>
<td>The combined eatery/accommodation facility also considered some of their customers were passing trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitors</td>
<td>Only one (1) accommodation facility considered most of their customers were visitors</td>
<td>Retail shops (11 respondents), including the combined retail/post office</td>
<td>Retail shops (six (6) respondents), Eateries, cafes and restaurants (six (6) respondents), Other (four (4) respondents)</td>
<td>One (1) service station did not receive any visitors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eateries, cafes and restaurants (seven (7) respondents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accommodation facilities (two (2) respondents).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The combined eatery/accommodation facility also considered some of their customers were visitors.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.5 Understanding passing trade

2.5.1 Weekly and seasonal variation for passing trade

Business representatives were asked if they receive passing trade on weekdays or weekends (Question 11). Respondents were able to choose more than one answer. All respondents answered this question. Figure 2-7 shows that:

- All businesses (100%) received passing trade on weekdays.
- 42 businesses (89%) received passing trade on weekends.

Figure 2-7 Passing trade during the week (Question 11)

Business representatives were asked whether they experienced any seasonal variation in the amount of passing trade at their business (Question 13). Figure 2-8 shows that:

- 35 respondents (74%) answered yes they experience seasonal variation.
- 11 respondents (23%) answered no they do not experience seasonal variation.
- One (1) respondent (2%) did not answer this question.

Figure 2-8 Seasonal variation of passing trade (Question 13)
The most common business types which experienced a seasonal variation in passing trade were (refer to Figure 2-9):

- Eateries, cafes and restaurants (13 respondents).
- Retail shops (12 respondents).
- Accommodation facilities (five (5) respondents).
- Service stations and other (both two (2) respondents).

![Figure 2-9 Seasonal variation of passing trade by business type (Question 13)](image)

Respondents were also asked to specify any periods when they receive more passing trade (e.g. months, school holidays, events) (Question 14). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. Figure 2-10 shows seasonal variation in passing trade:

- 26 respondents (70%) received more passing trade when there were events or public/school holidays. Events included Horse Festival, Scone Cup, Tamworth Country Music Festival and year-round sporting events.
- Ten (10) respondents (27%) received more passing trade during summer, particularly around Christmas.
- Seven (7) respondents (19%) received more passing trade during autumn, particularly during Horse Festival in May.
- Five (5) respondents (14%) received more passing trade during winter, including visitors passing through Scone to Barrington Tops.
- One (1) respondent (3%) received more passing trade during spring.
- Ten (10) respondents (21%) did not answer this question.
2.5.2 Estimated one time spend by passing trade

Business representatives were asked to estimate the amount that the passing trade customers would spend at their business per visit (Question 15). This was an open-ended question. Similar answers have been grouped under categories. Figure 2-11 shows that:

- 11 respondents (23%) estimated that customers spent under $30.
- Five (5) respondents (11%) estimated that customers spent between $30 and $49.
- Five (5) respondents (11%) estimated that customers spent between $50 and $79.
- 12 respondents (26%) estimated that customers spent over $80.
- 12 respondents (26%) stated that the amount varied.
- Two (2) respondents (4%) did not answer this question.
2.6 Perceived impacts of the proposal on respondent businesses

Business representatives were asked whether the proposal would have any impacts on the operation of their business (Question 16), as shown in Figure 2-12,

- 43 respondents (91%) answered yes.
- Three (3) respondents (6%) answered no.
- One (1) respondent (2%) did not answer this question.

![Pie chart showing perceived impacts on businesses, with 91% answered yes, 6% answered no, and 2% did not answer.]

**Figure 2-12 Perceived impact on the business (Question 16)**

Business representatives were asked if the proposal would create positive, negative or no impacts on the operation of their business (Question 17). Some respondents chose more than one response, therefore percentages do not add up to 100%. Responses are presented in Figure 2-13 and described below:

- 25 respondents (53%) considered that there would be a negative impact on their business, some of these businesses included:
  - Retail shops (12 respondents), including the combined retail/post office.
  - Eateries, cafes and restaurants (four (4) respondents).
  - Accommodation facilities and service stations (both three (3) respondents).
- 18 respondents (38%) considered that there would be a positive impact on their business, some of these businesses included:
  - Eateries, cafes and restaurants (nine (9) respondents).
  - Retail shops (three (3) respondents).
  - Accommodation facilities and other (both two (2) respondents).
- Three (3) respondents (6%) considered that there would be no impact on their business.
- Two (2) respondents (4%) did not answer this question.
Further the business representatives were asked to describe the potential impacts on the operation of their business as a result of the proposal (Question 18). This was an open-ended question. Two (2) respondents (4%) did not answer this question. Similar comments were grouped under categories and are described below and illustrated in Figure 2-14.

