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### Glossary of terms and abbreviations

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<tr>
<td>CEMP</td>
<td>Construction Environment Management Plan</td>
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<tr>
<td>CNVMP</td>
<td>Construction, Noise and Vibration Management Plan</td>
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<td>LGA</td>
<td>Local Government Area</td>
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<td>LTTMP</td>
<td>Long Term Transport Master Plan</td>
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<td>NSW</td>
<td>New South Wales</td>
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<tr>
<td>RMS</td>
<td>Roads and Maritime Services</td>
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<tr>
<td>RTA</td>
<td>Roads and Traffic Authority (now RMS)</td>
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<tr>
<td>State Suburbs</td>
<td>State Suburbs are an ABS approximation of localities gazetted by the Geographical Place Name authority in each State and Territory.</td>
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Executive summary

Roads and Maritime Services (RMS) propose to upgrade approximately 11.5 kilometres of the Princes Highway between Schofields Lane (south of Berry) and Cambewarra Road, Bomaderry (the proposal), in New South Wales (NSW) to provide a four-lane highway (two lanes in each direction) with median separation. The proposal would provide increased road safety and traffic efficiency in the South Coast region.

The proposal objectives are to:

- Improve road safety.
- Improve efficiency of the Princes Highway between Schofields Lane (south of Berry) and Cambewarra Road, Bomaderry.
- Support regional and local economic development.
- Provide value for money.
- Enhance potential beneficial environmental effects and manage potential adverse environmental impacts.
- Optimise the benefits and minimise adverse impacts on the local social environment.

The purpose of this report is to assess the socio-economic impacts of the proposal and identify appropriate management and mitigation measures. This study has been undertaken by AECOM in association with RM Planning.

The study area for the purpose of this report includes the road corridor as well as the land immediately adjacent, and the wider catchment as it relates to current usage of the Princes Highway.

The methodology for the socio-economic assessment has had regard to the structure set out in RMS’ ‘Socio-economic Practice Note (RMS 2013) for socio-economic assessments’. It relies on the description of the existing social and economic context, analysis of key stakeholder issues, and assessment of impacts and mitigation measures. The methodology relies on quantitative as well as qualitative data.

The region is defined by both its agricultural history and a more recent focus on tourism. As a result of community consultation undertaken as part of the proposal, it was apparent a large proportion of the local community values highly the visual amenity of the region and considers the pastoral surroundings as an asset that draws tourists while continuing to be productive agricultural land.

The population in the region is stable, with only modest growth expected between 2011 and 2036. The study area has a homogeneous and ageing population, with the largest industry of employment category sector being in health care and social assistance.

Key stakeholder issues to emerge during consultation for the proposal included access arrangements, the minimisation of potential impacts to agricultural land and farming activities, business and the local economy, businesses and properties, social amenity, heritage, and community impacts. Stakeholders also expressed a feeling of uncertainty around impacts to property and businesses, and on-going livelihood. These issues, including the proposal design response, are discussed in Chapters 4 and 5 of this report.

The assessment of impacts has taken into account both construction phase impacts and operational impacts. The nature of anticipated impacts is discussed in detail in Chapter 5 of this report.

The proposal would be likely to create both positive and negative impacts on the region and its community.
The proposal is expected to have negligible impact on air quality along the route. Visual impacts are expected to result from the increased road footprint, the large cutting at Strong's Road and Jaspers Brush Road, the introduction of grade separated facilities, the removal of vegetation and the introduction of a heavy vehicle inspection bay at Jaspers Brush. There are around 57 residences or businesses that would be eligible for the consideration of noise mitigation where feasible and reasonable. The consideration of 43 architectural property treatments is proposed to mitigate the noise impacts of the proposal.

The proposal would provide safer access routes for the community. Access to community facilities would largely remain unaffected. Introduction of a central median would change trip routes and in some cases lengthen trips to and from homes and businesses.

Uncertainty is an impact that would be felt mostly prior to the construction stage of the proposal but can be managed through continuing consultation.

Access arrangements such as right-in / right-out restrictions, access routes and driveway alterations would impact approximately 32 properties along the route and ongoing consultation with owners would continue with the aim of maintaining essential movements on and off sites. Introduction of a central median would improve road safety, but would also increase travel times for properties that are currently able to make right-in / right-out turns.

Safety would also improve for other users, such as cyclists, who would use the highway shoulder and be separated from light and heavy vehicles including school buses. Pedestrian and cycle safety on the ‘Sandtrack’ would also improve as a result of through traffic diverting to the proposal.

Improved connectivity to the NSW South Coast, Wollongong and Sydney, is expected to benefit the tourism industry in the study area and support local businesses through improved safety and reduced travel times for general users of the route. Reduced travel times may, in turn, encourage greater workforce participation in the study area. Businesses along the route are not expected to suffer adverse impacts as a result of changes to access arrangements, as customers and patrons would still be able to reach these businesses via u-turns, grade separated facilities and grade separated half-interchange.

Of the 50 agricultural properties likely to be affected by the proposal, three would be subject to more extensive land acquisition, and two of these are expected to remain viable. The viability of the third property, a horse stud, may be affected by the proposal. Ongoing consultation would continue to address potential solutions for this particular property.

During the construction phase of the proposal, 17 potential sites have been identified for use as temporary construction ancillary facilities. Some of the proposed sites are currently owned by RMS, while others would need to be leased or acquired for the proposal.

Visual and air quality impacts may occur from excavation and stockpiles at temporary ancillary facilities during construction. An air quality assessment undertaken for the proposal indicated that the average level of dust would exceed minimum criteria at eight residences. The actual impacts are anticipated to be lower than those modelled given conservative assumptions made about the wind erosion such as simultaneous stockpiling on all ancillary sites over a 12 month period, which is unlikely to occur.

Agricultural land that would be acquired or leased for use as a temporary ancillary facility site during construction and is not required following the construction period may potentially be rehabilitated and sold on completion of the proposal.

The study recommends a number of mitigation measures that are intended to minimise impacts that would be associated with the construction and operation of the proposal. These are detailed at Section 6 of this report.

On balance, it is considered that the overall socio-economic impact of the proposal would be positive for the region.
1 Introduction

The Roads and Maritime Services of NSW (RMS) is undertaking an assessment in accordance with Part 5 of the Environmental Planning and Assessment Act 1979 for the proposed upgrade of approximately 11.5 kilometres of the Princes Highway between Schofields Lane (south of Berry) and Cambewarra Road, Bomaderry (the proposal). The proposal would provide a four-lane highway (two lanes in each direction) with median separation.

The proposal is one of a series of upgrades to sections of the Princes Highway which aims to provide at least a four-lane divided highway between Waterfall and Jervis Bay Road, Falls Creek. This would improve road safety and traffic efficiency, including for freight, on the NSW South Coast.

The following socio-economic assessment has been developed to inform the environmental impact assessment for the proposal which is documented in the Princes Highway Upgrade – Berry to Bomaderry Review of Environmental Factors (AECOM, 2013).

1.1 Purpose of the report

The purpose of this report is to assess the potential social and economic impacts of the proposal and to identify management and mitigation measures for the impacts.

This assessment provides an overview of the existing economic and social environments in which the proposal is located and of the communities impacted by the proposal. The potential impacts are the outcome of the interaction between the proposal and the existing environment and are considered from local, regional and State perspectives.

1.2 Methodology

The methodology for the socio-economic assessment has been developed to adhere to the structure set out in RMS’ ‘Socio-economic Practice Note for socio-economic assessments (RMS 2013)’. It relies on the description of the existing social and economic context, analysis of key stakeholder issues and assessment of impacts and mitigation measures.

The methodology relies on quantitative as well as qualitative data. The analysis of key stakeholder issues and community values identified during proposal consultation also draws on interviews with property owners.

1.3 Data sources used to inform the study

A variety of data sources have been used to inform the description of the existing socio-economic environment and local and regional context of the proposal. Socio-economic indicators have been sourced from the 2011 Census of Population and Housing (Australian Bureau of Statistics, 2012) and population projections issued by the New South Wales Department of Planning and Infrastructure (NSW Department of Planning and Infrastructure, 2010).
Previous assessments undertaken for the entire upgrade of the Princes Highway between Gerringong and Bomaderry have also been used to inform this study. These previous assessments include:

- Gerringong to Bomaderry Route Options Report (AECOM, 2007).
- Gerringong to Bomaderry Preferred Route Option Report (AECOM, 2008).
- Gerringong to Bomaderry Route Options Submissions Report (AECOM, 2008).
- Gerringong Upgrade Review of Environmental Factors (AECOM, 2009).
- Foxground and Berry Bypass Environmental Assessment (AECOM, 2012).

Other data sources used include:

- Agricultural Land Classification – Department of Primary Industries.
- Shoalhaven City Council Development Application Register.
- Department of Planning and Infrastructure Major Projects Register and South Coast Regional Strategy.
- Shoalhaven City Council Website.

1.4 Geographical description of the study area

The assessment considers impacts on communities along the road corridor itself, as well as those lands immediately adjacent to it. The wider catchment is also considered in the assessment as it relates to current usage of the Princes Highway, for example for trips between Sydney and the South Coast. The regional context of the proposal is shown in Figure 1-1.

The study area has been profiled by examining the data for the State Suburbs of Meroo Meadow, Jaspers Brush ¹ and Bomaderry. As only a small section of the alignment falls within the Berry State Suburb, this has been excluded from data for the study area.

The study area is situated entirely within the Shoalhaven Local Government Area (LGA), so the geographical areas of comparison to the study area profile are NSW and the Shoalhaven LGA.

¹ There was a boundary adjustment to the Jaspers Brush State Suburb at the 2011 Census that reduced it in size. Data from the 2006 and 2011 Census does not align for Jaspers Brush and should not be directly compared.
Figure 1-1 Regional context
1.5 Proposal overview

RMS proposes to upgrade about 11.5 kilometres of the Princes Highway between Schofields Lane (south of Berry) and Cambewarra Road, Bomaderry. The proposal would provide a four-lane divided highway (two lanes in each direction) with median separation.

The proposal is one of a series of upgrades to sections of the Princes Highway which aims to provide at least a four-lane divided highway between Waterfall and Jervis Bay Road, Falls Creek. This would improve road safety and traffic efficiency, including for freight, on the NSW South Coast.

Key features of the proposal are shown in Figure 1-2 and include:

- Upgrade of the existing highway, including widening from two lanes to a four-lane divided highway (two lanes in each direction) with median separation (wire rope barriers generally, or concrete barriers where space is constrained, such as at bridge locations).
- Provision for widening of the highway (if required in the future) to six lanes within the road corridor between Schofields Lane and around Pestells Lane.
- Tie-in to the Berry bypass to the north of the proposal.
- Grade-separated facilities\(^2\) at:
  - Jaspers Brush Road and Strongs Road.
  - Morschels Lane and Devitts Lane.
- A grade-separated half-interchange at:
  - Pestells Lane and Meroo Road.
- Protected right turn bays at:
  - Mullers Lane (northbound).
  - Croziers Road (southbound).
  - Between Strongs Road and Turners Lane at about chainage 23200 (northbound).
  - Between Strongs Road and Turners Lane at about chainage 24050, adjacent to Silos Winery (southbound).
  - Lamonds Lane (northbound).
  - Boxsells Lane (southbound).
  - South of Abernethys Lane at about chainage 28590 (northbound).
- U-turn facilities at:
  - Mullers Lane (to travel southbound)\(^3\).
  - Croziers Road (to travel northbound).
  - Between Strongs Road and Turners Lane at about chainage 23200 (to travel southbound).
  - Between Strongs Road and Turners Lane at about chainage 24050, adjacent to Silos Winery (to travel northbound).
  - Lamonds Lane (to travel southbound).
  - South of Abernethys Lane at about chainage 28590 (to travel southbound).

\(^2\) Unlike a standard grade separated interchange which has full length on-ramps and off-ramps, a grade separated facility has deceleration lanes to a connecting road that links to an overpass or underpass. Grade separated facilities have been used along the Pacific Highway and are informally referred to as Type S interchanges.

\(^3\) The u-turn facility within the proposal area at Mullers Lane (southbound) will be constructed under separate approval as part of the Foxground and Berry bypass project, however the right turn bay would be constructed as part of the Berry to Bomaderry upgrade.
• A large cutting at Strongs Road, Jaspers Brush of around 300 metres long and up to a maximum of ten metres deep in addition to various smaller cuttings along the proposal.

