

## 7.9 Land use and property

This chapter assesses land use and property impacts, which is a key environmental issue for the project. The relevant extract from the DGRs is presented below. Environmental management measures are identified to minimise impacts.

The environmental assessment requirements that relate to socio-economic impacts are addressed in **Section 7.10**.

Director-General's requirements	Where addressed
<i>Directly-affected properties and land uses adjacent to the project, including: impacts to land use viability and future development potential, property allotment, land sterilisation and severance impacts.</i>	Section 7.9.2 Section 7.10
<i>The agricultural sector taking into account the fragmentation and potential loss of agricultural and farm viability including internal and external farm access arrangements both during construction and operation of the project.</i>	Section 7.9.2 Section 7.10

### 7.9.1 Existing environment

#### Regional context

The Princes Highway is the main transport corridor for the South Coast, and provides linkages between rural communities, Berry and other urban and employment centres in the region. This includes Shellharbour, Kiama and Gerringong to the north, and the regional centre of Nowra-Bomaderry to the south. Gerringong, located immediately to the north of the project, is a small to medium sized urban area consisting mostly of low density housing and retail services.

Nowra-Bomaderry is the closest major regional centre to the project with a current population of 27,477 (Australian Bureau of Statistics, 2006). This centre provides a mix of residential, commercial, retail, industry, and special uses, such as the Royal Australian Navy Air Force base. Nowra lies in the Shoalhaven LGA which is projected to grow by an additional 34,000 people by 2031, with the majority of growth concentrated in Nowra-Bomaderry (DoP, 2007b). This is expected to strengthen its role as the major residential, employment and administrative centre for the northern part of the South Coast region.

The Illawarra Regional Strategy (DoP, 2007a) and the South Coast Regional Strategy (DoP, 2007b) apply to the Kiama and Shoalhaven LGAs respectively. The aim of these strategies is to ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment needs of the region over the next 25 years.

Berry, the only urban settlement located along the project, is not identified as an emerging centre and does not contain any major future growth areas. Rather, both regional strategies identify future population and employment growth in centres outside of the areas immediately surrounding the project. This includes infill development and major new release areas in Nowra-Bomaderry. Both strategies identify the importance of and the need to protect the rural (agricultural) and environmental assets (such as biodiversity corridors) of the regions.

#### Local context

The project and its surrounds (the project area) is subject to the provisions of the *Kiama Local Environmental Plan 2011* (Kiama LEP) the *Shoalhaven Local Environmental Plan 1985* (Shoalhaven LEP), and the draft *Shoalhaven Local Environmental Plan 2009* (draft Shoalhaven LEP).

The project would pass through three zones of the Kiama LEP and nine zones of the Shoalhaven LEP (refer to **Table 7-65**). Under the Kiama LEP, the majority of the project is zoned SP2 Infrastructure (Classified Road). Under the Shoalhaven LEP, the majority of the project is zoned 1(b) Rural (Arterial and Main Road Protection) or 5(d) Special Uses (Proposed Arterial Roads Preservation and Widening of Existing Arterial Roads Preservation). The land use zones are shown in **Figure 7-44**.

Shoalhaven City Council has exhibited the draft Shoalhaven LEP. Under the draft Shoalhaven LEP, the project would pass through six zones. The majority of the project area is zoned RU1 Primary Production or SP2 Infrastructure. The remainder is zoned as RE1 Public Recreation, R2 Low Density Residential, R5 Large Lot Residential or E3 Environmental Management (Town Creek). Roads are listed as a permissible land use under all zones.

The minimum lot size for each zone within the project area is listed in **Table 7-65**. For land zoned rural within the project area, the minimum lot size required under the Kiama LEP and the Shoalhaven LEP is 40 hectares. However, the majority of rural lots within the project area fall below 40 hectares. The LEPs provide exemptions to the minimum lot size subject to satisfying listed objectives and criteria within the relevant LEP. In most cases, this would remove the dwelling entitlement for the created lot.

Land uses within the project area largely reflect the land use zones, and consist of rural/agricultural, residential, commercial and light industrial uses. Rural/agricultural land uses are the dominant land use within the project area, with residential, commercial and light industry located in the urban area of Berry (see **Figure 7-45**). The primary industrial, commercial and recreation areas within Berry are shown in **Figure 7-46**.

**Table 7-65 Kiama LEP and Shoalhaven LEP – minimum lot sizes.**

Zone	Minimum lot size
<b>Kiama Local Environmental Plan 2011</b>	
SP2 Infrastructure (Classified Road)	40 hectares
RU2 Rural Landscape	40 hectares
E3 Environmental Management	40 hectares
<b>Shoalhaven Local Environmental Plan 1985</b>	
1(b) Rural (Arterial and Main Road Protection)	40 hectares
1(g) Rural (Flood Liable Zone)	40 hectares
2(a1) Residential (A1)	500m <sup>2</sup> – 650m <sup>2</sup> *
2(a2) Residential (A2)	2000m <sup>2</sup>
2(c) Residential (Living Areas)	500m <sup>2</sup> – 650m <sup>2</sup> *
5(d) Special Uses (Proposed Arterial Roads Preservation and Widening of Existing Arterial Roads Preservation)	Not specified in LEP or Development Control Plan (DCP)
6(a) Open Space (Existing)	Not specified in LEP or DCP
6(c) Open Space (Proposed)	Not specified in LEP or DCP
9(a) Natural Hazards (Urban Flooding)	Not specified in LEP or DCP

\* The minimum lot size for residential development, other than zone 2(a2), is established in DCP No.100 (Subdivision Code). Minimum lot sizes set within the DCP are subject to performance criteria.