**Potential negative impacts were perceived to be:**

- Decreased passing trade (55% or 26 respondents).
- Construction-related amenity impacts (2% or one (1) respondent).
- Decreased value of the business (2% or one (1) respondent).

**Potential positive impacts were perceived to be:**

- Better access and parking (13% or six (6) respondents).
- Improved safety (9% or four (4) respondents).
- Less traffic/fewer trucks on Kelly Street (11% or five (5) respondents).
- Increased local trade (2% or one (1) respondent).
- Increase trade from construction workers (2% or one (1) respondent).

**Other comments**

- The potential impacts would depend on the final design (9% or four (4) respondents).
- Unsure (2% or one (1) respondent).
Business representatives were asked if they would continue their business after the completion of the proposal (Question 19). All respondents answered this question. Figure 2-15 shows that:

- 35 respondents (74%) answered yes they would continue to operate after completion of the proposal, these businesses were 12 eateries/cafes, 12 retail, four accommodation, two service stations, four other businesses, one combined restaurant and accommodation. The reasons they would continue to operate included:
  - Local and regional customer base would continue to come.
  - Because they offer something different that people seek.
  - It won’t close the businesses but we may lose part of customers, so it would be harder to operate.
  - People will still continue to visit Scone.
  - If the proposal is well designed with appropriate speed and access to town businesses will not be impacted.

- Five (5) respondents (11%) answered no they would not be able to continue to operate after completion of the proposal. These businesses were two retail, one eateries/café, one service station and one other business. The reasons they would not be able to continue to operate included:
  - Two respondent said the small loss of passing trade, would make the business inviable.
  - One respondent said they were already struggling and loss of passing trade would exacerbate the situation.

- Seven (7) respondents (15%) were unsure and these businesses were three retail, one accommodation, one eateries/café, one combined eatery and accommodation, one service station. The reasons from their uncertainty were:
  - Business might possibly benefit but will need to wait and see.
  - Depends on the design and access point of town.
  - Perhaps one casual staff may have to leave.
  - Business is currently for sale.


## 2.7 Suggested strategies to mitigate potential business impacts

### 2.7.1 Suggested strategies for Roads and Maritime to consider

Business representatives were asked to suggest strategies that Roads and Maritime should consider to minimise potential negative impacts on their business (Question 20). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. All respondents answered this question. The most common responses were (also refer to):

- Provide better connection between the bypass and the town (55% or 26 respondents).
- Provide signage regarding exit to Scone town (45% or 21 respondents).
- Lower speed limits on entrance/exits to Scone (19% or nine (9) respondents).
- Promote Scone (e.g. marketing) (15% or seven (7) respondents).
- Other strategies (13% or six (6) respondents), including installing a speed camera in the town centre and creating truck only lanes.
Strategies the businesses would consider to apply

Business representatives were asked to suggest strategies that they/their business would consider to minimise potential negative business impacts (Question 21). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. The most common responses were (also refer to Figure 2-17):

- No strategy (23% or 11 respondents).
- Increase marketing and promotions (17% or eight (8) respondents).
- Increase signage (15% or seven (7) respondents).
- Other strategies (11% or five (5) respondents), including improvements to the town centre, improving access in and out of Scone, and promoting Scone as a destination.
- Improve website, social media, etc. (9% or four (4) respondents).
- Four (4) respondents (9%) did not answer this question.