• Eight bridges over waterways:
  - Creek crossing No. 1 – Unnamed drainage line at chainage 19350, a three span concrete structure around 44 metres long and three metres high.
  - Creek crossing No. 2 – Unnamed drainage line at chainage 19800, a single span concrete structure around 33 metres long and four metres high.
  - Creek crossing No. 3 – Flying Fox Creek, a single span concrete structure around 18 metres long and seven metres high.
  - Creek crossing No. 4 – Jaspers Brush Creek, a three span concrete structure around 44 metres long and six metres high.
  - Creek crossing No. 5 – Wileys Creek, a five span concrete structure around 76 metres long and five metres high.
  - Creek crossing No. 6 – Tandingulla Creek, a three span concrete structure around 44 metres long and three metres high.
  - Creek crossing No. 7 – Tullian Creek, a three span concrete structure around 44 metres long and five metres high.
  - Creek crossing No. 8 – Abernethys Creek, a three span concrete structure around 76 metres long and two metres high.

• Major drainage and flood mitigation structures:
  - Flood mitigation bridge – located just south of O’Keefes Lane at chainage 21200, a three span concrete structure around 45 metres long and 3.5 metres high.
  - Pestells Lane culverts – eight cell box culvert, with each cell around 2.5 metres wide, 1.5 metres high and 130 metres long.
  - Overflow channel – 300 metre long channel located upstream of the alignment to allow flood waters to follow the existing drainage path (between chainage 22320 and 22650).

• A northbound heavy vehicle inspection bay at Jaspers Brush, staffed as needed and locked when not in use.

• Modifications to the connections between local roads and the highway, including Strongs Road, Jaspers Brush Road, Morschels Lane, Devitts Lane, Pestells Lane, Meroo Road and Abernethys Lane.

• Physical modifications to about 16 existing property accesses.

• Relocation and formalisation of existing southbound bus stops at Mullers Lane, Jaspers Brush Road, Morschels Lane and Lamonds Lane and existing northbound bus stops at Boxsells Lane, Croziers Road and Strongs Road. Bus stops would be relocated to sites where there is provision for safe vehicular access, set down and pick up.

• Removal of the current southbound bus stop adjacent to Croziers Road.

• Ancillary operational facilities, including permanent detention basins and stormwater treatment facilities.

• Tie-in with the existing highway at the Cambewarra Road / Moss Vale Road roundabout.

Temporary construction ancillary facilities, including construction compounds, stockpile sites, haulage roads and sediment basins would be established and operated for construction and located as shown on Figure 1-2.

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4 Existing waterway crossings at Flying Fox, Jaspers Brush and Abernethys creeks are all currently spanned by bridges. These three bridges would be replaced as part of the proposal. The remainder of the existing waterway crossings are culverts. New bridges would be constructed at these locations.
MUST READ INFO:

SAME FILE AS "BBU DETAILS OF THE PROPOSAL" + "BBU OVERVIEW OF PROPOSAL ZONING"

(Difference: In "overview" file lane markings are switched off and layer "midian" switched on. In the "zoning" file the cuts and fills, waterways, railway and roads are also switched off. In the detailed file all lane markings are switched on but "midian" switched off)

NOTE: ANCILLARY SITES LAYER ADDED TO FIGURE 1-1 ONLY!

Figure 1-2 Key features of the proposal
2 Overview of the social policy framework

The socio-economic impact of the proposal on the study area is assessed within the existing social policy framework. A number of relevant local and State government policies and plans exist for the study area. More detail on these plans and policies is provided in Appendix A.

2.1 NSW Long Term Transport Master Plan

The NSW Long Term Transport Master Plan (NSW Government, 2012) will be the guiding transport planning and policy document to support the goals in the NSW 2021 Plan. The Master Plan will also guide the prioritisation of available funds for Transport to deliver maximum benefits to NSW.

The Master Plan identifies solutions for NSW’s transport system, including providing essential access for Regional NSW and supporting efficient and productive freight transport.

Actions within the Master Plan include the upgrade of the Princes Highway between Gerringong and Bomaderry. The Master Plan states that this will provide enhanced freight connectivity to Port Kembla, along with increased capacity, improved traffic flow, reduced travel time and improved road safety for all users.

2.2 NSW 2021: A Plan to Make NSW Number One

The NSW 2021: A Plan to Make NSW Number One (NSW Government, 2011) is a 10-year plan to guide the NSW Government’s policy and budget decision making and, in conjunction with the NSW Budget, to deliver on community priorities. The plan will drive the agenda for change in NSW including the building of infrastructure that drives the economy and improves people’s lives.

The goals within the plan that are supported by the proposal are:

- Goal 3 – Drive economic growth in regional NSW.
- Goal 7 – Reduce travel times.
- Goal 10 – Improve road safety.
- Goal 19 – Invest in critical infrastructure.

2.3 South Coast Regional Strategy 2006-2031

The South Coast Regional Strategy (NSW Department of Planning, 2007) applies to the Shoalhaven, Eurobodalla and Bega Valley LGAs. The purpose of this Strategy is to “ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment needs of the Region’s population over the next 25 years”. This proposal aligns with this strategy by minimising the impact on other potential land uses by utilising the existing highway alignment as far as possible and by providing a safe route to the proposed job opportunities and homes. The Princes Highway Gerringong to Bomaderry upgrade is listed as a major infrastructure item to pursue as part of the Strategy.

2.4 Shoalhaven Economic Development Strategy

The Shoalhaven Economic Development Strategy (An Enterprising Alternative) (NSW Department of Planning, 2007) was developed by Shoalhaven City Council in collaboration with the NSW Department of State and Regional Development, the Commonwealth Department of Transport and Regional Services, and the Shoalhaven Area Consultative Committee. The Shoalhaven Economic Development Strategy aims to guide future economic growth in the region that is “strategic, specific and sustainable”. The proposal would support this aim by providing a safe route for commuters, business travellers, tourists and freight vehicles.
2.5 Nowra-Bomaderry Structure Plan

The purpose of the *Nowra Bomaderry Structure Plan* (Shoalhaven City Council, 2005) is to provide a framework for the integrated development of the Nowra-Bomaderry area addressing the implications of the ongoing growth of the urban area and the long term role of Nowra-Bomaderry as the regional service provider. The proposal would contribute to supporting the growth which is forecast by the State government and accommodated by the Structure Plan through the inclusion of a development framework to cater for the forecast growth.

2.6 Shoalhaven Community Strategic Plan 2020

The *Shoalhaven Community Strategic Plan 2020* (Shoalhaven City Council, 2010) was developed to create strategies to achieve Council’s vision for the Shoalhaven. The plan focuses on the four key areas where the community wishes to make a difference, being community, environment, economy and leadership. The proposal would support the plan by providing safe access for the community to job opportunities and their homes.
3 Description of the existing socio-economic environment

This section provides an overview of the historical and existing socio-economic environment. The following community profiles provide the base data on which the assessment and evaluation of the proposal can be based.

3.1 Historical background

The Shoalhaven region has strong historic roots in the dairy industry and the Berry Rural Cooperative and the Shoalhaven Dairy Cooperative are still active in the area. Prior to European settlement, the area between Stanwell Park and the Shoalhaven River, which includes the proposal and surrounds, formed the Aboriginal tribal area of the Wodi Wodi people. The land in and around Berry and Bomaderry was granted to the Berry family by Governor Brisbane in the 1820s for the purpose of dairy farming (Navin Officer Heritage Consultants Pty Ltd, 2009). Some of the Aboriginal people from the area were employed in pastoral activities. In the early twentieth century the Berry Estate was subdivided and purchased by dairy farmers and prospective dairy farmers for small-scale dairy farms, producing small quantities of milk, cream and cheese. In the latter half of the twentieth century more than 100 dairy farms were amalgamated to form just 12 farms by 2009 (Navin Officer Heritage Consultants Pty Ltd, 2009).

Nowra was established as a government-planned village in the mid-1800s, becoming the centre for administration and governance of the Shoalhaven Region by the latter half of the century (Shoalhaven City Council, 2005). A dramatic rise in population in the late nineteenth century resulted in the development of Nowra as a regional hub serving the Shoalhaven area. In 1881 the construction of the Shoalhaven River Bridge connected Bomaderry and Nowra by road and the construction of the railway to Bomaderry in 1893, linked Nowra-Bomaderry to wider markets (Shoalhaven City Council, 2005).

Jaspers Brush and Meroo Meadow in the early and middle years of the twentieth century were small but active communities, with community facilities such as schools, churches and community halls (Navin Officer Heritage Consultants Pty Ltd, 2009). During World War II, Nowra became a military town with the establishment of The Royal Australian Naval Air Station HMAS Albatross. After the war, the defence service personnel remained and this, in conjunction with considerable expansion of industry and tourism changed the social and economic character of the town (Shoalhaven City Council, 2005). Industry developed in Bomaderry including a paper mill and a rubber manufacturing plant. As Nowra and Berry continued to grow, the small communities of Jaspers Brush and Meroo Meadow entered a period of decline as people moved away. This resulted in the closure of community facilities, churches and schools, for which there was no longer sufficient demand.

Nowra remains the regional hub of government, administrative, retail and commercial activity in the Shoalhaven region. Today Bomaderry, the town to the north of Nowra on the Princes Highway, is often considered a suburb of Nowra. It currently contains a mix of heavy industrial, commercial and residential uses.

3.2 Overview of the local and regional socio-economic context

3.2.1 Socio-demographic indicators

The study area has been profiled by examining socio-demographic data for the State Suburbs of Meroo Meadow, Jaspers Brush and Bomaderry. All socio-demographic data presented in this section has been sourced from the 2011 Census of Population and Housing, unless otherwise stated. A detailed set of data tables are provided at Appendix B.
Key socio-economic characteristics in the study area are as follows:

- **Population growth**: The population of the study area declined from 6960 people in 2006 to 6917 in 2011. Shoalhaven LGA overall experienced five per cent growth over the same period to 92,812 people in 2011. Population forecasts for the Shoalhaven LGA show modest growth of 1.1 per cent per year between 2011 and 2036 ([NSW Department of Planning and Infrastructure, 2010]). The majority of growth in Shoalhaven LGA is expected to be concentrated in Nowra-Bomaderry, strengthening its role as the major residential, employment and administrative centre in the region ([NSW Department of Planning, 2007]).

- **Median age**: In 2011, the median age in the study area ranged between 43 and 49 years. Both the study area and Shoalhaven LGA (46 years) had higher median ages than New South Wales (38 years) in 2011. Median age increased in the study area and Shoalhaven LGA between 2006 and 2011.

- **Population aged 65 and over**: Both the study area (21.2 per cent) and Shoalhaven LGA (23.3 per cent) had a high proportion of population aged 65 and over compared with New South Wales (14.7 per cent), which may indicate that these areas are a favoured by retirees. The proportion of the population aged 65 and over in the study area, Shoalhaven LGA and New South Wales has increased between 2006 and 2011 reflecting the overall aging population trend across Australia.

- **Indigenous population**: In the study area 6.8 per cent of the population is Indigenous. This proportion is higher than Shoalhaven LGA (4.7 per cent) and New South Wales (2.5 per cent). The proportion of Indigenous population has increased in the study area, Shoalhaven LGA and New South Wales between 2006 and 2011.

- **Ethnicity**: The study area and Shoalhaven LGA are relatively homogenous with 2.9 per cent and 3.4 per cent respectively of the population speaking a language other than English at home. In NSW, 22.5 per cent of the population speak a language other than English at home.

- **Core activity need for assistance**: The study area (6.5 per cent) and Shoalhaven LGA (7.0 per cent) had a higher proportion of the population with need for assistance than NSW (five per cent) in 2011.

- **Travel to work**: The majority of the study area and Shoalhaven population travels to work by car (90 per cent in both areas), compared to 78 per cent across NSW as a whole.

- **Vehicles per household**: In the study area, one motor vehicle per household was the most common arrangement with 41.7 per cent of households owning one motor vehicle in 2011. Both the Shoalhaven LGA (41.8 per cent) and NSW (37.8 per cent) also had one motor vehicle per household as the most common arrangement.

- **Median weekly household income**: The median weekly household income in the study area ranged between $812 and $1437 a week in 2011. The median weekly household incomes in Shoalhaven LGA and New South Wales were $822 and $1237 respectively in 2011. The median weekly household incomes in Meroo Meadow ($1437) and Jaspers Brush ($1308) were higher than the NSW median weekly household income. In Bomaderry the median weekly household income ($812) was lower than the Shoalhaven LGA.