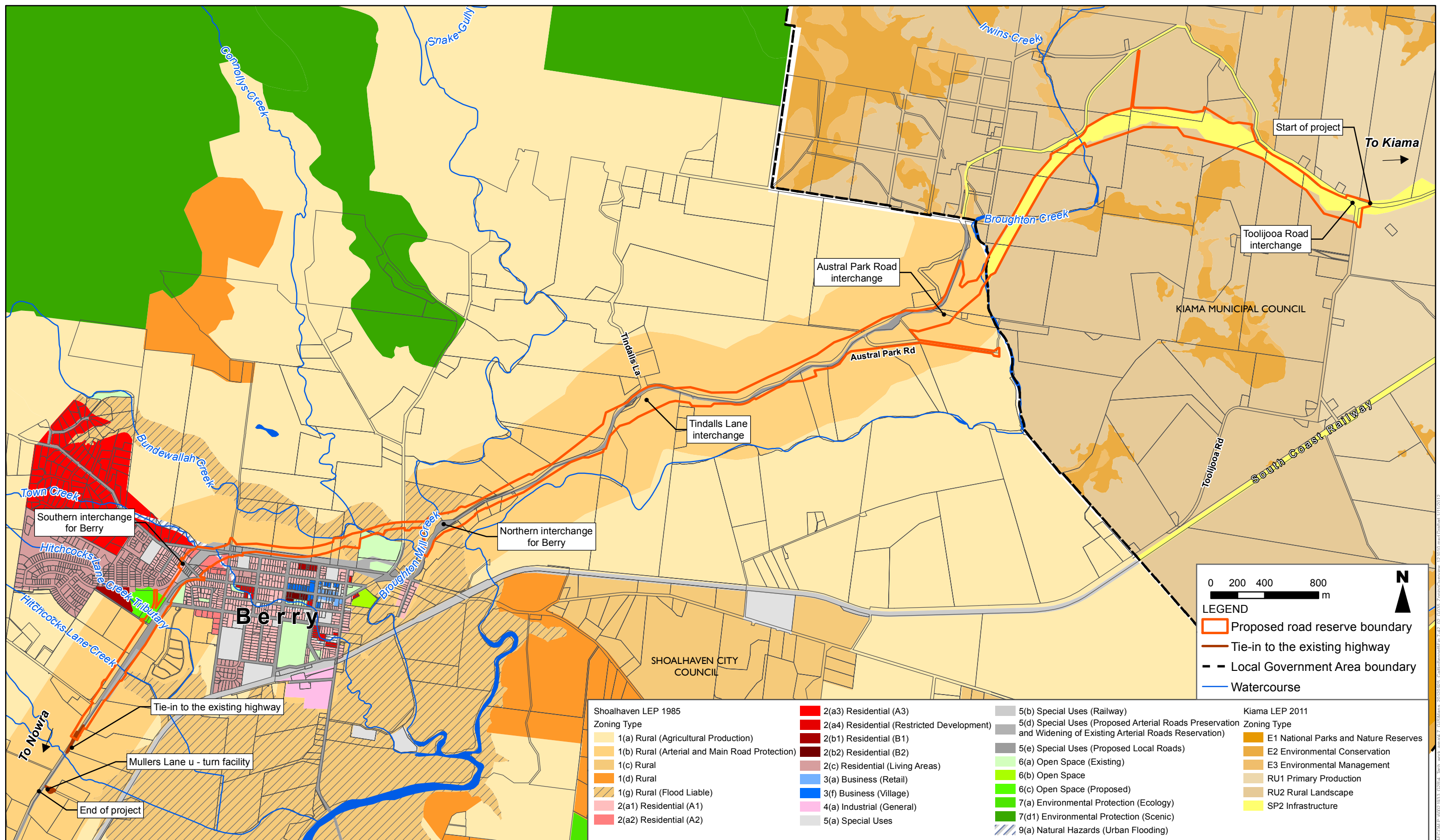


Figure 7-44 Overview of land use zones as shown in the Shoalhaven LEP 1985 and Kiama LEP 2011

Source: Dept. of Lands (2011), RTA (2011), Kiama Municipal Council (2007), Shoalhaven Council (2007)



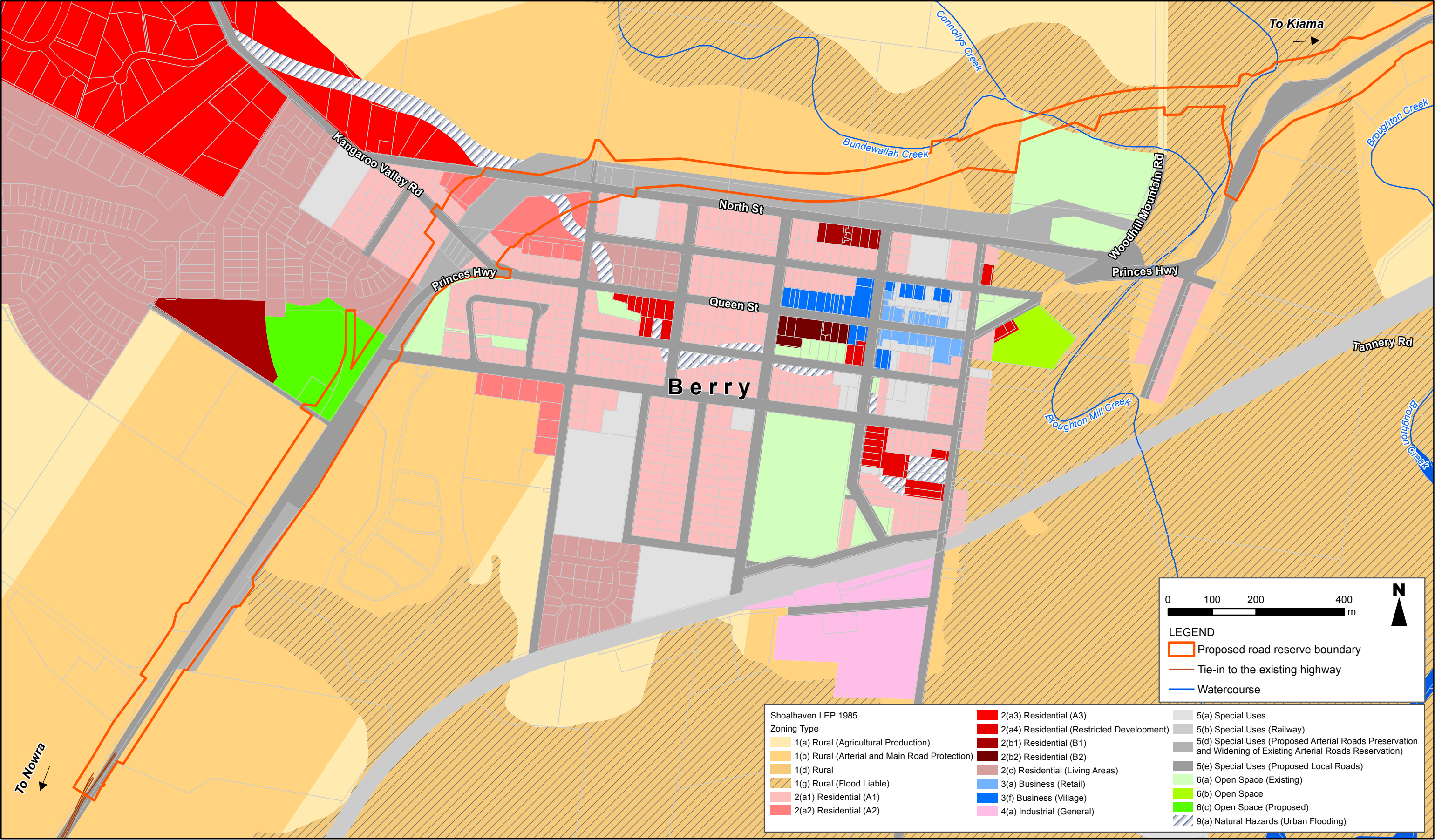


Figure 7-45 Overview of land use zones as shown in the Shoalhaven LEP 1985 (Berry detail)

Source: Dept. of Lands (2011), RTA (2011), Kiama Municipal Council (2007), Shoalhaven Council (2007)





Figure 7-46 Industrial, commercial and recreational land uses within Berry

Source: AECOM (2012)



**Figure 7-47 and Figure 7-48** display land uses for properties directly impacted by the project, property by property. The area consists of residential and rural residential properties as well as agricultural properties. The area also contains open space, vacant lots, farm dams and areas set aside for future road corridors.

Most of the agricultural land in the project area is used for grazing associated with dairy operations or beef production. A number of agricultural businesses operating in the area are associated with dairy farming cooperatives, such as the Berry Dairy Co-operative and Gerringong Dairy Co-operative. Other agricultural activities include turf farming, cultivation (such as livestock feed), agistment, vineyards, organic farms and hobby farms.

### **Rural land use**

The former NSW Agriculture's classification scheme divides agricultural land into six classes, with Class 1 being the land of the highest value in terms of suitability for intensive cultivation and a wide range of agricultural activities. The following classes of agricultural land are found in the project area:

- Class 2 – arable land that is suitable for regular cultivation for crops but not suited to continuous cultivation. It has moderate to high sustainability for agriculture, but soil factors or environmental constraints reduce the overall level of production and may limit the cropping phase to a rotation with sown pastures.
- Class 3 – grazing land or land well suited to pasture improvement. It may be cultivated or cropped in rotation with pasture. The overall production level is moderate. Erosion hazards, soil structure and other factors (such as climate) may limit the capacity for cultivation. Soil conservation and drainage works may be required.
- Class 4 - land that is suitable for grazing but not for cultivation. Agriculture is based on native pastures or improved pastures using minimum tillage techniques. Production may be seasonally high but the overall production level is low as a result of major environmental constraints.
- Class 5 – land unsuitable for agriculture or at best suited to only light grazing. Agricultural production is very low to zero due to severe constraints including economic factors, which preclude land improvement.

**Figures 4 and 5** in the *Socio-economic Technical Paper* (AECOM, 2012) at **Appendix L** show the classification of agricultural land within the study area.

The key agricultural land use in the project area is grazing associated with dairying and beef production. The majority of agricultural land in the project area is classified as Class 2 and Class 3 land, which largely correspond to areas of floodplain. The remaining agricultural land is classified as Class 4 and 5. As identified earlier within this section, rural lots in the project area are typically less than 40 hectares with some lots consolidated into larger land holdings. The smallest lots are typically rural-residential land holdings, which are scattered throughout the project area. However, clusters of rural-residential lots also occur at Broughton Village, Foxground, near Tindalls Lane and west of Berry along Agars Lane (near the David Berry hospital). Bed and breakfast accommodation businesses are also scattered within the rural section of the project area. A disused quarry is located just north of Berry, outside and directly adjacent to the project area.