Figure 2-16 Suggested strategies for Roads and Maritime (Question 20)
2.8 Other matters related to potential business impacts

Business representatives were able to provide other comments for consideration (Question 22). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. The most common responses included (also refer to Figure 2-18):

- Other (17% or eight (8) respondents), including timing of the level crossing barriers as it can result in congestion affecting the highway, and installing a speed camera.
- Truck access (e.g. to industrial areas) needs to be addressed (13% or six (6) respondents).
- Six (6) respondents (13%) supported the proposal.
- Business impacts (9% or four (4) respondents), including decreased passing trade.
- Need for increased consultation to inform the proposal (9% or four (4) respondents).
- Two (2) respondents (4%) did not answer this question.

Figure 2-17 Suggested strategies for the business (Question 21)

Figure 2-18 Other matters (Question 22)
3. **Stopper survey results**

3.1 **Passers, visitors and local residents**

Prior to completing the survey, respondents were asked if they were local to Scone; visiting; or passing through Scone on their way to another destination, Figure 3-1 shows that:

- 54 respondents were passing through (55%).
- 18 respondents were visiting (18%).
- Two (2) respondents were local (2%).
- 25 respondents did not answer this question (25%).

![Figure 3-1 People who were local, visiting or passing through Scone](image)

3.2 **Survey location**

The location where respondents were surveyed (Question 4) was recorded. Figure 3-2 shows the number of surveys by location:

- 46 respondents (46%) were outside retail shops.
- 20 respondents (20%) were outside eateries/cafes.
- 18 respondents (18%) were outside Elizabeth Park/Visitor Information Centre.
- One (1) respondent (1%) was outside an accommodation facility.
- 15 survey locations (15%) were not specified.
3.3 **Profile of respondents**

3.3.1 **Place of residence**

Respondents were asked to provide their place of residence and postcode (Question 5). The most common places of residence were:

- Tamworth and Newcastle (both 9% or nine (9) respondents).
- Muswellbrook, Brisbane and Sydney (all 5% or five (5) respondents).
- Murrurundi, Aberdeen, Denman and Maitland (all 3% or three (3) respondents).
- Merriwa, Wingen, Sandy Hollow and Gold Coast (all 2% or two (2) respondents).

3.3.2 **Purpose of trips**

Respondents were asked to provide the purpose of their stopover in Scone (Question 6). Respondents were able to choose one or more answers from the list provided. All respondents answered this question. Figure 3-3 shows that:

- 43 respondents (43%) stopped in Scone to eat.
- 24 respondents (24%) took a break from driving.
- 22 respondents (22%) were browsing or shopping.
- 19 respondents (19%) took a toilet break.
- Three (3) respondents (3%) were repairing their car.
- Two (2) respondents (2%) were refueling their car.
Respondents were also able to provide other reasons for their stopover (Question 6). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. The most common reasons included (also refer to Figure 3-4):

- Visiting family/friends (14% or 14 respondents).
- The respondent worked within the local area (9% or nine (9) respondents).
- Accessing health services or stopped for a coffee (both 5% or five (5) respondents).
- Haircut, running errands or walking the dog (all 3% or three (3) respondents).

**Figure 3-4 Other purposes (Question 6)**
3.4 Factors that influenced the decision to stop in Scone

Respondents were asked to identify the factors which influenced their decision to stop in Scone (Question 7). Respondents were able to choose one or more factors. Figure 3-5 shows that:

- 31 respondents (31%) stopped to access a specific service.
- 28 respondents (28%) felt that Scone was the ideal distance for a stopover from the start of their journey.
- 23 respondents (23%) were familiar with the local area and services.
- 18 respondents (18%) stopped for other reasons.
- Seven (7) respondents (7%) stopped after seeing the town.
- One (1) respondent (1%) stopped because they saw signs indicating that Scone was a close distance.
- Three (3) respondents (3%) did not answer this question.

![Figure 3-5 Factors which influenced people to stop in Scone (Question 7)](image)

**Figure 3-5 Factors which influenced people to stop in Scone (Question 7)**

Respondents were able to provide other factors which influenced their decision to stop in Scone. 18 respondents (19%) provided other reasons. The most common responses were to visit friends/family or work reasons (both 4% or four (4) respondents).