- **Rate of unemployment**: The unemployment rate in the study area (8.3 per cent) and Shoalhaven LGA (7.6 per cent) was higher than the unemployment rate in New South Wales (5.9 per cent) in 2011. The unemployment rate in the study area increased between 2006 and 2011, whereas the unemployment rate in the Shoalhaven LGA decreased over the same period.

- **Industry of employment**: In 2011, Bomaderry had a total workforce of 2,555 people, Jaspers Brush had a workforce of 181 people and Meroo Meadow had a workforce of 187 people. The largest industry of employment category in Bomaderry (15.2 per cent) and Jaspers Brush (16.0 per cent) was health care and social assistance. Agriculture, forestry and fishing (16.6 per cent) were the largest industry category of employment in Meroo Meadow. Overall, the largest industry of employment was health care and social assistance, employing 15.1 per cent of the total study area labour force.
- **Dwellings**: In 2011, the majority of occupied dwellings in the study area (72.6 per cent) and the Shoalhaven LGA (64.2 per cent) were separate houses. This was higher than the proportion of separate house occupied dwellings in NSW (62.8 per cent). Flat, unit or apartment was the second largest occupied dwelling type in the study area (9.7 per cent) and in NSW (17.0 per cent). In the Shoalhaven LGA, semi-detached, row or terrace house, or townhouse was the second largest occupied dwelling type (3.7 per cent).

- **Housing**: In the study area there was an average of 2.5 people per household in 2011. This was higher than the Shoalhaven LGA average (2.3 people per household), but lower than the NSW average (2.6 people per household). In the study area, there were 2933 households in 2011, with 66.9 per cent of these households being family households.

- **Housing tenure**: In 2011, 30 per cent of households were renting their dwelling in the study area. This was on par with NSW (30.1 per cent), but higher than the Shoalhaven LGA (25.0 per cent). In the study area, 38.8 per cent of households owned their dwelling outright, with an additional 28.3 per cent of dwellings owned with a mortgage.

- **Across all relative socio-economic advantage/disadvantage indexes the Shoalhaven LGA displays a lower level of advantage than the NSW average. The study area average is higher than both Shoalhaven LGA and NSW averages for all relative indexes. These results indicate that within the study area, there are a higher proportion of people with higher incomes, higher levels of employment and those in a skilled workforce, and living in larger households than in Shoalhaven and NSW as a whole.

In summary, the study area has a homogenous and ageing population. A higher median age and a higher proportion of the population aged 65 and older suggests a link to the retiree market. The ageing population is also reflected in the higher than average proportion of the population that requires assistance. The largest industry of employment, being health care and social assistance, suggests that the labour force is employed in industries that support the ageing population. Although the population is older and more vulnerable in terms of income and housing security when compared to the rest of the State, they are less vulnerable than the general Shoalhaven population. Although the population fell between 2006 and 2011, the population is expected to grow over the next 20 years, particularly in Nowra-Bomaderry.

### 3.2.2 Community character

The study area is predominately rural in character, consisting mainly of large lot agricultural holdings. The dairy industry has traditionally dominated agriculture, but more recently, wineries and equestrian activities have become increasingly prominent in the sector.

The historically active localities of Jaspers Brush and Meroo Meadow are today an agglomeration of rural residential allotments. The Meroo Union Church at Meroo Meadow is, however, still active and used for weddings, functions and ceremonies of worship.

Bomaderry is to the north of Nowra and is situated 13 kilometres south of Berry on the Princes Highway. It is separated from Nowra by the Shoalhaven River. While Bomaderry is located predominantly to the east of the Princes Highway, North Nowra is located to the west of the highway.

Bomaderry contains a mix of heavy industry, commercial and residential land uses. It has the highest population and dwelling density (8.3 persons and 3.55 dwellings per hectare) in Nowra-Bomaderry. Bomaderry is also the last stop on the passenger railway line from Sydney. The station is still the hub of the township with retail, commercial and industrial businesses predominantly located near the station.
Bomaderry’s community infrastructure consists of several educational facilities, places of worship, open space, a community centre, sporting and recreational facilities, and clubs. Sporting and recreational needs are well catered for in Bomaderry. Facilities include: Bomaderry Aquatic Centre; Bomaderry Sporting Grounds; Shoalhaven City Lanes and Leisure Centre; and Bomaderry Bowling Club. Bomaderry Creek Regional Park also provides walking tracks that are popular with locals and tourists. An inventory of community facilities in the study area is provided in Appendix C.

Community values

Consultation with the communities along the Princes Highway has occurred since the initial route selection and planning process for the whole series of Princes Highway upgrades between Gerringong and Bomaderry began in 2006. Consultation undertaken for the whole route between Gerringong and Bomaderry highlighted that the community values highly the visual amenity of the region and considers the pastoral surroundings an economic asset as they are both a draw for tourists as well as containing productive agricultural land. The community also values the lifestyle qualities associated with visual amenity, recreational facilities and open space, which also attract people to the region.

These community values are summarised in Table 3-1 (AECOM, 2008). The values apply to the whole route between Gerringong and Bomaderry but they are also relevant to the proposal.

Table 3-1 Community values highlighted during consultation

<table>
<thead>
<tr>
<th>Category</th>
<th>What the community value about living in the area</th>
</tr>
</thead>
</table>
| Functional | • Location – business and transport links to Sydney.  
              • Location – easy drive to and from Sydney, the coast and surrounding districts is a benefit to locals and tourism.  
              • Roads which are safe for cyclists, pedestrians and vehicles. |
| Environmental | • Climate and rainfall provides highly productive agricultural land.  
                        • Quiet, pristine rural and natural environment (flora and fauna).  
                        • Long agricultural history still alive in working farms.  
                        • Connection of European and Indigenous heritage with the environment. |
| Economic   | • Productive land of national significance.  
                        • Tourist destination, not just a thoroughfare.  
                        • Market, employment and business opportunities.  
                        • Potential for economic and population growth. |
| Social     | • Strength of enduring community spirit and networks of support and cohesion.  
                        • Family, generational, emotional and spiritual connection to the landscape, environment and the region.  
                        • Unique combination of hills and escarpment, rainforest, agricultural land and the coast contributing to visual amenity.  
                        • Lifestyle and associated emotional and health benefits – small, safe town and rural communities with access to facilities and services, and the countryside eg scenic vistas, cycling, slow roads. |
| Process    | Active community with strong social and interest group networks. |

3.2.3 Economic/business environment

The economy of the study area is based on rural as well as urban activities. These activities are detailed below.
Agricultural businesses

Agricultural land adjacent to the proposal is mainly used for dairy and beef production, viticulture, turf farming, agistment and forestry. Land used for dairy industry purposes is generally concentrated to the north and northeast of Bomaderry and is the largest economic contributor to the region. The dairy farms located at the northern end of the route near Berry generally supply the Berry Rural Cooperative, which trades under the name of the South Coast Dairy Cooperative. The dairy farms located in the mid to southern part of the corridor generally supply the Shoalhaven Dairy Cooperative.

The Department of Primary Industries classifies land based on its suitability for agricultural production. Land classification maps are produced by evaluating biophysical, social and economic factors that influence the use of land for agriculture. Most of the study area between Berry and Bomaderry is Class 3 land, which is land suitable for grazing or occasional cultivation.

There are two commercial vineyards between Berry and Bomaderry. Jasper Valley Wines is located off Croziers Road in Jaspers Brush and Silos Winery is located on the Princes Highway in Jaspers Brush. These wineries are also tourist attractions offering function centres, accommodation and restaurants in addition to wine tastings and wine for purchase.

A directly affected property is a landowner’s property that requires all or some part of it to be acquired or leased for roadwork. There are around 51 properties used for agricultural purposes along the proposal that are potentially directly affected by land acquisition or leasing. These properties include a turf farm, a vineyard, an organic farm, agistment land as well as land for beef production and dairy cattle farming.

Details of the potential property impacts as a result of leasing and acquisition to these properties for the purposes of construction and operation are presented respectively in Section 5.1.5 and Section 5.2.5.

Non-agricultural businesses

Businesses in Bomaderry are clustered near the roundabout at the intersection of the Princes Highway and Cambewarra Road in the far southern section of the study area. These businesses cater mainly for locals but some also serve visitors and through traffic. They include, but are not limited to, a restaurant, child care centre, motel, a caravan park, homes showroom, a charitable organisation, a smash repair workshop and a petrol station.

Between Berry and Bomaderry, most businesses are agricultural in nature other than the Woodbye Private Hotel, a bed and breakfast catering for tourists and passing traffic, located in Jaspers Brush on the Princes Highway.

Nowra-Bomaderry is recognised as the major regional centre and main employment centre for the Shoalhaven region. Bomaderry is host to a number of industries situated around the rail line, including a steel works, an ethanol refining and packaging plant, and a paper mill.

The ‘Sandtrack’, which is an alternative route to the current winding, hilly section of Princes Highway between Gerringong and Bomaderry (via Fern Street, Crooked River Road, Gerroa Road and Bolong Road), is not within the study area. Along the ‘Sandtrack’ between Berry and Bomaderry businesses are mainly tourism focused and include accommodation providers and three wineries.

Details of the potential impacts to these businesses are presented in Section 5.1.4 and Section 5.2.4.
3.2.4 Tourism

The study area is a popular tourist destination and is the most visited area in NSW, outside of the Sydney region. Tourism has historically been based around the beaches as a destination but the South Coast has become known for its coastal assets, national parks and forests, as well as historic villages and buildings.

The significance of tourism to the South Coast Region is reflected in the percentage of businesses that serve this sector; ie 24.2 per cent of all businesses compared to the national benchmark of 20.2 per cent at June 2009. Businesses that employ other workers as well as the owner comprise 54.8 per cent of all tourism businesses in the region, compared to the national benchmark of 39.7 per cent.

The number of visits to the NSW South Coast continues to increase. In the year ending 30 September 2011, international visitation to the area increased by 13 per cent, with expenditure in excess of $190 million by foreign visitors. Domestic overnight and day visitors to the area injected $617 million into the local economy, supporting 6000 jobs.

Nationally, the NSW South Coast ranks as the third most visited regional area behind the Gold Coast and Sunshine Coast in terms of domestic visitors and fourth most visited when international visitors are also considered.

In the year ending June 2011, the Shoalhaven LGA received 1.2 million domestic visitors and 421,700 visitor nights, an increase of 11 per cent over the previous year. By comparison, the South Coast Region (from Helensburgh to the Victorian border) recorded 2.9 million visitors, while NSW recorded 24.1 million visitors during this period.

The study area is within the Shoalhaven B Statistical Local Area which in June 2011 recorded the following:

- Eighteen accommodation establishments, offering 419 rooms and 1440 bed spaces and employing 233 persons.
- Room occupancy rates averaged at 50.6 per cent.
- There were 89,281 guest arrivals.
- Average length of stay was 1.7 days.
- Revenue from this form of accommodation was $12.4 million.

A desktop review and site visit identified 15 accommodation providers along the highway corridor between Berry and Bomaderry, of which four had direct access to the Princes Highway, and eleven accommodation providers along ‘The Sandtrack’.

3.2.5 Travel patterns

The Princes Highway is the main route for traffic between Sydney and the NSW South Coast and then on to Victoria. As well as being a major freight and tourist route, it serves commuters travelling to Sydney, Wollongong and Nowra and locals travelling between smaller towns. The importance of the route for tourists is confirmed by the highest traffic flows recorded in a holiday period, being around Easter (AECOM 2013).

The ‘Sandtrack’ between Gerringong and Bomaderry is used by light vehicle traffic to avoid delays behind slow moving heavy vehicles (which are prevented from using the ‘Sandtrack’ by a five tonne load limit). There is a 55 per cent / 45 per cent split of traffic using the Princes Highway / ‘Sandtrack’ (AECOM, 2013).

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5 Economic Importance of Tourism in Australia’s Regions Tourism Research Australia August 2011, p6
8 Shoalhaven B8 Statistical Local Area is the name of the statistical area within which this data was collected.
Travel in the local area is dominated by private car use. Dependence on the car is the result of limited public transport services. There are eight bus services in the area per weekday, including four school services. Rail mode share is low because Bomaderry is the last stop on the South Coast line to Wollongong and Berry, services are infrequent, travel to Sydney requires a change and the journey time is lengthy as a result (AECOM, 2013).

There are no formal cycle specific facilities along the existing highway or in Bomaderry. An alternative route between Berry and Bomaderry via Back Forest and Meroo is promoted by Shoalhaven City Council. There are limited opportunities for pedestrian trips around the study area due to the high speed environment of the existing highway, the lack of a footpath and the distance between settlements (AECOM, 2013).