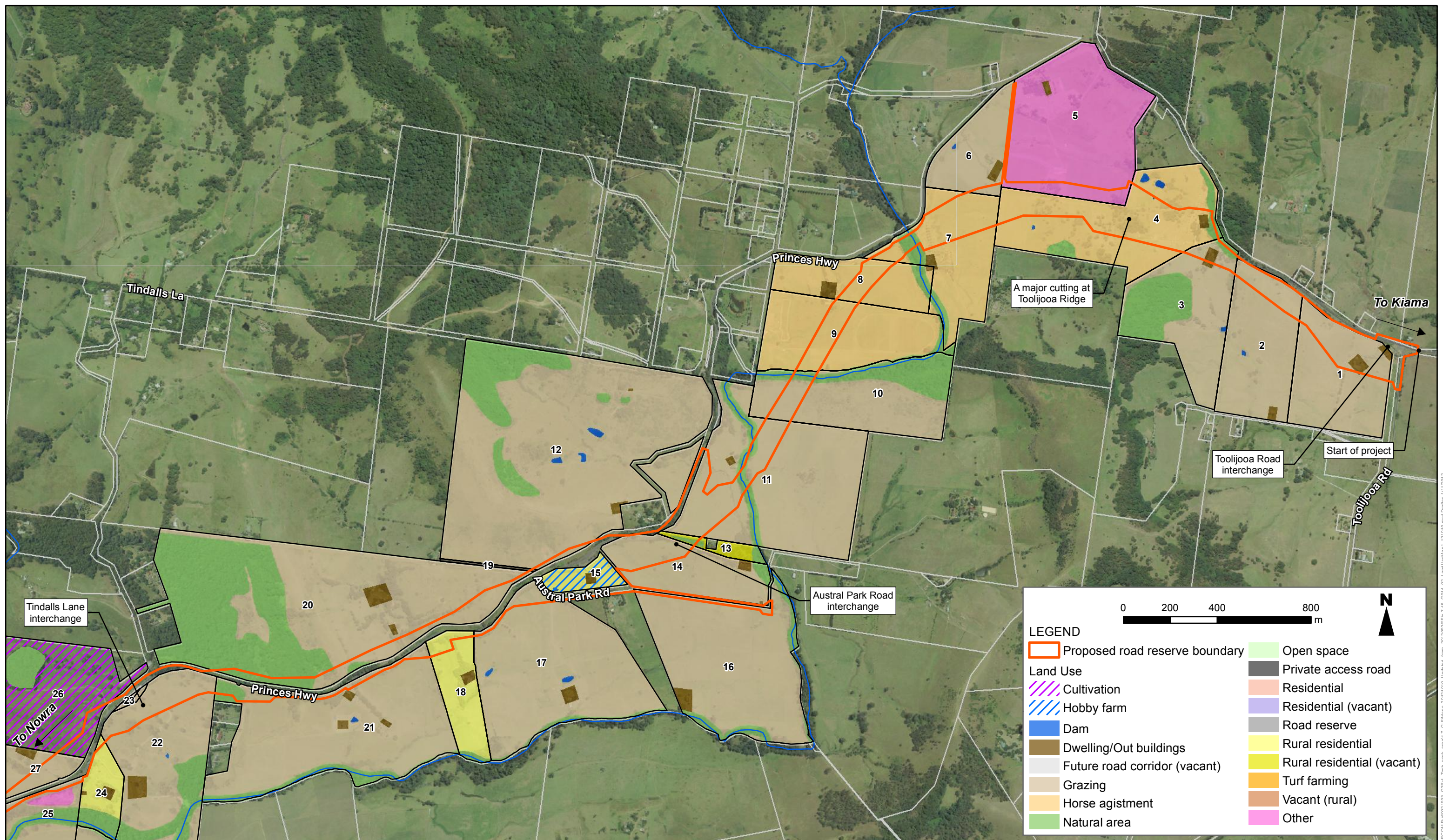


Figure 7-47 Overview of land uses (Toolijooa Road interchange to Tindalls Lane interchange)

Note: Lot numbers refer to Table 7 - 64

Source: AECOM (2012)



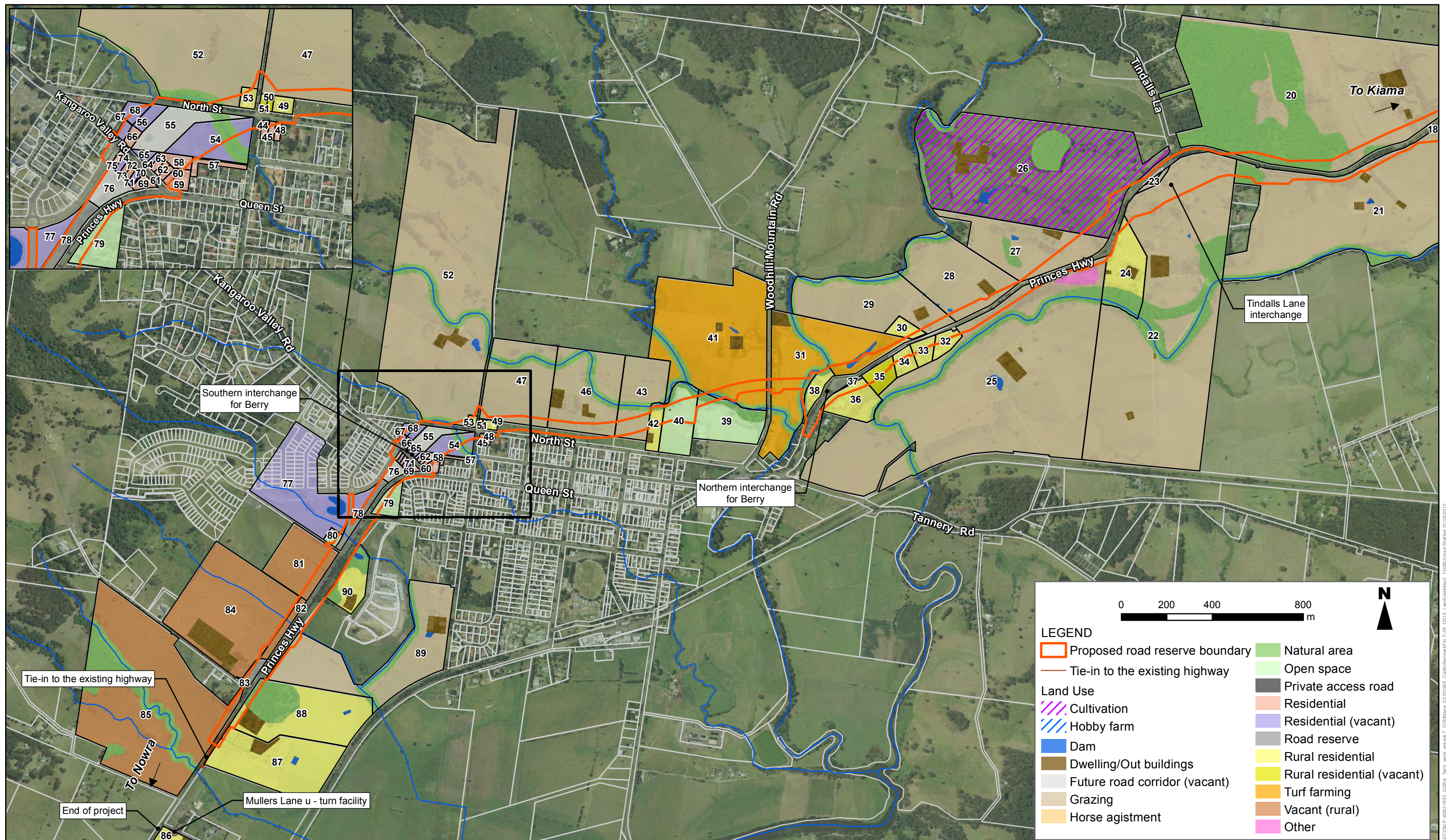


Figure 7-48 Overview of land uses (Tindalls Lane interchange to Schofields Lane junction)

Note: Lot numbers refer to Table 7 - 67  
Source: AECOM (2012)



## Urban land use

Berry is largely contained within a historic street grid with the historic area of Berry, at Pulman Street to the east and the more recent residential expansions occurring to the west along Kangaroo Valley Road. Recreational and open space areas are provided at Mark Radium Park, Hazelberry Park (Berry Showground), David Berry Memorial Park, Apex Park, the sportsground at the eastern end of North Street and the Camp Quality Memorial Park. The Berry Riding Club and a number of other equestrian clubs including the Woodhill Mountain Pony Club and the Shoalhaven Show jumping Club operate from a property owned by Shoalhaven City Council on North Street, adjacent to the sportsground (refer to **Figure 7-46**).