3.5 Length of time spent in Scone

Respondents were asked to indicate the length of time that they planned to spend in Scone (Question 8). Figure 3-6 shows that:

- Six (6) respondents (6%) would stay for less than 15 minutes.
- 29 respondents (29%) would stay between 15 to 30 minutes.
- 28 respondents (28%) would stay between 30 to 60 minutes.
- 12 respondents (12%) would stay for half a day.
- 17 respondents (17%) would stay for longer periods varying from 2 days to 2 weeks.
- Six (6) respondents (6%) would stay overnight.
- Two (2) respondents (2%) did not answer this question.
3.6 Scone as first stop in the journey

Respondents were asked if Scone was the first stop since their journey started (Question 9). Figure 3-7 shows that:

- 61 respondents (61%) answered yes it was their first stop from the start of the journey.
- 28 respondents (28%) answered no it was not their first stop from the start of the journey.
- 11 respondents (11%) did not answer this question.

3.7 Frequency of travel to Scone

Respondents were asked how often they travelled through Scone (Question 10). Figure 3-8 shows that:

- No respondents travelled through Scone daily.
- 17 respondents (17%) travelled through weekly.
- 26 respondents (26%) travelled through monthly.
- 23 respondents (23%) travelled through once every few months.
- Nine (9) respondents (9%) travelled through yearly.
- 22 respondents (22%) travelled through rarely.
- Three (3) respondents (3%) did not answer this question.

**Figure 3-8 Frequency travelling through Scone (Question 10)**

Respondents were asked if they always stopped in Scone when passing through the town (Question 11). Figure 3-9 shows that:

- 24 respondents (24%) always stopped in Scone.
- 24 respondents (24%) mostly stopped in Scone.
- 26 respondents (26%) occasionally stopped in Scone.
- Five (5) respondents (5%) stopped for the first time in Scone.
- 11 respondents (11%) rarely stopped in Scone.
- Nine (9) respondents (9%) did not answer this question.

**Figure 3-9 Frequency stopping in Scone (Question 11)**
### 3.8 Type of businesses visited during stopover in Scone

Respondents were asked to provide the type of businesses they had visited or planned to visit in Scone (Question 12). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories and respondents also visited more than one type of business during their visit. All respondents answered this question. Figure 3-10 shows that:

- 51 respondents (51%) had visited or planned to visit a restaurant/café.
- 47 respondents (47%) were visiting retail shops.
- 14 respondents were visiting other business types (14%), including real estate, finance, chemist and tourism information.
- Eight (8) respondents (8%) did not specify the business type.

![Figure 3-10 Types of businesses visited (Question 12)](image)

### 3.9 Amount of money spent in Scone

Respondents were asked to estimate how much they would likely spend during their stopover in Scone (Question 13). This was an open-ended question. Similar answers have been grouped under categories. Figure 3-11 shows that:

- 26 respondents (26%) would spend under $30.
- Three (3) respondents (3%) would spend between $30 and $49.
- 16 respondents (16%) would spend between $50 and $79.
- 14 respondents (14%) would spend over $80.
- 36 respondents (36%) did not specify an amount.
- Four respondents (4%) did not answer this question.
Factors influencing stoppers to stop in Scone

Respondents were asked to identify the factors that they like about Scone (Question 14). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories and respondents also chose more than one factor. The most common responses were (refer to Figure 3-12):

- Quiet rural character (28% or 28 respondents).
- Convenient location and proximity to place of residence (27% or 27 respondents).
- Range of shops (16% or 16 respondents).
- Range of amenities (e.g. parks, toilets) (8% or eight (8) respondents).
- Sense of community (7% or seven (7) respondents).
- 19 respondents (19%) did not specify a reason and three (3) respondents (3%) did not answer this question.
Respondents were asked whether they would stop in Scone again (Question 15). Figure 3-13 shows that:

- 86 respondents (87%) said yes they will visit Scone again.
- Six (6) respondents (6%) said no they will not visit Scone again.
- Seven (7) respondents (7%) did not answer this question.