### 3.2.6 Community facilities

As a centre for the Shoalhaven region, Nowra provides primary facilities and services such as hospitals, emergency services and utilities. Bomaderry has a number of smaller and secondary facilities and services that complement the services and facilities available in Nowra.

Along the proposed route, community facilities are mainly concentrated around the intersection of the Princes Highway and Cambewarra Road in the far southern part of the study area. The William Campbell Foundation, a charitable organisation that is licensed to accommodate and support children and young people in out-of-home care, is located next to the child care centre on the Princes Highway in Bomaderry.

On the corner of the Princes Highway and Boxsells Lane in Meroo Meadow is the Meroo Union Church, a non-denominational place of worship. It is one of two churches given to the community by David Berry in 1889.

An inventory of recreational facilities located within the study area, but away from the proposed route, is presented in Appendix C.
4 Consultation and key stakeholder issues

RMS has undertaken a comprehensive program of community consultation with potentially directly
affected property owners, residents adjacent to the highway, interest groups, government and private
agencies and the broader community since March 2006.

The consultation process has allowed the community to raise issues and themes that have been
considered in the design of the proposal. The community expressed values about living in the area,
which are set out in Table 3-1.

The economic and social issues that emerged during consultation on route options between
Gerringong and Bomaderry (RTA, 2008), and during subsequent community consultation undertaken
during the development of the concept design and preparation of the review of environmental factors
for the proposal (including community information sessions and interviews with property owners and
businesses) are summarised in Table 4-1. The third column in the table identifies where the issues
are addressed in this report or in other documents.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Detail</th>
<th>Report section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access arrangements</td>
<td>The proposal must ensure that access and connectivity are maintained to protect business viability. Access arrangements (particularly at the intersections at Strongs Road, Morschels Lane, Croziers Road and Pestells Lane) should have minimal impact on access to tourist attractions and should allow commercial operators and residents safe and easy access. Intersections should allow for larger vehicles, such as horse floats, milk trucks, buses and B-double trucks that currently operate locally in a commercial capacity.</td>
<td>5.1.3, 5.2.3 and 5.2.4</td>
</tr>
<tr>
<td>Agricultural land and farming activities</td>
<td>The proposal should minimise impacts to agricultural land and farming business including: land fragmentation; severance of high value agricultural land; and impacts to viability of long established dairy farms. Agricultural property accesses must accommodate delivery vehicles including milk, feed and cattle trucks. Prime crop, dairy and agricultural land needs to be preserved and recognised as a valuable resource. The upgrade should avoid exacerbating flooding on productive agricultural land.</td>
<td>5.1.5, 5.2.3 and 5.2.5</td>
</tr>
<tr>
<td>Business and the local economy</td>
<td>The proposal may make it more attractive for visitors to travel to a further destination resulting in reduced passing trade and job losses. Restrictions to access, such as right turn restrictions due to the addition of a central median, could reduce passing trade. Delays during construction and loss of visual amenity may impact the tourism industry.</td>
<td>5.1.4 and 5.2.4</td>
</tr>
<tr>
<td>Issue</td>
<td>Detail</td>
<td>Report section</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Impact on commercial</td>
<td>The proposal may impact the viability of the South Coast Dairy and Shoalhaven Dairy Co-operative. There may be an impact to individual dairy farms, reduced business from local residents and supply of agistment from local rural land.</td>
<td>5.2.4 and 5.2.5</td>
</tr>
<tr>
<td>Commercial operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact to properties</td>
<td>The proposal should minimise loss of property. Acquisition could lead to loss of revenue.</td>
<td>5.2.5 and 5.2.2</td>
</tr>
<tr>
<td>Social issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social amenity</td>
<td>The proposal should ensure minimal impact on property and residents and protect the rural environment for the enjoyment of current and future generations. The proposal should ensure the proposed northbound heavy vehicle inspection bay has minimal impact on nearby residents. The proposal should consider the impact on privacy and amenity to nearby properties, for example, residents living on the highway near Strongs Road from the proposed overpass.</td>
<td>5.1.1, 5.2.1 and 5.2.2</td>
</tr>
<tr>
<td>Heritage</td>
<td>The proposal should minimise impacts to heritage qualities.</td>
<td>5.2.2</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Uncertainty about impacts on property and livelihood is difficult, particularly for the elderly.</td>
<td>5.1.1</td>
</tr>
<tr>
<td>Impacts to property</td>
<td>Social costs associated with property loss include: loss of home; lifestyle; sense of belonging; fragmentation of land; and devalued property.</td>
<td>5.2.5</td>
</tr>
<tr>
<td>Impacts to community</td>
<td>The proposal needs to consider the community’s needs, including impacts on existing community facilities and amenities. The proposal needs to consider the safety of the community and commuters on the Princes Highway.</td>
<td>5.1.2, 5.2.2 and 5.2.3</td>
</tr>
</tbody>
</table>
5 Impact assessment

5.1 Construction impacts

5.1.1 Amenity impacts

Amenity refers to the quality of a place, its appearance, feel and sound, and the way its community experiences the place. Aesthetic qualities are an important part of amenity, but the broader concept of amenity is determined also by the physical design of a place and the human activity that takes place within it. A place that has ‘amenity’ is regarded as pleasant and attractive, as well as convenient and comfortable (Handy, 2002).

Amenity impacts include any factors that affect the ability of a resident, visitor or business owner to enjoy their home and daily activities, for example, noise, vibration, detrimental changes to views or changes to air quality. A proposal could improve amenity in some locations while reducing it in other locations. Residents or road users could experience construction fatigue during a lengthy construction phase.

Amenity impacts during construction of the proposal are discussed in detail in Section 6.2 (Noise and vibration), Section 6.6 (Landscape character and visual amenity) and Section 6.12 (Air quality) of the review of environmental factors for the proposal.

The bulk of construction activities would take place between 7am and 6pm, Monday to Friday and between 8am and 1pm Saturday, with no work on Sunday or public holidays. However, certain activities would be required to take place during the evening and night-time periods due to technical, safety and traffic management considerations. This could disturb the sleep of local residents.

During construction, around 27 residences would be highly affected by noise from earthworks and around 31 by noise from paving works. Elevated noise levels from construction could disturb residents in their day-to-day activities. However, the Noise and Vibration Impact Assessment (AECOM, 2013) assesses the worst 15 minute period and indicates that these activities would not be carried out continuously. Noise impacts from construction traffic are expected to be negligible.

Dust would be generated from excavation and stockpiles at temporary construction ancillary facilities during construction. An air quality assessment undertaken for the proposal indicated that the average level of dust would exceed minimum criteria at eight residences. It was determined that the actual impact was likely to be lower given the conservative assumptions made about the wind erosion occurring from all stockpile compounds simultaneously. Predictions at all other sensitive receptors remained well below the maximum incremental criteria. With the implementation of mitigation measures described in Section 6.12 (Air quality) of the review of environmental factors for the proposal, it is anticipated that dust and emissions are likely to be lower than those modelled.

The construction phase would also create visual impacts to road users and to residents of rural properties in the vicinity, not only from road works, but also from associated materials stockpiles and other temporary construction ancillary facilities adjacent to the corridor. Construction ancillary facilities would be temporary and the majority would not be used simultaneously across the construction period. As a result, these sites may be subject to rehabilitation and can return to rural or agricultural use.

Residents of the study area would experience the construction phases of the Gerringong upgrade and Foxground and Berry bypass project prior to experiencing the impacts described above. There is the potential for construction fatigue as a result. Residents in the Jaspers Brush area, close to the southern end of the Foxground and Berry bypass project, would experience the greatest levels of construction fatigue. Mitigation measures to address construction fatigue are included in Section 6.1.
In summary, the main amenity impacts during construction are expected to arise from noise and visual effects. Some residents may experience construction fatigue. These impacts would have the potential to affect the lifestyle of those affected and so mitigation measures designed to minimise and mitigate these impacts are proposed in Section 6.1.

5.1.2 Community cohesion and severance

There is no agreed definition of community or social cohesion, with most of the discussion around tangible concepts such as a sense of belonging, attachment to a group, willingness to participate in activities and to share in outcomes.

In a cohesive community, residents have a sense of belonging and feel a strong attachment to the community and their neighbours. The physical environment, including transport infrastructure, plays an important role in fostering or obstructing community cohesion by either creating borders that help to define the community, creating barriers that divide a community, or by creating gathering spots that foster community interaction. Streets within the community are important public spaces and can provide areas for residents to gather and interact. This is the traditional role for the main street in an urban setting. Bicycle and pedestrian facilities can also foster interaction. The degree to which transport infrastructure would serve as borders, barriers or gathering places would depend in part on how residents perceive and react to this infrastructure.

Community severance occurs when people are separated from the facilities, services and social networks they wish to use within their community. This can be due to modified travel patterns or psychological barriers created by transport infrastructure such as highways or bridges, and can manifest in outcomes such as trip delays, diversions and traffic noise. Severance also arises where there are changes in the comfort and attractiveness of areas.

Existing physical connections and linkages in the study area are instrumental in shaping current community cohesion. Existing paths of travel by vehicle, bicycle and foot are seen by the local community as critical to maintaining this current community cohesion, which also contributes to the community character of the area. Access to existing community infrastructure such as educational facilities, health services and places of worship is also seen as fundamental to creating and maintaining a sense of community cohesion and wellbeing. The ongoing impact of the proposal on community cohesion is discussed in detail in Section 5.2.2.

Construction of the proposal has the potential to impact on community cohesion by physically alienating sections of the community, even on a temporary basis. The locations where this may occur are limited to Meroo Meadow and the approach to Bomaderry. At the southern end of the route near Bomaderry, there is limited cross-highway community interaction due to restricted property access onto the highway by residences and business to the east. Community severance of properties along Lamonds Lane and the northern section of the highway at Meroo Meadow from the Meroo Union Church may be a potential impact during the construction phase. Community groups and worshipers who meet at the church at the corner of Boxsells Lane and Princes Highway may have their travel to and from this destination temporarily disrupted during the construction phase of the proposal.

Access to public transport may be temporarily disrupted during the construction phase of the project. The current bus stop at the corner of Princes Highway and Croziers Road, Jaspers Brush and the bus stop north of Mullers Lane along the Princes Highway would be relocated and incorporated into one bus stop at Mullers Lane. During the construction period, access to these bus stops and therefore public transport, may be limited and could potentially result in increased journey time for commuters.

Consultation with those people who may be affected by change has reduced uncertainty by providing them with relevant information and an opportunity to become aware of, suggest improvements to, and adjust to the changes. Elderly residents are particularly affected by uncertainty. The study area includes a higher than average proportion of elderly residents compared with the rest of NSW, so it is particularly important to mitigate this impact by providing early information, as described in the mitigation measures in Section 6.1.
5.1.3 Traffic and access arrangements

During construction, temporary changes to access to some properties may be required. The impact of these changes is not expected to differ from that described for the operational phase of the proposal.

The traffic and transport impact assessment prepared for the proposal describes in detail potential changes to conditions for road users as a result of the proposal construction. Although RMS is aiming to maintain an 80 kilometres per hour construction speed zone, construction activities would inevitably impact traffic efficiency (in order to maintain road and workplace safety) for both local and regional commuters due to a short term reduction in travel speeds through construction zones and potential delays caused by temporary road closures and / or detours. A detailed Traffic Management Plan (TMP) would be prepared as part of the Construction Environmental Management Plan (CEMP), as described in the Technical Paper: Traffic and Transport (AECOM, 2013) which is provided at Appendix C of the review of environmental factors for the proposal.

5.1.4 Business impacts

Potential negative business impacts include changes to the volume of traffic on the existing route and therefore passing trade, but these are balanced by the economic impacts of investment in the construction of the road, at a local, State and national level.

The proposal would be constructed in a way that would minimise impact to existing traffic arrangements. Access to businesses and therefore trade would not be expected to be directly affected during construction.

Construction of the proposal is estimated to cost approximately $281 million. The impact of this investment on the State and national economy has been assessed by estimating the direct (initial and first-round) and flow-on effects using economic multipliers derived from Input-Output tables and NSW State accounts published by the Australian Bureau of Statistics. Input – Output analysis has some limitations, the key one being that it assumes that that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts.

During the construction phase of the proposal it is estimated that the proposal would create $45.8 million of income to those directly involved with the construction of the proposal and in those businesses that directly supply the labour and materials for construction. The total number of full-time equivalent positions generated during the construction phase could be up to 330 and the increase in value added $75 million. Table 5-1 summarises the direct contribution of the proposal to the economy during the construction phase.