Due to its proximity to Nowra and Bomaderry, Berry serves as a commuter town to these larger towns. Berry also provides a range of retail services and serves as a popular rest and refreshment stop for highway traffic and as a tourist destination. The retail and commercial areas of Berry are largely concentrated along Queen Street (Princes Highway) between Prince Alfred Street and Albany Street.

A light industrial area is located south of the railway line around Old Creamery Lane. Businesses within this light industrial area include automotive repair operations, self-storage facilities and agricultural suppliers as well as commercial/retail businesses, such as the Treat Factory (a wholesale food supplier). The Berry sewerage treatment plant is located on Wharf Road, south of the light industrial area.

Areas immediately north of North Street, other than the recreational uses described earlier within this section, are used for grazing (dairy), horse agistment, and rural-residential purposes. Two churches are located on North Street, and are listed as local heritage items under the Shoalhaven LEP.

Recent or planned residential development within Berry is largely located along Kangaroo Valley Road, such as Huntingdale Park Estate, Graham Park, and the Gables. Two retirement villages are also under development near Victoria Street namely the Arbour and the Grange. The Arbour is accessed from Victoria Street and is expected to be completed mid 2013 (Michael Sullivan, The Arbour, pers. comm. 5 October 2011). The Grange accessed from Victoria Street has been operational for a few years, with a remaining 14 villas still to be constructed ([www.thegrangeatberry.com.au](http://www.thegrangeatberry.com.au)).

Huntingdale Park Estate and Graham Park are located directly adjacent to the project. The Huntingdale Park Estate development has approval for 243 lots and is still under development with completed residences located along Huntingdale Park Road, Lincoln Close and Boran Place. An equestrian centre, a manager's residence and four cabin tourist development was approved by Shoalhaven City Council in 2010 for the Graham Park property. This development has not commenced.



## Public utilities

Public utilities within the project area comprise:

- The Eastern Gas Pipeline (Jemena) that traverses most of the project area and crosses the existing highway in the vicinity of Tindalls Lane.
- Endeavour Energy 132 kV electrical transmission lines that traverse the western side of Berry and the South Coast railway line.
- An Optus fibre optic cable that traverses the project area on a similar alignment to the Eastern Gas Pipeline and Endeavour Energy 132 kV transmission line.
- Shoalhaven Water sewer and water pipelines that run from Pulman Street to Wharf Road, Berry.
- A Telstra fibre optic cable that follows the southern side of the South Coast Railway Line through the project area.
- The South Coast Railway Line runs largely adjacent to the highway to the north and south of Berry.

Public utilities are discussed in further detail in **Chapter 4**.

## 7.9.2 Assessment of potential impacts

### Construction

Long term impacts on property and land use would occur from the commencement of construction. These would include the severance, fragmentation and reductions in the size of available agricultural and residential land, and changes to property accesses. The immediate but long term impacts of the project have been considered as impacts associated with the operation stage of the project and are discussed below.

During construction, temporary impacts to property and land use would occur as a result of:

- Ancillary construction facilities, such as stockpile sites and site compounds.
- Construction sediment basins.
- Disruptions or changes to local roads and property accesses.

Temporary ancillary construction facilities sites, if located outside the road reserve for the project, would result in a temporary change in land use during construction. The majority of identified potential ancillary sites are located on agricultural land currently owned by RMS and are primarily located outside the final road reserve. In the event that land would be required that is not owned by RMS, discussions would be held with the affected property owners about purchasing or leasing the required land in the short-term during the construction phase of the project.

The proposed sedimentation basins are located within the road reserve. It is not expected that additional land use and property impacts would arise from the installation of basins at these sites over and above what would occur as a result of the operational impacts of the project. However, should sites be required that are not located within either the road reserve or within RMS owned land, then additional land would need to be leased over the short term during the construction phase of the project.



The project would also require the alteration and/or temporary disruption to property accesses to accommodate the construction of the project. This may also disrupt internal farm movements where the project would permanently sever a property into two or more parcels. In most cases, RMS has already acquired these properties. However, temporary internal access arrangements would need to be negotiated with impacted landowners or with RMS tenants, to enable internal access to continue with disruption minimised as much as reasonably possible during construction. The permanent impact of these alterations is discussed further in this section (as an operational impact).

The adjustment and realignment of major service utilities would also be undertaken during construction. This has been discussed in **Section 4.2.12**.

## **Operation**

Potential impacts on property and land use by the project would include:

- Property acquisition.
- Severance and sterilisation of land.
- Changes in property access.
- Impacts on future development potential of land within the project and adjoining areas.
- Impacts on dwelling entitlement.
- Impacts on urban settlement patterns and future development potential of adjoining land.

### *Property acquisition*

The project would require adjustments to the boundary of the existing highway corridor. Consequently, around 112 hectares of land currently outside the existing corridor would be included in the road reserve. This land, referred to as directly affected land, would be required permanently for the project and would no longer be available to be used for its original purpose.

RMS has acquired a large portion of the directly affected land and would acquire the remainder of directly affected land prior to commencement of construction. This may involve:

- Partial acquisitions where only part of a property would fall within the road reserve.
- Full acquisitions, where the majority of a lot would be impacted.

For allotments that are subject to partial acquisitions, there would be residual portions of land remaining (referred herein as residual land). In some cases, RMS may also acquire the entire property where the partial acquisition of a property may make a property unviable for its original use (for example, where agricultural uses are no longer viable due to the fragmentation of a lot). However, land acquired in excess of the project needs, ie outside the road reserve, would be sold following completion of the project.

Examples where full acquisition may be required for properties that have areas of residual land remaining include in the area of the Toolijooa cutting where an allotment is severed or where the project severs an allotment across the Broughton Creek floodplain.

A total of 90 lots would be directly impacted by the road reserve. The majority of land that would be impacted is rural land used for grazing purposes associated with dairying or beef production and horse agistment (refer to **Table 7-66**).



As of August 2012, of the 90 properties, 39 properties had already been acquired in full by RMS, totalling around 308 hectares (being the combined total of directly affected land and the residual land). The majority of these properties have been acquired under the hardship provisions of the RMS *Land Acquisition Information Guide* (RTA, 2011).

**Table 7-66 Directly affected and residual land, classified by land use**

Land use	Directly impacted* (hectares)	Residual land** (hectares)	Total (hectares)
<b>Rural</b>			
Grazing (for dairy or beef production)	49	522	571
Horse agistment	23.5	50.7	74.2
Turf farming	3	32	35
Cultivation (hay, lucerne or silage)	1.6	35.8	37.4
Vacant (rural)	3	52	55
Dwelling and outbuildings on rural properties	1.3	16.5	17.8
Dams	0.14	2.71	2.85
Rural residential with hobby farming	3	0	3
Rural residential	10.5	39.6	50.1
Vacant (rural residential)	1	2	3
Natural area, including native or dense vegetation and watercourses	6.6	114.5	121.1
Private access road for rural properties	0.02	0.4	0.42
Other rural uses (tourism and disused quarry)	3.1	29.4	32.5
<b>Urban</b>			
Residential***	1	0.6	1.6
Vacant (residential)	1.8	11.6	13.4
Open space, including areas for stormwater detention.	1.9	7.5	9.4
Future road corridor vacant	1.2	0.5	1.7
<b>Other</b>			
Road reserve	0.6	1.4	2
<b>Total</b>	<b>112</b>	<b>919.5</b>	<b>1031.5</b>

\* *Directly impacted* refers to land that would be contained within the road reserve and subject to land acquisition.