![Pie chart showing responses to Question 15](chart.png)

**Figure 3-13 People who would visit Scone again (Question 15)**

Respondents were able to provide comments to support their answer. This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. The most common responses were (also refer to Figure 3-14):

- Convenient location and proximity (16% or 16 respondents).
- Local character (10% or ten (10) respondents).
- Other (7% or seven (7) respondents), including that they would rather visit Scone than another town.
- Friends/family (4% or four (4) respondents).
- Sense of community and already familiar with the area (both 3% or three (3) respondents).
Figure 3-14 Factors which would encourage people to stop in Scone again (Question 15)

Respondents were asked if they would recommend others to visit Scone (Question 16), Figure 3-15 shows that:

- 83 respondents (84%) answered yes they would recommend others to visit Scone.
- Three (3) respondents (3%) answered no they would not recommend others to visit Scone.
- 15 respondents (15%) did not answer this question.

Figure 3-15 People who recommend others to visit Scone (Question 16)

3.11 Perceived impacts of the proposal

Respondents were asked if they would continue to stopover in Scone after the proposal is completed and why (Question 17). Figure 3-16 shows that:

- 59 respondents (60%) answered yes they will continue to stop in Scone for reasons such as convenient location to stop during their journey, familiar with the local area, liked the variety of shops, liked the local rural character of the community, visiting family and friends or for work purposes.
11 respondents (11%) answered no for reasons such as would prefer to keep travelling towards their final destination, inconvenient location from start of journey and would stop only if necessary, didn’t have a reason to stop in Scone.

18 respondents (18%) were unsure.

11 respondents (11%) did not answer this question.

Figure 3-16 People who would continue to stop in Scone after the proposal is completed (Question 17)

3.12 Suggestions to promote Scone

Respondents were asked to provide ideas and suggestions to attract visitors to Scone after the proposal is completed (Question 18). This was an open-ended question. Similar answers have been grouped under categories. As a result, an answer could be categorised under one or more categories. The most common responses were (also refer to Figure 3-17):

- Provide more signage (19% or 19 respondents).
- None (16% or 16 respondents). Six (6) respondents (6%) also felt that people would continue to stop at Scone.
- Market Scone as a destination (14% or 14 respondents), including advertising events and activities.
- Provide/upgrade amenities (10% or ten (10) respondents), including public toilets at parks and amenities at campgrounds.
- More variety of shops (6% or six (6) respondents).
3.13 Factors influencing passing travelers to stop in Scone

3.13.1 Purpose of visit

As mentioned in Section 3.1, 54 out of 99 respondents were passing travelers (55%). Passing travelers were asked to provide the purpose of their stopover in Scone (Question 6). They were able to choose one or more answers from the list provided. The most common responses were:

- To eat (70% or 38 respondents).
- Other reasons (24% or 13 respondents), such as looking for a coffee shop, looking for car parts, scenery and stopping for their dog.
- To look around/shop (11% or six (6) respondents).
- To stretch (6% or three (3) respondents).
- To repair their car (4% or two (2) respondents).

Passing travelers were asked whether they would stop in Scone again (Question 15):

- 94% (51 respondents) indicated that they would stop at Scone again.
- 2% (one (1) respondent) said no.
- 4% (two (2) respondents) did not answer.

Figure 3-17 Suggestions to attract visitors to Scone after the proposal is completed (Question 18)
3.13.2 Length of stay

Passing travellers were asked to indicate the length of time that they planned to spend in Scone (Question 8):

- Less than 15 minutes 6% or three (3) respondents.
- 15-30 minutes (44% or 24 respondents).
- 30-60 minutes (31% or 17 respondents).
- Other specified time (17% or nine (9) respondents). 13% or seven (7) respondents would stay less than half a day, while 4% or two (2) respondents) would stay overnight.
- One (1) respondent did not answer (2%).

3.13.3 Businesses visited by passing travellers

Passing travellers were asked to provide the type of businesses they had visited in Scone (Question 12). This was an open-ended question. Businesses included:

- Coffee shops.
- Restaurants and take away shops, including McDonald’s.
- Retail shops, including chemist, gift shops and clothing shops.
- Supermarkets.
- Service stations.
- Pubs.
- Bank.