<table>
<thead>
<tr>
<th>Increase in household income ($million)</th>
<th>Increase in employment (FTE)</th>
<th>Increase in value added ($million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.8</td>
<td>330</td>
<td>75</td>
</tr>
</tbody>
</table>

The total effect on the economy is the sum of the direct effects and indirect effects of the proposal. Table 5-2 presents the total economic impact (direct and flow-on impacts) of the proposal during the construction phase. The table indicates that the total output impact of the proposal at the national level is estimated to be $624 million, of which $621 million occurs within NSW.
### Table 5-2 Total economic impact of construction using Type 1 multipliers ($2013)

<table>
<thead>
<tr>
<th>Region</th>
<th>Increase in industry output ($million)</th>
<th>Increase in household income ($million)</th>
<th>Increase in employment (FTE)</th>
<th>Increase in value added ($million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>620.8</td>
<td>122.0</td>
<td>1,491</td>
<td>203.1</td>
</tr>
<tr>
<td>Australia</td>
<td>624.2</td>
<td>134.8</td>
<td>1,546</td>
<td>234.6</td>
</tr>
</tbody>
</table>

At a local level, the flow on economic impact of the proposal would include construction worker expenditure over the construction period, which would benefit local services in the vicinity of the highway, such as cafes and takeaways in Nowra and Berry, service stations, trades and services suppliers and potentially some accommodation providers. The expenditure of construction workers would potentially have further flow on effects to other businesses in the area.

Potential delays during construction may encourage a small proportion of drivers to divert to the ‘Sandtrack’, but this is not expected to have a considerable impact on turnover as businesses in the area are not dependent on passing trade, with the possible exception of the service station. The service station may be impacted by altered access conditions for a short period during construction. The Gerringong upgrade and Foxground and Berry bypass projects are expected to attract greater volumes of diverted traffic and these would be in place prior to construction of the proposal. Potential visitors to the area may perceive that construction works would create an impact on amenity and their enjoyment of their stay, which may discourage them from visiting the area. This would impact local businesses in the tourism sector.

#### 5.1.5 Agriculture sector impacts

During the construction phase, agricultural business could potentially be impacted by the need to store materials or locate site offices adjacent to the highway corridor on land used for agricultural purposes.

Some temporary losses of productive agricultural land for these ancillary uses are anticipated as a result of the proposal. Some of the proposed temporary construction ancillary sites are currently owned by RMS, others are not and would need to be leased or acquired for the proposal.

Land acquired that lies outside of the operational highway corridor may be repackaged and sold on completion of the proposal. Therefore, once rehabilitated and if practical, there would be potential for the temporary construction ancillary sites to be returned to their previous use once construction of the proposal is complete.

#### 5.2 Operational impacts

##### 5.2.1 Amenity impacts

The proposal follows the existing route alignment but the increased scale of the project, which includes the increased footprint, the elevation and large new structures would increase amenity impacts for residents in proximity to the route. The design of the proposal minimises the visual impacts by the use of cuttings and setting bridges as low in the landscape as practicable, whilst still providing a highway free from flooding in events up to the 1 in 100 year flood event. This concept is illustrated by Figures 6.12 and 6.16 in the *Technical Paper: Urban Design, Landscape Character and Visual Amenity* (AECOM, 2013) which is provided at Appendix H of the review of environmental factors for the proposal.
Impact to air quality in the study area as a result of the proposal is expected to be negligible (refer to Section 6.12 (Air quality) of the review of environmental factors for the proposal for further detail).

There are around 57 residences or businesses that would be eligible for the consideration of noise mitigation where feasible and reasonable. The affected residences are located both in the rural areas along the proposal and in Bomaderry. Refer to the Technical Paper: Noise and Vibration (AECOM, 2013) for a detailed analysis of the impacts and locations. A childcare centre at Bomaderry would experience increased noise levels as would the Meroo Union Church. Mitigation measures to alleviate noise impacts are described in the Technical Paper: Noise and Vibration (AECOM, 2013) and Section 6 of this report.

Visual impacts to residents would result from the increased scale of the highway as a result of the proposal but also the removal of vegetation and the introduction of a heavy vehicle inspection bay at Jaspers Brush. The Technical Paper: Urban Design, Landscape Character and Visual Amenity (AECOM, 2013) identified that the proximity of residents to the proposal means that the overall visual impact would be moderate. Residents living close to the alignment may perceive impacts to their privacy if vegetative screening is removed and the road is physically closer than before. The assessment recommends mitigation measures to minimise the impact.

5.2.2 Community cohesion and severance

The proposal has the potential to impact community cohesion in both positive and negative ways. In a positive way, it has the ability to bring communities closer together through provision of safer access routes but in other locations it may interrupt access to facilities and the ability of individuals or groups to interact.

The proposal, which follows the existing highway alignment, has been designed to minimise impacts on the community identity of Jaspers Brush, Meroo Meadow and Bomaderry. Land acquisition is not expected to impact the sense of belonging in those communities.

None of the heritage buildings in the study area that may contribute to the identity of localities would be directly affected as a result of the proposal (Navin Officer Heritage Consultants, 2013). The Meroo Union Church is the last remaining public building in the Meroo locality and the maintenance of the church is funded by revenue from weddings and other events. The Friends of Meroo Union Church are concerned that the impact on views from the church would impact the number of bookings, the revenue and therefore the ability to maintain this heritage item. The alignment of the highway would be widened in this location but the distance to the carriageway from the Church would not alter greatly and the roadside pine trees would be retained, which would minimise the impact.

The proposal would impact the cultural landscape in the study area due to the size and scale of the proposal and its associated structures. However the design follows the existing alignment which has historical roots as the original access route through the area used since the nineteenth century. The historical route is reinforced as a result of the proposal (Navin Officer Heritage Consultants, 2013).

The proposal has the potential to cause severance during the operation phase if communities are permanently prevented from interacting across a physical or perceived barrier. The proposal follows the existing highway alignment but as the footprint is wider due to the increased number of lanes and the median separation, there is potential to increase severance in communities that are located on both sides of the highway. However, localities such as Jaspers Brush and Bomaderry presently have limited community interaction across the existing highway, which in either case is not expected to be adversely affected by the proposal. The negative impact of severance would be balanced by the positive impact of improved safety for residents and visitors to these locations.
The proposed relocation and incorporation of the bus stop at the corner of Princes Highway and Croziers Road, Jaspers Brush and the bus stop north of Mullers Lane along the Princes Highway, have the potential to impact members of the community wishing to travel south towards Bomaderry. The new incorporated bus stop is proposed to be located at Mullers Lane as part of the proposed bus stop / u-turn. The additional round trip for someone to walk from the original Croziers Road bus stop as a result of the proposal would be around one kilometre. The proposed relocation of these bus stops has the potential to impact community cohesion by physically alienating sections of the community, particularly elderly and less mobile members who are adversely affected by the increased walk time for bus commuters. The bus stop on Mullers Lane in a u-turn / bus stop has the potential to increase safety of bus commuters by relocating the bus stop off the highway and on to a quieter side road. Pedestrian safety would also be improved through the separation from general traffic via a 2.5 to three metre shoulder (The outer shoulder would be a minimum of 2.5 metres wide, increasing to three metres wide when a safety barrier is provided).

A property that requires all or some part of it to be acquired for roadwork is described as ‘potentially directly affected’ by the proposal. Such properties would be considered for partial or full acquisition by RMS, and discussions have commenced with affected owners. Where only a part of a property is required for the proposal, RMS would generally seek to acquire only that part needed for the proposal.

Wherever reasonably practicable, the proposal has been sited to avoid direct impact on dwellings. The road boundaries for the concept design would require demolition of one rural residential dwelling located on a hobby farm.

The majority of land that would be acquired is currently used for rural purposes, including general, residential and agriculture purposes. The effect on agricultural businesses is considered in Section 5.2.5 of this report.

Section 6.9 (Property and Land Use) of the review of environmental factors for the proposal describes the property impacts of land acquisition in more detail.

5.2.3 Traffic and access arrangements

Detailed changes to local access arrangements and traffic movements are described in the Technical Paper: Traffic and Transport (AECOM, 2013).

Access arrangements such as right-in / right-out restrictions, access routes and driveway alterations would impact about 32 properties along the route. Access would be maintained to residences and businesses although the arrangement of the access may change. There are around 16 properties in the study area that would experience physical modifications to property access as a result of the proposal. Consultation with business and property owners would continue to ensure that remodelled accesses would accommodate vehicles required to visit the property, for example milk trucks. Intersections and interchanges along the proposal would be designed to accommodate the heavy vehicles that service businesses in the area.

The introduction of a median would provide substantial improvements in road safety, including the elimination of traffic turning to and from minor roads across fast-moving two-way traffic. However, this would also mean that access to adjoining properties with frontage to the highway would be restricted to left-in / left-out movements, adding travel time to trips to and from affected properties of up to four minutes. The proposal would reduce travel times by approximately one minute for trips between Berry and Bomaderry which would offset some of the additional travel time from changes to access. The cumulative travel time saving for users of the entire Gerringong to Bomaderry route following the Gerringong upgrade and Foxground and Berry bypass projects and this proposal is approximately 10 minutes.
Drivers affected by right turn restrictions would be required to utilise one of five u-turn facilities, the grade separated facilities at Morschels and Devitts lanes or Jaspers Brush Road and Strongs Road or the grade separated half-interchange at Pestells Lane. At Croziers Road, a right turn facility and u-turn bay would be available for southbound traffic but traffic leaving Croziers Lane and wishing to travel south would first need to travel north to Mullers Lane and use the u-turn facility. Emergency vehicles would be able to use both the u-turn movements and grade separated facilities and grade separated half-interchange in addition to dedicated emergency cross over facilities across the highway at three locations.

An upgraded intersection including a u-turn facility at Silos Winery at Jaspers Brush would permit left-in / left-out movements and a right turn lane for southbound traffic. The upgraded intersection would greatly improve safety for the employees, visitors and delivery vehicles that access the winery as well as other users of the highway. In addition, the upgraded opposing right turn bays at Boxsells Lane would permit southbound traffic to enter Boxsells Lane and access the Meroo Meadow Union Church. The intersection would improve safety for residents and those who access the church facilities on Boxsells Lane.

Reduced travel times on the route would also benefit bus users (not including the additional travel time to bus stops) and those travelling to rail stations. School bus safety will be improved by limiting stops to certain locations, although this could cause some inconvenience to existing users. Cycle safety would also be improved through the separation from general traffic via a 2.5 to three metre shoulder (The outer shoulder would be a minimum of 2.5 metres wide, increasing to three metres wide when a safety barrier is provided). Pedestrian and cycle safety on the Sandtrack would also improve as a result of reduced traffic volumes once traffic diverts to the proposal.

5.2.4 Business impacts

In terms of the regional economic effects, improved connectivity to the NSW South Coast would enhance business opportunities in the area and support the existing tourism industry in the area including in Jervis Bay, Ulladulla and Batemans Bay. Industries in the Nowra area would benefit from improved accessibility to markets and raw materials in the Sydney and Wollongong areas due to reduced travel times and increased road safety.

When people make decisions about whether or not to work, where to work and how much to work, they take into account not only the wages on offer, but also lifestyle costs associated with each option such as time forsaken, commuting costs and stress. High commuting costs can lead workers to work less or in less productive and lower paid jobs than they otherwise would.

A positive impact of reducing travel time and costs along the Princes Highway may lead people to enter the labour market or move to more productive jobs as a result. Conversely, an upgraded route has the potential to encourage visitors to travel further and bypass business in the study area.

Non-agricultural local businesses such as the motels and caravan parks are not expected to be reliant on passing trade. Businesses, such as the service station, that are reliant on passing trade and that would experience changes in access to permit left-in / left-out movements only are not expected to experience changes to levels of passing trade, turnover and employment, as customers can use u-turn facilities provided at frequent intervals along the route and grade separated facilities and half-interchange to reach the businesses. The wineries and accommodation providers located along the ‘Sandtrack’ are also not reliant on passing traffic for visitors. A reduction in trade would not be expected at Sandtrack businesses. The two service stations located along the ‘Sandtrack’ are situated within the town of Bomaderry and are not perceived as directly reliant on passing trade and would most likely attract trade from within the town and from the industrial businesses nearby.
5.2.5 Agriculture sector impacts

Where the proposal requires acquisition of agricultural land, it has the potential to impact on the economic productivity and viability of agricultural businesses. Specifically, the productivity of agricultural businesses could be affected by:

- Loss of productive land.
- Changes to the size and shape of paddocks.
- Changes to farming conditions as a result of the road development affecting flooding behaviour and water supply.
- Changes to external access (considered in Section 5.2.3)

To determine the impact of the proposal on the viability of agricultural businesses each potentially directly affected lot has been considered individually to determine:

- The land acquired as a percentage of the total lot and residual area.
- The capability of the land affected in relation to the quality of other land on the property.
- Changes to external and internal access.
- Any impact on dams, outbuildings and other infrastructure/facilities, necessary for a farm to operate.
- The impact of the above on business profits/productivity.
- The impact of the above on business viability.