\*\* *Residual land* refers to remaining portions of allotments following partial or full acquisition that would not be ultimately contained within the road reserve

\*\*\* One residential property also currently operates a bed and breakfast accommodation from the property.

The remaining 51 properties (of the total 90 properties impacted by the project) remain in private ownership or within the ownership of Shoalhaven City Council (six properties). A further 63.8 hectares of directly impacted land would be acquired as part of the project. In most cases, acquisition would be limited to partial or strip acquisition. Any additional acquisitions (such as full acquisitions for hardship) would be determined during detailed design and in consultation with the affected landowners. All acquisitions would be in accordance with the *Land Acquisition (Just Terms) Act 1991* and the RMS *Land Acquisition Information Guide* (March 2011) and would occur prior to construction.



**Figure 7-47, Figure 7-48 and Table 7.67** provide a property-by-property review of the acquisitions required by the project and land use impacts. The determination of these boundaries has been derived from a combination of ground survey, the proposed road reserve boundary and cadastral overlay. This would be subject to further refinement during detailed design, which may alter the final acquisition requirements and estimates.

#### *Land use viability, severance and sterilisation of land*

Impacts on the viability of current or future uses of directly impacted properties may occur depending on the amount of land acquired, the area of residual land remaining, and the degree of severance and sterilisation.

Of the 90 allotments (lots) directly impacted by the project:

- 25 lots would be fully contained within the road reserve.
- 53 lots would be impacted with one parcel remaining.
- 12 lots would be impacted with two or more unjoined parcels remaining.

Land use sterilisation refers to where the project severs a property into fragments of a size or shape that makes the ongoing use of that land unviable. In these cases, the land use can no longer be used for its current purpose and has no development potential.

Areas of land that would be sterilised as a result of the project are located at the Austral Park Road interchange, around the western end of the Austral Park Road extension, Tindalls Lane interchange, the northern interchange for Berry, the southern interchange for Berry and areas where the project closely follows the existing highway alignment. These areas have been incorporated into the road reserve, and would primarily be used for landscaping. Sections of redundant highway would be rehabilitated and landscaped.

For the majority of lots that would not be fully contained within the road reserve, the acquisition of land at these lots would result in:

- Land use severance, being the creation of a physical barrier between a property and an existing road access to that property.
- Impacts on the viability or development potential for residual land due to the size of the residual lot. This includes the loss of dwelling entitlements.

The project has been designed to minimise the land use severance of land by following, where possible, property boundaries or the existing alignment of the highway. However, a number of properties would be subject to land use severance to varying degrees by property acquisition.

The land use severance, land use viability and future development potential impacts on agricultural land, rural residential land, urban land, open space and other land uses is discussed separately in this section.



**Table 7-67 Property impacts and percentage of directly affected property as at September 2012**

<b>Lot number</b>	<b>Predominant land use</b>	<b>Total lot size (hectares)</b>	<b>Area of direct impact (hectares)</b>	<b>Area of residual land (hectares)</b>	<b>Percentage of lot directly impacted</b>	<b>Ownership</b>
1	Grazing	18.34	5.89	12.45	32	Private
2	Grazing	18.74	2.86	15.89	15	Private
3	Grazing	20.59	1.62	18.97	8	Private
4	Horse agistment	28.99	13.02	15.97	45	RMS
5	Other (tourism)	31.71	3.13	28.58	10	Private
6	Grazing	10.27	0.47	9.80	5	Private
7	Horse agistment	18.41	6.52	11.88	35	RMS
8	Horse agistment	12.30	1.94	10.36	16	RMS
9	Horse agistment	20.72	3.06	17.66	15	RMS
10	Grazing	22.59	2.16	20.43	10	Private
11	Grazing	43.66	7.95	35.71	18	Private
12	Grazing	77.64	0.44	77.20	1	Private
13	Rural residential	2.08	0.50	1.59	24	Private
14	Grazing	13.52	4.13	9.39	31	Private
15	Hobby farm/Rural residential	6.48	6.48	-	100	RMS
16	Grazing	34.29	0.77	33.52	2	Private
17	Grazing	35.90	1.58	34.32	4	RMS
18	Rural residential	8.88	1.12	7.76	13	Private
19	Private access road	0.42	0.02	0.39	5	Private
20	Grazing	69.62	6.66	62.96	10	Private
21	Grazing	41.44	3.19	38.25	8	RMS
22	Grazing	60.92	5.84	55.08	10	Private
23	Grazing	0.32	0.32	-	100	Private



Lot number	Predominant land use	Total lot size (hectares)	Area of direct impact (hectares)	Area of residual land (hectares)	Percentage of lot directly impacted	Ownership
24	Rural residential	5.70	0.16	5.55	3	RMS
25	Grazing	67.78	1.85	65.93	3	Private
26	Cultivation	42.31	1.57	40.73	4	RMS
27	Grazing	10.94	2.48	8.46	23	Private
28	Grazing	11.84	1.09	10.74	9	Private
29	Grazing	12.87	0.52	12.35	4	Private
30	Rural residential	0.96	0.16	0.80	17	Private
31	Turf farm	16.62	2.36	14.26	14	Private
32	Rural residential	1.00	0.37	0.63	37	Private
33	Rural residential	1.00	0.46	0.54	46	RMS
34	Rural residential	1.00	0.35	0.65	35	Private
35	Rural residential	1.42	0.69	0.73	48	RMS
36	Rural residential	3.10	0.58	2.51	19	RMS
37	Road reserve	0.09	0.09	-	100	RMS
38	Rural residential	1.22	1.22	-	100	RMS
39	Open space	5.29	0.33	4.95	6	SCC
40	Open space	4.16	1.33	2.83	32	SCC
41	Turf farm	24.97	1.19	23.78	5	RMS
42	Rural residential	1.23	0.50	0.73	41	Private
43	Grazing	6.25	0.98	5.27	16	Private
44	Residential	0.08	0.03	0.05	38	Private
45	Residential	0.07	0.02	0.06	21	Private
46	Grazing	10.81	1.31	9.50	12	Private
47	Grazing	10.65	0.90	9.75	8	Private

Lot number	Predominant land use	Total lot size (hectares)	Area of direct impact (hectares)	Area of residual land (hectares)	Percentage of lot directly impacted	Ownership
48	Residential	0.07	0.004	0.07	5	Private
49	Rural residential	0.20	0.20	-	100	RMS
50	Rural residential (Vacant)	0.06	0.06	-	100	RMS
51	Rural residential (Vacant)	0.07	0.07	-	100	RMS
52	Grazing	56.95	0.15	56.79	0.3	RMS
53	Rural residential	0.20	0.17	0.03	86	RMS
54	Residential (vacant)	1.69	1.12	0.57	66	RMS
55	Future road corridor (vacant)	1.27	1.27	-	100	RMS
56	Residential (vacant)	0.25	0.25	-	100	RMS
57	Residential	0.2	0.002	0.198	1	Private
58	Residential	0.22	0.20	0.02	91	Private
59	Residential & Bed and breakfast	0.21	0.01	0.20	5	Private
60	Residential	0.06	0.06	0.01	88	RMS
61	Residential	0.06	0.06	-	100	RMS
62	Residential	0.06	0.06	-	100	RMS
63	Residential	0.07	0.07	-	100	RMS
64	Residential (vacant)	0.05	0.05	-	100	RMS
65	Residential (vacant)	0.11	0.11	-	100	RMS
66	Residential	0.14	0.14	-	100	Private
67	Residential (vacant)	0.12	0.10	0.03	78	RMS
68	Residential (vacant)	0.26	0.12	0.14	47	RMS
69	Residential	0.13	0.13	-	100	Private
70	Residential (vacant)	0.01	0.01	-	100	RMS
71	Residential (vacant)	0.07	0.07	-	100	RMS