3.13.4 Perceived impacts of the proposal

Passing travelers were asked if they would continue to stopover in Scone after the proposal is completed and why (Question 17):

- 61% (33 respondents) indicated that they would stop at Scone again after the bypass is completed. Their reasons included:
  - It is convenient or along the way home.
  - Scone is the largest town centre.
  - They are familiar with the town/shops.
- 15% (eight (8) respondent) said no. Their reasons included:
  - It is faster to bypass the town.
  - Scone is inconvenient or not along the way home.
- 20% (11 respondents) said maybe
  - It depends on the trip destination/purpose.
  - Only if there is a need to stop e.g. toilet break, refuel.
- 4% (two (2) respondents) did not answer.
Appendix A – Business survey
Introductory text

Hi I am ______________________ from GHD, my colleague would have spoken to you over the phone last week or so about us being around these couple of days. We are here on behalf of RMS to conduct further investigations regarding the proposed New England Bypass at Scone. Can I please have 10 minutes of your time to discuss your business and your views of the changes to traffic passing through town as a result of the bypass.

All of the information you provide will be strictly confidential and will only be used to assist in understanding the socio-economic impacts of the bypass on local businesses.

*Allow to tick multiple answers for relevant multiple choice questions

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<tbody>
<tr>
<td>1</td>
<td>Date of survey</td>
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<tr>
<td>2</td>
<td>Business name</td>
</tr>
<tr>
<td>3</td>
<td>Type of business</td>
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<tr>
<td></td>
<td>Eatery/café/restaurant</td>
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<tr>
<td></td>
<td>Accommodation facility</td>
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<td></td>
<td>Retail</td>
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<tr>
<td></td>
<td>Service station</td>
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<td></td>
<td>Other _____________________</td>
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<tr>
<td>4</td>
<td>How long have you been operating this business?</td>
</tr>
<tr>
<td></td>
<td>Less than one year</td>
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<tr>
<td></td>
<td>1-2 years</td>
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<td>2-5 years</td>
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<td></td>
<td>5-10 years</td>
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<tr>
<td></td>
<td>More than 10 years</td>
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<tr>
<td>5</td>
<td>How many employees do you have?</td>
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<tr>
<td></td>
<td>Full time_____</td>
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<td></td>
<td>Part time______</td>
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<tr>
<td></td>
<td>Casual_______</td>
</tr>
<tr>
<td>6</td>
<td>Have you ever undertaken any customer related research/survey?</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Do you know where your customers come from?</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Maybe</td>
</tr>
<tr>
<td>8</td>
<td>Where do your customers come from?</td>
</tr>
<tr>
<td></td>
<td>Local/regional from Scone and surrounding towns/areas</td>
</tr>
<tr>
<td></td>
<td>Visitors to Scone and surrounding towns/region (eg tourists, business visitors, family visitors)</td>
</tr>
<tr>
<td></td>
<td>Passing trade (those passing through Scone via New England Highway)</td>
</tr>
<tr>
<td></td>
<td>Other _____________________</td>
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<tr>
<td>9</td>
<td>How often do you receive local/regional customer?</td>
</tr>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td></td>
<td>1-2 days a week</td>
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<td></td>
<td>3-4 days a week</td>
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<td></td>
<td>5-7 days a week</td>
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<tr>
<td>10</td>
<td>How often do you receive customers passing through town?</td>
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<tr>
<td></td>
<td>Never</td>
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<tr>
<td></td>
<td>1-2 days a week</td>
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<td></td>
<td>3-4 days a week</td>
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<td></td>
<td>5-7 days a week</td>
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<td>11</td>
<td>Which days of the week do you receive customers passing through town?</td>
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<td></td>
<td>Weekdays</td>
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<td></td>
<td>Weekend</td>
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<td>12</td>
<td>Can you tell roughly what is the proportion of customers you receive from each of the following groups:</td>
</tr>
<tr>
<td></td>
<td>Local/regional</td>
</tr>
<tr>
<td></td>
<td>None (0%)</td>
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<tr>
<td></td>
<td>Very little (1-20%)</td>
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<tr>
<td></td>
<td>Some (21-49%)</td>
</tr>
<tr>
<td></td>
<td>Majority (50% and above)</td>
</tr>
<tr>
<td></td>
<td>Visitors</td>
</tr>
<tr>
<td></td>
<td>None (0%)</td>
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<tr>
<td>Question</td>
<td>Yes</td>
</tr>
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<td>-------------------------------------------------------------------------</td>
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<tr>
<td>Is there any seasonal variation in the proportion of customers you receive who are passing through town?</td>
<td>Yes</td>
</tr>
<tr>
<td>If yes – when do you receive more highway passing trade? (specific months, school holidays, festivals in Scone, etc)</td>
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<tr>
<td>On average, how much do the customers passing through town spend at your business per visit?</td>
<td></td>
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<td>Do you think the bypass would have any impacts on your business?</td>
<td>Yes</td>
</tr>
<tr>
<td>What kind of impact would you expect from the bypass?</td>
<td>Positive</td>
</tr>
<tr>
<td>Can you describe the impacts you would expect on your business from the bypass?</td>
<td></td>
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<tr>
<td>Would you continue to be in business after the bypass is operational?</td>
<td>Yes</td>
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<tr>
<td>What strategies should RMS consider to minimise negative impacts on businesses?</td>
<td></td>
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<tr>
<td>What kind of strategies would you consider to minimise negative impacts on your business?</td>
<td></td>
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<tr>
<td>Are there any other matters related to potential impacts on your business that you would like to discuss?</td>
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Appendix B – Stopper survey
**Introductory text**