There are 50 agricultural properties which would be affected by land acquisition. The majority would be affected by strip or corner acquisition only, which is unlikely to affect productivity or viability. None of the agricultural properties would be affected by fragmentation, or severance of high quality land. No changes to stock underpasses or to access between different parts of properties are expected.

There are three agricultural properties that would experience more substantial land acquisition at the Pestells Lane half-interchange, however the acquisition would not result in severance or fragmentation of the properties. One of the properties is used for horse breeding, another for dairy farming and the third may be used for horticulture in the future but currently has no commercial use. Land acquisition at the latter two properties is not expected to affect the viability or profitability of current or future operations or the dairy cooperatives or the dairy industry as a whole. The owners of the horse stud have raised concerns that land acquisition, proximity of the highway and changes to drainage patterns may affect the viability of the business and the safety of the employees and horses when riding on the property. These issues would be further investigated during the detailed design phase of the proposal. Proposed mitigation measures are presented in Section 6.2 of this report.

The proposal would directly impact a residence located on a hobby farm property at Jaspers Brush. The impact on the current dwelling is to such an extent that the dwelling would need to be demolished. RMS has had initial discussions with the affected property owners, and subject to project determination, it is expected that the whole of this property would be acquired.

Property owners have highlighted concerns relating to changes to drainage and flooding patterns which could affect the ability to use certain paddocks. Flooding impacts and mitigation measures are described in the Technical Paper: Surface Water, Groundwater and Flooding (AECOM, 2013d) provided at Appendix G of the review of environmental factors for the proposal.
Four businesses may be impacted by a change to the catchment of farm dams and therefore the water levels that can be stored for irrigation and to water livestock. Surface water runoff that would have previously flowed to the farm dams may be diverted around road cuttings or embankments. Catchment areas for these dams are thus altered, resulting in water levels in these dams that would be lower or higher than if the proposal did not proceed. Mitigation measures are described in the *Technical Paper: Surface Water, Groundwater and Flooding* (AECOM, 2013d) and in Section 6 of this report.

An objective for managing flood impacts is to confine flooding to land used for pasture, so some businesses may be affected during a 1 in 100 year flood event. Figures 2.6, 2.12 and 2.16 within the *Technical Paper: Surface Water, Groundwater and Flooding* (AECOM, 2013d) illustrate the change in flooding impact. Some agricultural properties would be less affected by major floods as a result of the proposal, for example a turf farm. There are others that would be affected by minor changes to the size of the flooded area or an increase in the depth of the water and therefore the time taken for the floodwater to dissipate, including a turf farm, a dairy farm, a property used for cattle grazing, turf farming and silage and two properties used for grazing. However, it is noted that the impacts would relate to a 1 in 100 year flood event, not a regular occurrence. Mitigation measures are described in the *Technical Paper: Surface Water, Groundwater and Flooding* (AECOM, 2013d) and in Section 6 of this report.

Consultation with agricultural business owners would continue throughout the detailed design and construction phases of the proposal with the aim of minimising impacts on the viability of the farms where feasible and reasonable.

5.3 Summary of key findings

5.3.1 Construction impacts

The main amenity impacts are expected to arise from noise and visual effects.

The proposal may limit community interaction on a temporary basis due to increased travel time resulting from temporary access restrictions during construction and temporary disruptions to public transport.

Construction activities would be likely to impact traffic efficiency for both local and regional commuters, by reducing travel speeds and through temporary road closures. Temporary access may be required to some properties.

During construction of the proposal, existing businesses along the route would be able to continue operating.

The proposal is estimated to create up to 330 full time equivalent jobs. Local benefits are expected to flow from construction worker expenditure to businesses in the vicinity of the upgrade. Potential delays during construction are not expected to impact turnover as businesses along the route are largely not reliant on passing trade.

Some productive agricultural land may be temporarily lost during construction, for example, where storage of materials is required.

5.3.2 Operational impacts

The impact to air quality is expected to be negligible.

There are around 57 residences or businesses that would be eligible for the consideration of noise mitigation where feasible and reasonable.

Visual impacts would result through the increased scale of the proposal, removal of vegetation and introduction of a heavy vehicle inspection bay at Jaspers Brush.
The proposal is expected to improve community cohesion by creating safer access routes. By following the existing route alignment, the proposal is expected to minimise impacts on community identity of places such as Jaspers Brush, Meroo Meadow and Bomaderry. A number of properties located within the road corridor have been identified as potentially directly affected by the proposal and would be considered for partial or full acquisition by RMS.

The proposal may potentially impact bus commuters with the relocation and co-location of a bus stop at Mullers Lane. The additional round trip walk for these commuters is one kilometre. However, the relocation of the bus stop would provide increased safety for commuters with location of the new bus stop off the highway in the u-turn bay / bus stop on Mullers Lane.

The proposal would reduce travel times between Berry and Bomaderry. Introduction of a median and grade separated facilities and half-interchange would improve road safety along the route, but at the same time would increase travel times for property owners restricted to making left-in / left-out movements to and from their properties. Upgraded access arrangements at Silos Winery at Jaspers Brush and at the intersection of Lamonds Lane and Boxsells Lane would improve safety in these vicinities for various users of these sites. Cycle safety would improve through creation of a 2.5 to three metre wide shoulder.

Improved connectivity to the NSW South Coast would potentially enhance business opportunities and support existing tourism in the area and immediate environs. Reduced travel times may encourage greater workforce participation.

The productivity and viability of agricultural properties could be affected by loss of productive land, changes to lot configurations and access. Of the 50 agricultural properties likely to be affected, three would be subject to more extensive land acquisition. This is not expected to affect the viability of two of the properties, while the third (a horse stud) has raised concerns about its ongoing viability. This would be further investigated during the detailed design phase of the proposal. Proposed mitigation measures are presented in Section 6.2.
6 Mitigation and management strategies

6.1 Mitigation and mitigation measures for construction

Management and mitigation measures to address construction impacts are summarised in Table 6-1.

<table>
<thead>
<tr>
<th>Management and mitigation measures</th>
<th>Amenity impacts</th>
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</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
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<tr>
<td>• Through implementation of a Community Involvement Plan, provide timely, regular and transparent information about changes to access and traffic conditions, details of future work programs and general construction progress throughout the construction phase of the proposal. Provide information in a variety of ways including letter box drops, media releases, an internet site and variable message signs. Set up a 24 hour hotline and complaints management process.</td>
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<tr>
<td><strong>Noise and vibration:</strong></td>
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<tr>
<td>• Implement a Construction, Noise and Vibration Management Plan (CNVMP). The CNVMP would detail the “best practice” construction methods to be used, presenting a feasible and reasonable approach. The CNVMP would also detail the community engagement activities that are planned, including prior notification of nearby affected property owners for particularly noisy activities including ancillary facility sites, as described in the Technical paper: Noise and Vibration (AECOM, 2013).</td>
<td></td>
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<tr>
<td><strong>Air quality:</strong></td>
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<tr>
<td>• Include measures in the CEMP to manage air quality during construction and include mitigation for ancillary facility sites.</td>
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<tr>
<td><strong>Visual:</strong></td>
<td></td>
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<tr>
<td>• Reduce vegetation clearance where feasible and reasonable and progressively revegetate and landscape cleared areas as works are completed, including at ancillary facility sites.</td>
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<tr>
<td><strong>Construction fatigue:</strong></td>
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<tr>
<td>• Include measures in the CNVMP such as respite periods from particularly noisy activities, as described in the Technical paper: Noise and Vibration (AECOM, 2013).</td>
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</tbody>
</table>

**Community cohesion and severance**

Continue consultation with the Friends of Meroo Union Church throughout the detailed design and construction phases of the proposal to develop and implement measures to minimise and mitigate amenity impacts on the church arising during construction.

Continue consultation with bus commuters at Croziers Road and Muller Lane bus stops throughout the detailed design and construction phases of the proposal to develop and implement measures to minimise impacts on access to public transport facilities during construction.

**Traffic and access arrangements**

Advise residents, businesses and road users in a timely manner before any changes to road access arrangements.

Where required to maintain uninterrupted access to properties, provide temporary or alternative access in consultation with the affected property owner(s).

Prepare Traffic Control Plans to address peak tourist/holiday traffic such as Friday and Sunday afternoons and days immediately prior and following public holidays.
## Management and mitigation measures

Prepare and implement a Traffic Management Plan addressing:

- Construction methods and staging designed to minimise road closures.
- Construction speed zones for highway traffic.
- Continuous access to local roads and properties.

### Agricultural sector impacts


Continue consultation with all affected property owners and agricultural business operators during detailed design and construction phases of the proposal to develop and implement measures to minimise and mitigate impacts on land use, viability, farm operations and infrastructure.

Continue consultation with the owner of the residence to be demolished during the acquisition phase in accordance with RMS’ ‘Land Acquisition Information Guide’.

During detailed design and construction of the proposal, carry out consultation with all property owners of dam catchments which would change as a result of proposal related dam alterations.

Develop and implement measures to minimise hydrology impacts.

Maintain both internal and external property access for agricultural businesses for the duration of construction. Should temporary or alternative access be required this would be agreed and provided in consultation with the affected property owner(s).

In instances where agricultural land that has been acquired or leased for use as a temporary ancillary facility site during construction and is not required for the proposal following the completion of construction, the lane is to be rehabilitated as appropriate for return to its previous use or for sale.
6.2 Mitigation and management measures for operation

Management and mitigation measures to address operational impacts are summarised in **Table 6-2**

**Table 6-2 Management and mitigation measures for operation**

<table>
<thead>
<tr>
<th>Management and mitigation measure</th>
<th>Amenity impacts</th>
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</thead>
<tbody>
<tr>
<td><strong>Amenity impacts</strong></td>
<td></td>
</tr>
<tr>
<td>Develop and implement the urban design and landscape plan, which includes consideration of planting to provide vegetative screening between residences and businesses and the proposal. Refer to the Technical Paper: Urban Design, Landscape Character and Visual Amenity (AECOM 2013c) for more details. This would occur in the pre-construction phase of the proposal. Where feasible and reasonable, offer architectural noise treatments to around 42 residences and one child care centre that are eligible for consideration of architectural treatment. The details of the architectural treatment would be decided in consultation with the owners during the detailed design phase of the proposal.</td>
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<table>
<thead>
<tr>
<th>Community cohesion and severance</th>
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<tbody>
<tr>
<td><strong>Community cohesion and severance</strong></td>
<td>Continue to consult with residents, the community and stakeholders regarding the design of altered access arrangements. Carry out property acquisition in accordance with RMS ‘Land Acquisition Information Guide’ (RMS, 2012) and the Land Acquisition (Just Terms Compensation) Act 1991.</td>
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<thead>
<tr>
<th>Traffic and access arrangements</th>
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</thead>
<tbody>
<tr>
<td><strong>Traffic and access arrangements</strong></td>
<td>Continue consultation with affected property owners during the detailed design process to ensure functional and safe access is provided to properties.</td>
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</table>

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<thead>
<tr>
<th>Business impacts</th>
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</thead>
<tbody>
<tr>
<td><strong>Business impacts</strong></td>
<td>Provide signposting to encourage highway traffic to visit tourist destinations, consistent with RMS signposting guidelines. Provide sign posting to indicate routes via u-turns to businesses on the other side of the carriageway.</td>
</tr>
</tbody>
</table>
7 Conclusion

The report has identified and assessed the potential socio-economic impacts associated with the proposal. The report has had regard to the existing context of the proposal, ongoing community consultation and adoption of appropriate mitigation measures.

The proposal has aimed to minimise potential impacts and limit property acquisition where reasonably practicable. RMS would compensate owners for land acquisition in accordance with RMS ‘Land Acquisition Information Guide’ (RMS, 2012) and under the terms of the Land Acquisition (Just Terms Compensation) Act 1991.

The construction phase of the proposal is expected to inject about $234.6 million into the national economy and create the equivalent of 1546 full time jobs through direct and indirect impacts. This includes the local benefits that are expected to flow to businesses through construction worker expenditure.