Lot number	Predominant land use	Total lot size (hectares)	Area of direct impact (hectares)	Area of residual land (hectares)	Percentage of lot directly impacted	Ownership
72	Residential	0.07	0.07	-	100	RMS
73	Residential	0.06	0.06	-	100	RMS
74	Residential (vacant)	0.07	0.07	-	100	RMS
75	Residential	0.07	0.07	-	100	RMS
76	Future road corridor (vacant)	0.54	0.54	-	100	RMS
77	Residential (vacant)	11.71	0.06	11.65	1	Private
78	Road reserve	1.32	1.32	0.00	100	RMS
79	Open space	1.24	0.35	0.89	28	SCC
80	Open space	0.40	0.12	0.28	30	SCC
81	Vacant (rural)	6.07	0.99	5.08	16	Private
82	Vacant (rural)	0.97	0.97	-	100	Private
83	Road reserve	0.58	0.45	0.13	77	SCC
84	Vacant (rural)	19.57	0.23	19.34	1	Private
85	Vacant (rural)	37.51	0.64	36.87	2	SCC
86	Rural residential	5.32	0.06	5.26	1	Private
87	Rural residential	11.69	0.11	11.58	1	Private
88	Rural residential	12.69	0.59	12.10	5	Private
89	Grazing	16.60	0.24	16.36	1	Private
90	Rural residential	3.09	0.05	3.04	2	Private
	<b>Total</b>	<b>1031.5</b>	<b>112</b>	<b>919.5</b>		

## *Changes in property accesses*

### **External property access**

External property access refers to the connection of a property to the external road network. This may be a direct driveway connection at the property boundary, via a private road or by a right of way access through a neighbouring property.

Access to adjoining properties would be affected by the project, and in most cases, accesses would require permanent relocation to cater for the new or widened road reserve. A total of 47 properties across the project would have some physical change to external access arrangements.

Agricultural and rural residential properties located along the off-line section of the project between Toolijooa Road and the Austral Park Road interchange would not have property accesses altered by the project, except where:

- The access would be impacted by minor realignment works of the existing highway near the Toolijooa Road and Austral Park Road interchanges.
- The access to the existing highway for two properties would be lost as the project would physically separate the property from the existing highway. In these instances, underpasses have been provided to maintain direct access to the existing highway.

Agricultural and rural residential properties located along the on-line upgrade sections of the project would have their direct access to the highway maintained but restricted to left-in left-out movements (as discussed in **Section 7.1.3**). The potential impacts of this change on travel times are discussed in **Section 7.9** and **Section 7.10**.

For some agricultural and rural residential properties located along the on-line upgrade sections of the project, where road safety standards (such as sight distances) cannot be met at the current access point, the access would need to be relocated and the driveway extended accordingly. Opportunities to consolidate multiple property accesses to one access point to the project would also be explored by RMS with the affected landowners as part of detailed design. The exception to this would be at the following locations:

- For properties located south of the Austral Park Road interchange, the current direct access to the highway would be removed as the design could not safely maintain this access. Instead, access to these properties would be provided via the extended and upgraded Austral Park Road, which would connect to the Austral Park Road interchange.
- For properties located north-west and south-east of the northern interchange for Berry, a consolidated access driveway would be provided to connect these properties to the retained section of the highway south of the interchange.

For properties within Berry, changes to accesses would be required at properties that would be impacted by the project due to road closures at North Street, Victoria Street and Hitchcocks Lane. These include:

- An agricultural property that currently has direct access to North Street near Albany Street. A new access is currently being designed to provide access via Rawlings Lane.
- Any properties located on North Street located west of the cul-de-sac would have a driveway connection to the cul-de-sac.
- A property located adjacent to the south bound on-ramp at the southern interchange for Berry. A new access would be provided to the cul-de-sac at the western end of Victoria Street.
- Properties that currently have direct access to the highway via Hitchcocks Lane. Hitchcocks Lane would be modified to connect to Huntingdale Park Road.



One of the properties located on North Street would lose its current access via North Street and the George Street road reserve (lot number 44). It would not be replaced as part of the project and would be fully acquired by RMS. This would impact on the future land use options for this property, which is discussed later within section 7.9.2.

The RMS has already met with individual property owners to discuss functional and safe access arrangements, and consultation with affected property owners would continue during the detailed design phase of the project. A complete list of access changes to properties in the vicinity of the project is provided in **Appendix L**.

### ***Internal farm access arrangements***

The project would sever or isolate some parcels of agricultural land that may prohibit or limit internal movements including:

- Properties near the Toolijooa cutting and Broughton Creek bridges, where the project would sever and isolate properties to varying degrees.
- A property, located near Austral Park Road interchange, where the project would result in an additional barrier to farm movements given the property is already severed by the existing highway and Broughton Creek.
- Properties near the bridge at Berry, where the bridge would cross over two agricultural properties (turf farms).
- An agricultural property (grazing associated with a dairy), located directly north of the project at Berry, which would have an isolated parcel that would no longer be viable for its current land use .
- A property in west Berry, located west of the project, would have an isolated parcel of land as a result of the connection of Hitchcocks Lane to Huntingdale Park Road. The area of land that would be used for this connection is currently used as a private access road.

Where an agricultural property would be severed into two or more parcels, a suitable means of restoring internal access by connecting the fragmented portions of land would be provided, if this can be reasonably reinstated. Discussions to date with impacted property owners have identified the need to provide property underpasses near Toolijooa Ridge, access under Broughton Creek bridges and extensions to an existing cattle underpass. For properties adjacent to the bridge at Berry, restricted access would be provided to enable property owners to pass and gain access to fragmented parcels. These discussions would continue during the detailed design of the project. Where the access cannot be maintained, the isolated residual parcel would be acquired. The impacts on the viability of these agricultural properties are considered in **Section 7.10**. A complete list of internal access impacts is provided in **Appendix L**.

### ***Impact on land use viability and development potential of land***

#### ***Agricultural land***

As shown in **Table 7-66**, the majority of the agricultural land directly impacted by the project is presently used for the livestock grazing associated with dairy or beef production, or for horse agistment. The majority of the lots are classified as Class 2 and 3 agricultural land by the former NSW Agriculture, but are below the minimum lot size for rural areas.

The greatest impact on agricultural land uses would occur where the project involves new sections of highway (an off-line upgrade) at Toolijooa Ridge, Broughton Creek floodplain and in areas north of Berry. Details of agricultural land impacted by the project are provided in **Table 7-8**.

**Table 7-68      Agricultural land impacted by the project, by class classification**

<b>Agricultural land classification</b>	<b>Directly Impacted (hectares)</b>	<b>Residual land (hectares)</b>	<b>Total (hectares)</b>
<b>Class 2</b>	32	287	319
<b>Class 3</b>	58	487	545
<b>Class 4</b>	10	87	97
<b>Class 5</b>	8	56	64
<b>Total*</b>	108	917	1025

*\* The total area differs to the total area of directly impacted land (by land use) due to the removal of urban land and watercourses, which are excluded from the agricultural classes*

Along Toolijooa Ridge and the Broughton Creek floodplain, six lots that are currently used for grazing or horse agistment purposes would be severed into one or more parcels. A further three properties would be severed from the highway, and two would be impacted by strip acquisition at the rear of the lots as discussed below:

- It is not expected that the strip acquisition at the rear of two properties would result in land uses changes or impact the development potential given the amount of residual land, current land use activity (tourism and grazing) and the land use zoning.
- It is not expected that the strip acquisition along the frontage of two properties would impact on the grazing land uses. However, at one of these properties, the dwelling would be directly impacted by the project.. Consequently, the dwelling entitlement for this property would require relocation within the lot.
- Lot numbers 3, 4, 7, 8 and 9 would be severed from the existing highway. Land use viability and future development potential for agricultural activities would be impacted owing to the size of the residual lots and access issues (refer to **Figure 7-47** and **Table 7-70**). These lots have been acquired by RMS. Amalgamation of these lots or with adjoining properties would be necessary to create holdings which would be viable for grazing or agistment land uses.
- The project would increase the fragmentation of lot number 10 and lot number 11, and parts of the residual land located to the east of the road reserve would be severed from the existing highway (refer to **Figure 7-47** and **Table 7-67**). This has the potential to impact on current and future agricultural land uses. Internal access arrangements for these lots have been identified and incorporated into the project, such as an extension of a cattle pass, access under Broughton Creek bridges and flood stock refuges. These would be negotiated with the landowner during detailed design.