Hi I am ______________________ from GHD.

On behalf of Roads and Maritime Services, we are conducting a survey of motorists who stop while travelling through Scone via the New England Highway.

The information you provide will be used to assist in understanding the socio-economic impacts of the proposed bypass the town.

Are you a local resident, a visitor to Scone or a through traveller stopping in Scone?

If through traveller, can I please have 5-7 minutes of your time to go through a few questions.

*Allow to tick multiple answers for all multiple choice questions*

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<tbody>
<tr>
<td>1</td>
<td>Date of survey</td>
</tr>
<tr>
<td>2</td>
<td>Day of the week</td>
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</table>
| 3 | Time of day | Morning (8am to 12 noon)  
Lunch time (12noon to 2 pm)  
Afternoon (2pm to 4 pm)  
Evening (4 pm to 8 pm) |
| 4 | Location | Outside eateries/cafes  
Outside retail  
Outside accommodation facilities  
Outside service station |
| 5 | Where do you live? | Post code_____________ |
| 6 | Purpose of your stop in Scone? | To eat  
To stretch (break from driving)  
To use toilet  
To refuel  
Repair car  
To look around/shop  
To check for accommodation  
Other_____________ |
| 7 | What made you decide to stop in Scone? | It is just the right distance for a stop over from the start of you journey  
I saw the town and decided to stop  
I saw the signs that a town was approaching and decided to stop  
I know/like the place and always stop here for goods and services  
I stop here for specific services |
| 8 | How long do you plan to stop in Scone? | Less than 15 minutes  
15-30 Minutes  
30-60 Minutes  
Half a day  
Overnight |
| 9 | Is this the first stop since beginning this journey? | Yes  
No |

If no – where did you stop earlier?

| 10 | How often do you travel through Scone? | Daily  
Weekly  
Monthly  
Every few months  
Every year  
Seldom |

| 11 | Do you always stop in Scone when you pass through? | Always  
Mostly  
Occasionally  
First time  
rarely |

<p>| 12 | What kind of businesses have |   |</p>
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<tr>
<td>13</td>
<td>Approximately how much money do you think you will/have spent in Scone during this stop?</td>
</tr>
<tr>
<td>14</td>
<td>What do you like about Scone to consider it for your stopover?</td>
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</tbody>
</table>
| 15 | Would you consider stopping here again?  
|    | Why?  
| 16 | Would you recommend others to stop in Scone?  
|    | Yes  
|    | No  
| 17 | (prompt for surveyor to provide overview of the bypass route and distance)  
|    | A bypass to the New England Highway is proposed at Scone, would you still continue to stop in Scone after the bypass?  
|    | Why?  
| 18 | What would you recommend should be considered to attract stoppers like yourself to continue to stop in Scone after the bypass is operational? |
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Document Status

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<th>Reviewer</th>
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<td>S Pearce</td>
<td>G Robinson</td>
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