The proposal is expected to have negligible impact on air quality along the route. Visual impacts are expected to result from the increased road footprint, large cutting at Strongs and Jaspers Brush roads, introduction of grade separated facilities, removal of vegetation and the introduction of a heavy vehicle inspection bay at Jaspers Brush. There are around 57 residences or businesses that are eligible for the consideration of noise mitigation where feasible and reasonable. The consideration of 43 architectural property treatments is proposed to mitigate the impacts of the proposal. Low noise pavement has been included in the concept design for the proposal.

The proposal would improve community cohesion by providing safer access routes. Access to community facilities would largely remain unaffected, except for access to bus stops along the route, but the trade-off is improved safety in accessing other destinations along the route.

Physical modifications would be made to about 16 property accesses along the route and ongoing consultation with owners would continue to ensure that essential movements on and off sites can continue. Introduction of a median would improve road safety, but would also reduce access and increase travel times for properties which are currently able to make right-in / right-out turns. Pedestrian and cycle safety on the ‘Sandtrack’ would also improve as a result of traffic diverting to the proposal.

Improved connectivity to the NSW South Coast, Wollongong and Sydney, is expected to benefit the tourism industry in the study area and support local businesses through reduced travel times. This may, in turn, encourage greater workforce participation in the study area. Businesses along the route are not expected to suffer adverse impacts as a result of the operation of the proposal, as customers and patrons would still be able to reach these businesses via u-turns, grade separate facilities and grade separated half-interchange.

Of the 50 agricultural properties likely to be affected by the proposal, three would be subject to more extensive land acquisition, and two of these are expected to remain viable. The viability of the third property, a horse stud, would be further investigated during the detailed design phase of the proposal.

Where necessary, mitigation measures are recommended to address negative impacts of the upgrade, as detailed in Section 6 of this report.

Overall, the social and economic benefit of the proposal is expected to outweigh any negative impacts that cannot be satisfactorily mitigated.
8 References


AECOM (2013a) *Technical Paper: Noise and Vibration*

AECOM (2013b) *Technical Paper: Traffic and Transport*


AECOM (2013d) *Technical Paper: Surface Water, Groundwater and Flooding*

Australian Bureau of Statistics (2012) *Census of Population and Housing*


Handy, S (2002). *Amenity and Severance*


Navin Officer Heritage Consultants (2013) *Technical Paper: Non-Aboriginal (Historic) Heritage*

NSW Department of Planning (2007) *South Coast Regional Strategy*

NSW Department of Planning and Infrastructure (2010). *Projected population by sex, SLAs in NSW, 2006-2036*


NSW Government (2012) *Long Term Transport Master Plan*

NSW Government (2011) *NSW 2021 Plan*

NSW Roads and Maritime Services (2013) *Socio-economic Practice Note.*


Shoalhaven City Council (2011) *Shoalhaven Local Environmental Plan 1985*

Shoalhaven City Council (2010) *Shoalhaven Community Strategic Plan 2020*

Shoalhaven City Council (2005) *Shoalhaven Economic Development Strategy (An Enterprising Alternative)*


Appendix A  Policy and planning context

The socio-economic impact of the proposal on the study area has been assessed within the existing social policy framework. A number of relevant local and State government policies and plans exist for the study area.

NSW 2021: A Plan to Make NSW Number One

The NSW 2021: A Plan to Make NSW Number One (NSW Government, 2011) is a 10-year plan to guide the NSW Government’s policy and budget decision making and, in conjunction with the NSW Budget, to deliver on community priorities. The plan will drive the agenda for change in NSW to:

- Restore economic growth.
- Return quality health, transport, education, police, justice and community services, putting customer service at the heart of service design.
- Build infrastructure that drives our economy and improves people’s lives.
- Strengthen our local environments, devolve decision making and return planning powers to the community.
- Restore accountability and transparency to government, and give the community a say in decisions affecting their lives.

The plan establishes a set of 32 goals. The goals that are supported by the Berry to Bomaderry Upgrade proposal are:

- Goal 3 – Drive economic growth in regional NSW.
- Goal 7 – Reduce travel times.
- Goal 10 – Improve road safety.
- Goal 19 – Invest in critical infrastructure.

NSW Long Term Transport Master Plan

The NSW Long Term Transport Master Plan (NSW Government, 2012) provides a framework for addressing the NSW transport challenges for the next 20 years. The Master Plan will be the guiding transport planning and policy document to support the goals in NSW 2021. The Master Plan will also guide the prioritisation of available funds for Transport to deliver maximum benefits to NSW.

The Master Plan integrates transport with wider economic, infrastructure, social, housing and land use planning including the Metropolitan Strategy for Sydney, and the State Infrastructure Strategy to ensure NSW has a coherent overall approach. The Master Plan will also inform future detailed plans, such as modal plans and specific Regional Transport Plans.

The Master Plan identifies solutions and actions that integrate, modernise, grow and manage the transport system in the short term, medium term and longer term, such as:

- Integrating modes to meet customer needs.
- Getting Sydney moving again.
- Sustaining growth in Greater Sydney.
- Providing essential access for Regional NSW.
- Supporting efficient and productive freight.
Actions within the Master Plan include the upgrade of the Princes Highway between Gerringong and Bomaderry. The Master Plan states that this will provide enhanced freight connectivity to Port Kembla, along with increased capacity, improved traffic flow, reduced travel time and improved road safety for all users.

South Coast Regional Strategy 2006-2031

The South Coast Regional Strategy ([NSW Department of Planning, 2007]) applies to the Shoalhaven, Eurobodalla and Bega Valley LGAs. The purpose of the Regional Strategy is to “ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment needs of the region’s population over the next 25 years”.

The South Coast Regional Strategy incorporates the specific regional infrastructure requirements identified in the State Infrastructure Strategy 2006-07 to 2015-16. The strategy represents an agreed NSW Government position of the future of the South Coast.

The strategy identifies the South Coast’s economic and population and housing strategies. Those relevant to the study area are to:

- Provide the right type of housing in the right place at the right time.
- Increase the proportion of young families within the Region and reduce youth out-migration by providing vibrant town centres with increased job, education and training opportunities.
- Prioritise and manage the release of vacant urban lands to maximise development in-and-around well serviced centres and minimise development in sensitive locations.
- Enable new urban lands to be identified that can deliver sustainable development outcomes where local housing demand is demonstrated.
- Provide housing choice and affordability in appropriate locations, reflecting changing demographics and associated reduction in household size.
- Ensure quality urban design and amenity that is sensitive to and complements the character and lifestyle of the Region’s towns.
- Provide framework for the planning of new and upgraded regional infrastructure and facilities for the growing population and ageing demographic.
- Ensure sufficient employment lands are available in appropriate locations to accommodate growth in existing and emerging industries and businesses.
- Support and strengthen the existing employment base in primary industries and defence sectors and supporting industries.
- Encourage and investigate opportunities to diversify into community and human services, education and aged care industries.
- Support and strengthen tourism opportunities by identifying key tourism sites and precincts, and targeting the focus areas identified in the South Coast Regional Tourism Plan.
Shoalhaven Economic Development Strategy

The *Shoalhaven Economic Development Strategy (An Enterprising Alternative)* ([Shoalhaven City Council, 2005](#)) was developed by Shoalhaven City Council in collaboration with the NSW Department of State and Regional Development, the Commonwealth Department of Transport and Regional Services, and the Shoalhaven Area Consultative Committee. Shoalhaven Economic Development Strategy has been developed to guide future economic growth in the region that is “strategic, specific and sustainable”.

The primary needs for economic development in the Shoalhaven have been identified in this report as the need to create a significant regional centre in Nowra-Bomaderry (and to a lesser degree Ulladulla) that has a critical mass capable of:

- Attracting and retaining a greater range of services (i.e. health, business, transport, recreational and culturally related) through increased demand.
- Attracting a greater level of investment with respect to economic and social infrastructure.
- Reducing economic leakage by reducing the community’s need to have to source goods and services outside of Shoalhaven.
- Need to develop improved liveability within the Shoalhaven and ensure that the Shoalhaven provides a level of amenity and community that offers an attractive alternative to Sydney, Canberra and Wollongong. This improvement needs to target a range of areas including:
  - Improved access to services.
  - General amenity.
  - Diversity of housing options.
  - Meaningful cultural/recreational opportunities.
- Need to ensure that the growth commensurate with the development of a key regional centre does not negatively impact upon the Shoalhaven’s attractive character and lifestyle opportunities and assets. In fact clever leverage of the environmental assets should be further investigated.
- Need to continue to foster Shoalhaven’s economic competitive capability, including:
  - Fostering an appropriate diversity of primary, secondary and tertiary industry related businesses.
  - Improved physical access to major markets — Sydney, Canberra and Wollongong.
  - Quality of infrastructure – particularly with respect to employment lands and information technology and communication connectivity.
  - Diverse and capable workforce.

Nowra-Bomaderry Structure Plan

The purpose of the *Nowra-Bomaderry Structure Plan* ([Shoalhaven City Council, 2005](#)) is to provide a framework for the integrated development of the Nowra-Bomaderry area that looks at the implications of the ongoing growth of the urban area and the long term role of Nowra-Bomaderry as the regional service provider.
The Nowra-Bomaderry Structure Plan has three key goals:

- **Sustainable living** – manage development and change to accommodate economic and population growth, in a manner which endorses community values, conserves natural resources and safeguards ecological systems.
- **Economic vitality** – facilitate the diversification and expansion of Nowra-Bomaderry’s economy by building on the town’s human resources, skills base and environmental quality of the Shoalhaven whilst strengthening regional linkages, providing efficient support networks, fostering innovation and rewarding enterprise.
- **Community wellbeing** – provide living areas in Nowra-Bomaderry, which maximise lifestyle quality and choice by engendering a healthy, caring and harmonious society where both individuals and collective rights are respected and there is fair and reasonable access to facilities and services.

The key issues addressed in the Structure Plan are:

- Sustainable population.
- Natural environmental values and biodiversity.
- Residential development.
- Employment centre role.
- Sustainable transport system.
- Urban infrastructure provision.

**Shoalhaven Community Strategic Plan 2020**

The *Shoalhaven Community Strategic Plan 2020* (Shoalhaven City Council, 2010) states the council’s mission is to “enhance Shoalhaven’s strong communities, natural, rural and built environments and appropriate economic activities through strategic leadership, good management, community engagement and innovative use of resources”.

The Shoalhaven Community Strategic Plan 2020 states Shoalhaven’s community objectives as follows:

- A city of diverse, united and connected communities.
- A creative, vibrant, generous and learning community.
- A community that feels safe.
- A healthy and active community.
- Major town centres that are attractive, vibrant and popular destinations.
- Sustainable water supply and sewerage services providing responsible community returns.

The Shoalhaven Community Strategic Plan 2020 lists Shoalhaven’s economic objectives as follows:

- An economy that is based on Shoalhaven’s distinct characteristics, advantages and natural qualities.
- An economy that supports and is supported by a growing, diverse and changing community.
- Effective promotion of Shoalhaven’s investment, business and job opportunities, lifestyle attractions and vision.
## Appendix B Socio-economic profile

### Key Demographic characteristics of the study area: 2006 and 2011

<table>
<thead>
<tr>
<th>Key demographic characteristic</th>
<th>Study area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age*</td>
<td>42-47</td>
<td>43-49</td>
<td>44</td>
<td>46</td>
<td>37</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td>6960</td>
<td>6917</td>
<td>88,405</td>
<td>92,812</td>
<td>6,549,178</td>
<td>6,917,658</td>
<td></td>
</tr>
<tr>
<td>Population aged 15+</td>
<td>5656</td>
<td>5722</td>
<td>71,372</td>
<td>76,409</td>
<td>5,250,261</td>
<td>5,585,148</td>
<td></td>
</tr>
<tr>
<td>% aged 15+</td>
<td>81.3%</td>
<td>82.7%</td>
<td>80.7%</td>
<td>82.3%</td>
<td>80.2%</td>
<td>80.7%</td>
<td></td>
</tr>
<tr>
<td>Population aged 65+</td>
<td>1360</td>
<td>1467</td>
<td>18,696</td>
<td>21,610</td>
<td>905,775</td>
<td>1,018,179</td>
<td></td>
</tr>
<tr>
<td>% aged 65+</td>
<td>19.5%</td>
<td>21.2%</td>
<td>21.1%</td>
<td>23.3%</td>
<td>13.8%</td>
<td>14.7%</td>
<td></td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>7.8%</td>
<td>8.3%</td>
<td>9.2%</td>
<td>7.6%</td>
<td>5.9%</td>
<td>5.9%</td>
<td></td>
</tr>
<tr>
<td>Indigenous population</td>
<td>379</td>
<td>471</td>
<td>3311</td>
<td>4318</td>
<td>138,506</td>
<td>172,620</td>
<td></td>
</tr>
<tr>
<td>% Indigenous</td>
<td>5.4%</td>
<td>6.8%</td>
<td>3.7%</td>
<td>4.7%</td>
<td>2.1%</td>
<td>2.5%</td>
<td></td>
</tr>
<tr>
<td>Speaks a language other than English at home</td>
<td>189</td>
<td>202</td>
<td>2962</td>
<td>3170</td>
<td>1,314,556</td>
<td>1,554,331</td>
<td></td>
</tr>
<tr>
<td>% ESL</td>
<td>2.7%</td>
<td>2.9%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>20.1%</td>
<td>22.5%</td>
<td></td>
</tr>
</tbody>
</table>