Impacts to the agricultural properties within the rural sections of the project between the Austral Park Road interchange and Schofields Lane intersection would mostly be restricted to strip acquisition along highway frontages resulting in land use severance. Alternative access arrangements have been proposed as part of the project as discussed above.



As the acquisition of agricultural land for around half the properties located along this section of the project represents a small percentage of overall lot size, the impacts to current and future land use would be minimal. However, potential impacts to land use viability and future development potential have been identified for:

- The two lots currently used for turf farming, which would be severed by the bridge at Berry into two parcels. Impacts on a farm dam/billabong at one of the properties would also occur due to the construction of the northern interchange. Alternative access arrangements would be necessary to maintain the viability of the residual parcels. This may include controlled access under the bridge.
- A residual parcel of agricultural land used for grazing (dairy) which would be isolated from the majority of lot number 43. As access cannot be maintained to the small fragmented residual parcel located between North Street and the bypass, acquisition of the land would be required. This lot would have limited development potential as the land is zoned for road preservation purposes under the Shoalhaven LEP. As identified in **Chapter 4** this area would be retained as a buffer in conjunction with excess land acquired by RMS along North Street and options for community uses would be explored during detailed design.

### ***Rural residential properties***

With the exception of three properties (lot numbers 15, 49 and 53), dwellings on rural residential properties would not be directly impacted by the project. However, the project would sever access to the highway for the majority of the properties. Alternative access arrangements to maintain highway access have been proposed as part of this project (refer to Appendix L). The residual lots are unlikely to compromise the ongoing use of these properties for rural-residential purposes. As such, no change in land use is expected for these properties. Where rural-residential properties have been acquired in full, such as those located to the east of the northern interchange to Berry, the residual land that is not needed for the project, would be sold as rural residential properties following the completion of construction with the dwellings retained.

The dwelling at lot number 42 would not be directly impacted by the project. However, a portion of the lot would be acquired for the project, severing a small northern portion. As access would not be maintained to this portion, amalgamation with adjoining land would be required to maintain this land for agricultural purposes. Future development potential is limited given this is part of the riparian corridor for Bundewallah Creek. Should the lot be fully acquired, it would form part of the buffer between North Street and the edge of the project. As such, the land use would change to an open space or recreational use (as an option for the riding club re-configuration). Should this occur, the ultimate land use would be determined in consultation with Shoalhaven City Council.

Where dwellings on rural residential properties would be directly impacted at lot number 49 and lot number 53, the residual parcels would no longer be viable as rural residential purposes and would be sterilised for that use. These lots would either be amalgamated with an adjoining land (lot number 49) or would be utilised for the Town Creek diversion (lot number 53). Subject to detailed design, a residual lot may be created at Lot 15 with the dwelling retained. However, it would unlikely remain viable as a hobby farm and would continue for rural-residential purposes.

### **Urban land**

At the southern interchange, 14 lots would be fully contained within the road reserve and subject to full acquisition. Eleven lots would be partially acquired, which would result in varying sizes of residual land. For the properties that are partially acquired, the impact would occur as a result of:

- Direct impact to a small percentage of the lot numbers 46, 48, 57, 59 and 77, although, the retention of property access would enable the existing land use to continue. One of these properties operates as a bed and breakfast. There may be amenity impacts on these residential properties.
- Due to the size of the residual land parcels, flooding restrictions or loss of road access, six lots would no longer be viable for residential uses (lot numbers 44, 54, 58, 60, 67 and 68). Most of these properties already have restricted development potential due to flooding and are vacant. The residual land ranges from around 100 square metres to 5700 square metres. The six urban lots have or would be acquired in full by the RMS. The future land uses for this land would be determined during detailed design, and most would require consolidation to enable future residential development to satisfy the minimum lot size requirements of the Shoalhaven LEP. Alternatively, options to use the residual land for community uses may be identified as part of the urban design solution for this area.
- At lot number 68, there would also be a temporary change in land use of the currently vacant residential property during construction as it would serve as an ancillary site. The land use of this property, following the completion of construction, would be determined during detailed design (as stated earlier).

### **Open space and other land uses**

Land owned by Shoalhaven City Council would be impacted by strip acquisition (refer to **Table 7-7**). Most of these lots are used for recreational purposes or zoned for open space. The impacts on these lots are discussed below:

- Around 0.3 hectares of land or around six per cent of the Berry sportsground and Camp Quality Memorial Park would be acquired along the northern boundary, which would result in the severance of a small portion of residual land at the northern boundary. The project at this location would comprise a bridge, and would not directly impact any sportsground infrastructure. The loss of around 0.3 hectares of land would not sever the lot from North Street and would not sterilise the use of the remaining area. However, there would be road traffic noise and visual impacts as discussed in **Section 7.2** and **Section 7.6**. The residual land would require amalgamation with adjoining land however it has limited use given it is located within the riparian corridor for Bundewallah Creek.
- Around 1.3 hectares or around 32 per cent of the riding club would be acquired for the project. This would result in the isolation of a small portion of land between the project and Bundewallah Creek, and the demolition of two small buildings. The acquisition of land and the isolation of the northern portion of the lot would have a substantial impact on the club given the loss of training and performance areas. RMS would continue to consult with the club and Shoalhaven City Council during detailed design to identify an appropriate option for the club, which includes the use the adjoining land to re-configure the training and performance areas once safe access can be provided following the construction of the project at this location. The potential uses for the isolated northern portion of the site are limited due to the size of the residual lot and access. This residual lot would require amalgamation with adjoining land to retain some land use activity.
- At Mark Radium Park, around 0.35 hectares or 28 per cent of the park would be acquired along the western boundary of the park. This acquisition would not sever the park from its current road access via Victoria Street. The design of the southern interchange has incorporated retaining walls to minimise the extent of acquisition and potential impacts on the pond. While amenity impacts would occur due to increased road traffic noise and a reduced park area, there would be no impact on the use of the park as discussed in **Section 7.2**.



- An area at Huntingdale Park Estate zoned for open space, which is vacant and nominated for stormwater detention purposes for the Estate, in the order of 0.12 hectares would be acquired and would not impact on the future operation of the basin (located on the adjoining lot). While acquisition represents around 30 per cent of the total lot, a change in land use is not expected as it forms part of a much larger area that has been nominated for open space and landscaping.
- The majority of the lot, owned by Shoalhaven City Council (around 77 per cent) that forms part of Schofields Lane would be impacted (lot number 83). Amalgamation of the entire lot into the road reserve would be considered in consultation with Council as part of detailed design.
- A vacant rural property (lot number 85) would be used during construction. Around 0.64 hectares or two per cent of the total lot would be acquired along the highway frontage with no impact on access.

### *Impacts on dwelling entitlements*

Land acquisition for the project would result in changes to the configuration of impacted property lots or the demolition of existing dwellings.

For properties zoned rural under the Kiama LEP and Shoalhaven LEP, dwellings cannot be constructed on properties that are below 40 hectares, except under certain circumstances and subject to the approval of the relevant council. However, both LEPs provide for the consideration of the potential to relocate dwellings, where they would replace the lost dwelling or entitlement (should a suitable site remain within the lot). This would be the subject of a separate development application and assessment process by the relevant council.

Of the 90 lots impacted by the project, it is estimated that:

- Five rural lots would each be severed into two large parcels of residual land, which would all be below the minimum lot size of 40 hectares. It is noted that these lots are already currently below the minimum lot size. At two of these lots, there would be no provision made to maintain access to a public road for severed portions.
- Two rural lots would have dwellings directly impacted, which may be eligible for relocation within the residual land (subject to a separate approval).
- One rural lot would have the dwelling directly impacted and would be severed into two portions of land that are below the minimum lot size. There would be no external access provided to the severed portion. The dwelling may be eligible for relocation within the residual land (subject to a separate approval).
- Four rural lots would be severed into two portions of land, with the smaller severed lot below the minimum lot size. Internal access would be maintained for two lots only. The remaining two lots would not have development potential due to the remaining size of the severed lot, flooding and lack of access (lot 42 and lot 43).
- The residual land for one rural lot would no longer have development potential due to the size of the created lot (lot 53).
- Two urban lots would be at or above the minimum lot size. However, one lot would no longer have access to a public road (lot 44). The other has limited development potential due to flooding (lot 54).
- Four urban lots are below the minimum lot size, ranging from around 100m<sup>2</sup> to 1400m<sup>2</sup> (lot 58, 60, 67 and 68).

The majority of the lots that would be below the minimum lot size or require amalgamation to retain development potential have been acquired by RMS (for example, Lots 4, 7, 8, 9, 53 and 54). This has been discussed earlier in **Section 7.9.2**.

The remaining 71 lots are either fully impacted by the project (that is, impacted 100 per cent), do not currently have a dwelling, or the dwelling is not directly impacted by the project.

### *Impacts on the urban settlement patterns and future development potential of adjoining land*

As discussed earlier, Berry is the main urban settlement within the project area. The project would not significantly alter the settlement pattern of Berry, with the project generally following the future road corridor identified in the Shoalhaven LEP and the draft Shoalhaven LEP.

The project would remove highway traffic from Queen Street. This would have positive impacts for land uses and internal movements within Berry due to improvements in amenity and local network efficiencies. The design of the two interchanges to the north and south of Berry would maintain the predominant east-west movement along Queen Street, minimising any potential for alterations to the street hierarchy and land use patterns within the centre of Berry.

Loss of highway generated trade as a result of the bypass could have an impact on commercial land uses. However, improvements to the amenity of Queen Street may also create different commercial opportunities, which may change the development potential of the commercial centre of Berry. The potential impacts on the viability of businesses within Berry are discussed in **Section 7.10**.

The project would be unlikely to impact land uses for the adjoining established residential areas along North Street, and it would not separate the majority of the community from the recreational spaces at the sportsground and Camp Quality Memorial Park. However, in areas where the project is at its closest to North Street, increased road traffic noise would be experienced and the project would obstruct the visual connection between Berry and its rural setting generating visual impacts. Noise and visual impacts would affect the amenity of North Street. These issues are discussed in **Section 7.2**, **Section 7.6** and **Section 7.10**.

The project would not alter land uses north of Berry, with development remaining limited due to the land use zoning and flooding constraints. The Berry Riding Club would require reconfiguration or relocation from its current location due to its partial acquisition, as discussed earlier in this section.

Huntingdale Park Estate is still being developed, and the existing highway lies immediately adjacent to the eastern boundary of the Estate. The original planning for this Estate included provision for the highway northbound off-ramp to connect to Huntingdale Park Road. This has not been considered as part of the current design of the southern interchange in favour of the proposal which would separate highway traffic from local traffic, and would enable Huntingdale Park Road to be maintained as a local access road. Hitchcocks Lane would be realigned to connect to Huntingdale Park Road, as the lane would no longer have a junction with the highway. This corridor is similar to what was originally provided for the northbound off-ramp and therefore would not impact on development potential of this Estate.

The traffic and transport assessment for the project demonstrates that the intersections at these locations would have sufficient capacity to cater for highway traffic and the Huntingdale Park Estate development when fully realised (as approved). As such, the project would be unlikely to impact on the future development of the remaining parts of the Estate due to access or traffic. However, it would impact on the amenity of adjoining land uses due to increases in road traffic noise. A four metre noise barrier has been proposed along the northbound off-ramp of the southern interchange to reduce road traffic noise levels as a result of the project. The final height and design of the noise barrier would be determined in consultation with the affected community, which would take into account the visual amenity of the area. Landscaping would also be proposed to minimise the visual impacts on the Estate. Any further development for residential or community purposes within the Estate would need to have consideration to road traffic noise by the relevant consent authority. This is discussed further in **Section 7.2**.



Construction of the approved equestrian centre and associated tourist development has not yet commenced. However, the impacts on this land are limited to a requirement for altered access (that is sympathetic to the heritage of this property access) and strip acquisition along the highway frontage. As such, impacts are likely to be limited to the amenity of the property due to increases in road traffic noise.

The completion of the Arbour is also unlikely to be impacted by the project. The project at this location follows the existing alignment of the highway and the property would not be subject to land acquisition. However, the project would have impacts on the amenity of residences and private open spaces located closest to the project. This is discussed further in **Section 7.2**.

### *Implications for regional land use planning*

The South Coast Regional Strategy and the Illawarra Regional Strategy identify the important role of the Princes Highway in connecting communities, supporting economic development and linking neighbouring regions. The project would assist implementation of both strategies, as discussed in **Chapter 2**, by improving both road safety and efficiency of this main road corridor.

Both strategies recognise the need to protect the rural and agricultural land assets located in the South Coast and Illawarra regions. The project has been designed to minimise impacts on rural and agricultural land by following property boundaries or the existing alignment of the highway wherever possible, to minimise fragmentation of properties. The consideration of the potential impact on agricultural viability is discussed in **Section 7.10**.

Both strategies also recognise the need to protect the environmental and biodiversity assets located in the South Coast and Illawarra regions. The project would impact on the biodiversity corridors and environmental assets identified in the strategies, through native vegetation removal or by creating an additional barrier to fauna movement. The design of the project has minimised, where possible, the extent of vegetation clearance. However, additional mitigation would be required to further minimise and offset the impact on biodiversity values and corridors in the project area (refer to **Section 7.3.4**).

## 7.9.3 Environmental management measures

Mitigation and management measures would be implemented to avoid, minimise or manage impacts to land use and property. These mitigation and management measures are listed in **Table 7-69** and incorporated in the draft statement of commitments in **Chapter 10**.

**Table 7-69 Mitigation and management measures**

Potential impacts	Mitigation and management measures
<b>Construction</b>	
Impacts on traffic and property access	<p>Consult with the affected landowners where temporary property access would be required to maintain property access and internal farm access during construction.</p> <p>Provide property owners with advanced notification of project schedules, construction works and changes to access arrangements.</p> <p>Provide community updates on changes to the local road network within the project area during construction.</p>

Potential impacts	Mitigation and management measures
Loss of agricultural land for use as ancillary sites	<p>Strip and stockpile topsoil during the preparation of these ancillary sites.</p> <p>Reinstate top soils, with any necessary soil improvements, as part of the rehabilitation of these areas for ongoing agricultural use.</p>
<b>Operation</b>	
Loss of property required for the project	<p>Acquire land for the project in accordance with the RMS 'Land Acquisition Information Guide' (RTA, 2011) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i>.</p> <p>During negotiations with landowners, consider acquiring any severed or isolated sections of land where access cannot be reasonably reinstated. Residual land not required for the project would normally be disposed of by public auction or public tender.</p>
Loss of use of land and property access	<p>Complete property adjustments for fencing, access tracks, cattle underpasses and other farm infrastructure in consultation with the affected landowner.</p> <p>Reinstate property accesses that are lost as a result of the project in consultation with affected landowners including any relocated accesses as may be determined further during the detailed design phase of the project.</p> <p>Identify and implement internal access arrangements in consultation with landowners as required to maintain the long term viability of their property.</p>
Permanent loss of agricultural land	<p>Rehabilitate surplus residual land for sale (or transfer of ownership) to offset loss of similar agricultural land.</p> <p>Minimise sterilisation and severance of land uses and lots by amalgamating severed parcels of land together, where possible, with provision for road access.</p> <p>Minimise the creation of lots without dwelling entitlements by amalgamating severed parcels with lots with retained dwellings or selling to adjoining landowners.</p> <p>Consult with the community and Shoalhaven City Council to identify appropriate community uses for residual land located adjacent to North Street and the southern interchange for Berry during detailed design and construction.</p>