Note: * Median ranges only available for study area

### Population projections

<table>
<thead>
<tr>
<th>Year</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>92,400</td>
<td>6,816,100</td>
</tr>
<tr>
<td>2011</td>
<td>98,500</td>
<td>7,187,000</td>
</tr>
<tr>
<td>2016</td>
<td>105,200</td>
<td>7,559,600</td>
</tr>
<tr>
<td>2021</td>
<td>111,700</td>
<td>7,939,800</td>
</tr>
<tr>
<td>2026</td>
<td>117,800</td>
<td>8,322,800</td>
</tr>
<tr>
<td>2031</td>
<td>123,700</td>
<td>8,700,500</td>
</tr>
<tr>
<td>2036</td>
<td>129,000</td>
<td>9,066,100</td>
</tr>
</tbody>
</table>

Source: New South Wales State and regional population projections, 2006 – 2036, NSW Department of Planning and Infrastructure
## Labour force characteristics 2011

<table>
<thead>
<tr>
<th>Labour force statistics</th>
<th>Study area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total labour force</td>
<td>3180</td>
<td>36,646</td>
<td>3,334,857</td>
</tr>
<tr>
<td>Employed full-time</td>
<td>1656</td>
<td>18,831</td>
<td>2,007,925</td>
</tr>
<tr>
<td>%</td>
<td>52.1%</td>
<td>51.4%</td>
<td>60.2%</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>1048</td>
<td>12,639</td>
<td>939,464</td>
</tr>
<tr>
<td>%</td>
<td>33.0%</td>
<td>34.5%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Employed away from work</td>
<td>150</td>
<td>1593</td>
<td>120,121</td>
</tr>
<tr>
<td>%</td>
<td>4.7%</td>
<td>4.3%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Employed hours not stated</td>
<td>61</td>
<td>783</td>
<td>70,821</td>
</tr>
<tr>
<td>%</td>
<td>1.9%</td>
<td>2.1%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>265</td>
<td>2800</td>
<td>196,526</td>
</tr>
</tbody>
</table>


## Journey to work by mode, 2011

<table>
<thead>
<tr>
<th>Mode</th>
<th>Study Area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>2143</td>
<td>24,214</td>
<td>1,964,718</td>
</tr>
<tr>
<td>Rail</td>
<td>20</td>
<td>80</td>
<td>193,098</td>
</tr>
<tr>
<td>Bus</td>
<td>8</td>
<td>108</td>
<td>116,657</td>
</tr>
<tr>
<td>Other</td>
<td>207</td>
<td>2557</td>
<td>241,954</td>
</tr>
<tr>
<td>Total one method</td>
<td>2378</td>
<td>26,959</td>
<td>2,516,427</td>
</tr>
</tbody>
</table>


## Socio-economic advantage/disadvantage indexes, 2011

<table>
<thead>
<tr>
<th>SEIFA index</th>
<th>Disadvantage</th>
<th>Social-economic advantage/disadvantage</th>
<th>Economic resources</th>
<th>Education and occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bomaderry</td>
<td>928.8</td>
<td>921.2</td>
<td>936.0</td>
<td>920.4</td>
</tr>
<tr>
<td>Meroo Meadow</td>
<td>1061.0</td>
<td>1072.9</td>
<td>1084.9</td>
<td>1056.4</td>
</tr>
<tr>
<td>Jaspers Brush</td>
<td>1074.3</td>
<td>1077.3</td>
<td>1096.5</td>
<td>1102.2</td>
</tr>
<tr>
<td>Study area average</td>
<td>1021.4</td>
<td>1023.8</td>
<td>1039.1</td>
<td>1026.3</td>
</tr>
<tr>
<td>Shoalhaven LGA</td>
<td>955.6</td>
<td>944.5</td>
<td>969.3</td>
<td>941.0</td>
</tr>
<tr>
<td>NSW average</td>
<td>976.7</td>
<td>975.0</td>
<td>985.0</td>
<td>982.5</td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics, 2013
### Employment by industry 2011

<table>
<thead>
<tr>
<th>Industry</th>
<th>Study area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. persons</td>
<td>%</td>
<td>No. persons</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>78</td>
<td>2.7%</td>
<td>689</td>
</tr>
<tr>
<td>Mining</td>
<td>12</td>
<td>0.4%</td>
<td>135</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>264</td>
<td>9.0%</td>
<td>2665</td>
</tr>
<tr>
<td>Electricity, gas, water and waste services</td>
<td>24</td>
<td>0.8%</td>
<td>373</td>
</tr>
<tr>
<td>Construction</td>
<td>204</td>
<td>7.0%</td>
<td>3146</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>61</td>
<td>2.1%</td>
<td>696</td>
</tr>
<tr>
<td>Retail trade</td>
<td>344</td>
<td>11.8%</td>
<td>4329</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>236</td>
<td>8.1%</td>
<td>3178</td>
</tr>
<tr>
<td>Transport, postal and warehousing</td>
<td>109</td>
<td>3.7%</td>
<td>1239</td>
</tr>
<tr>
<td>Information media and telecommunications</td>
<td>33</td>
<td>1.1%</td>
<td>346</td>
</tr>
<tr>
<td>Financial and insurance services</td>
<td>58</td>
<td>2.0%</td>
<td>553</td>
</tr>
<tr>
<td>Rental, hiring and real estate services</td>
<td>57</td>
<td>2.0%</td>
<td>586</td>
</tr>
<tr>
<td>Professional, scientific and technical services</td>
<td>126</td>
<td>4.3%</td>
<td>1510</td>
</tr>
<tr>
<td>Administrative and support services</td>
<td>83</td>
<td>2.8%</td>
<td>1054</td>
</tr>
<tr>
<td>Public administration and safety</td>
<td>347</td>
<td>11.9%</td>
<td>3482</td>
</tr>
<tr>
<td>Education and training</td>
<td>209</td>
<td>7.2%</td>
<td>2617</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>441</td>
<td>15.1%</td>
<td>4780</td>
</tr>
<tr>
<td>Arts and recreation services</td>
<td>75</td>
<td>2.6%</td>
<td>572</td>
</tr>
<tr>
<td>Other services</td>
<td>105</td>
<td>3.6%</td>
<td>1246</td>
</tr>
<tr>
<td>Inadequately described/Not stated</td>
<td>57</td>
<td>2.0%</td>
<td>650</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2923</strong></td>
<td></td>
<td><strong>33,846</strong></td>
</tr>
</tbody>
</table>

### Dwelling Types, 2011

<table>
<thead>
<tr>
<th>Dwelling Type</th>
<th>Study area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate house</td>
<td>72.6%</td>
<td>64.2%</td>
<td>62.8%</td>
</tr>
<tr>
<td>Semi-detached, row or terrace house, townhouse</td>
<td>6.9%</td>
<td>3.7%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Flat, unit or apartment</td>
<td>9.7%</td>
<td>3.1%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Other dwelling</td>
<td>1.6%</td>
<td>1.3%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Dwelling structure not stated</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Total occupied private dwellings</td>
<td>90.7%</td>
<td>72.5%</td>
<td>90.3%</td>
</tr>
<tr>
<td>Unoccupied private dwellings</td>
<td>9.3%</td>
<td>27.5%</td>
<td>9.7%</td>
</tr>
<tr>
<td><strong>Total private dwellings</strong></td>
<td><strong>3,269</strong></td>
<td><strong>49,568</strong></td>
<td><strong>2,736,637</strong></td>
</tr>
</tbody>
</table>


### Households, 2011

<table>
<thead>
<tr>
<th>Households</th>
<th>Study area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average household size</td>
<td>2.6</td>
<td>2.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Family households</td>
<td>69.9%</td>
<td>69.9%</td>
<td>66.9%</td>
</tr>
<tr>
<td>Non-family households</td>
<td>30.1%</td>
<td>30.1%</td>
<td>33.1%</td>
</tr>
<tr>
<td><strong>Total households</strong></td>
<td><strong>2,966</strong></td>
<td><strong>35,933</strong></td>
<td><strong>2,471,295</strong></td>
</tr>
</tbody>
</table>


### Housing Tenure, 2011

<table>
<thead>
<tr>
<th>Housing tenure</th>
<th>Study area</th>
<th>Shoalhaven LGA</th>
<th>NSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned outright</td>
<td>33.2%</td>
<td>43.4%</td>
<td>38.8%</td>
</tr>
<tr>
<td>Owned with a mortgage</td>
<td>33.4%</td>
<td>27.9%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Renting</td>
<td>30.1%</td>
<td>25.0%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Other tenure type</td>
<td>0.8%</td>
<td>0.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Tenure type not stated</td>
<td>2.6%</td>
<td>2.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Total households</strong></td>
<td><strong>2,963</strong></td>
<td><strong>35,932</strong></td>
<td><strong>2,471,296</strong></td>
</tr>
</tbody>
</table>

Appendix C Community facility inventory

Inventory of community and recreational facilities within the study area and surrounds

Churches
- Sacred Heart Catholic Church Bomaderry.
- Anglican Church of Australia, Princes Highway Bomaderry.
- Shoalhaven Baptist Church, 17 Birriley Street, Bomaderry.
- Meroo Union Church, Boxsells Lane and Princes Highway, Meroo Meadow.

Schools, childcare and other educational facilities
- Bomaderry High School.
- Bomaderry Public School.
- Nowra Anglican College.
- TAFE Illawarra Institute – Bomaderry.
- Shoalhaven Community College.
- Platypus Kinda, 2 Karowa Street.
- Kids World Kindy Long Day Care Centre, 281 Princes Highway.

Aged care facilities
- Shoalhaven Nursing Home.
- Principal Shoalhaven (Aged care facility).

Services
- Mobil Petrol Station, 33 Bolong Road.
- Caltex Service Station, Bolong Road.
- Bomaderry Waste Water Treatment Plant, Bolong Road.
- Bomaderry Police Station (operated on a part-time operational basis by Nowra based officers and is not permanently staffed).
- Bomaderry Community Centre, 17 Birriley Street.

Open spaces, recreational facilities and clubs
- Bomaderry Sports Complex, Cambewarra Road.
- Thurgate Oval, Bolong Road/Barwon Street.
- Bomaderry Oval, Bolong Road.
- Artie Smith Oval, Cambewarra Road/Barwon Street.
- Reid Park, Bunberra Street/Tallyang Street.
• John Berry Reserve, Edwards Avenue/Samuel Street.
• Mulgen Crescent Reserve, Mulgen Crescent.
• Endeavour Park, Leonard Street.
• Sampson Park, Sampson Crescent.
• Penrose Drive Reserve, Penrose Drive/Woorin Close.
• Cavalier Avenue, Cavalier Avenue/Formby Close.
• Sheraton Gardens Reserve, Sheraton Circuit.
• Bomaderry Lions Park, Bolong Road.
• Bomaderry Aquatic Centre, Cambewarra Road.
• Bomaderry Bowling Club, 154 Meroo Road.
• Bomaderry Narang Road Tennis Courts, Narang Road.
• Bomaderry Cambewarra Road Tennis Courts, Cambewarra Road.
• Bomaderry RSL Club, Bunberra Street.

Accommodation facilities
Meroo Meadow
• Meadow Mountain Lodge

Jaspers Brush
• Silos Estate.
• Jaspers Winery
• Beau Glen bed and breakfast.
• Aurora @ Berry.
• Woodbyne.
• Jaspers Cottage.
• Lill’s Country Cottage.

Bomaderry
• Hanigans Cottage.
• Bomaderry Hotel.
• Blue Heaven Bed and Breakfast.
• Tree Haven Tourist Park.
• Best Western Bomaderry.
• Avaleen Lodge Motor Inn.
• Bomaderry Motor Inn.