

17 Social and economic

This section addresses the social and economic impacts of the proposed upgrade in accordance with the environmental assessment requirements listed below. More detail is provided in *Working Paper 10 – Social and Economic Assessment*.

Environmental assessment requirement	Where addressed
> Local community socio-economic impacts associated with land use, property and amenity related changes.	Section 17.3.2, 17.3.3, 17.3.4 and 17.3.5.
> Business (including agricultural producers) impacts on a case by case basis including impacts to the overall viability, profitability, productivity and sustainability of businesses	Section 17.3.1
> Regional economic impacts to the agricultural sector taking into account the total loss of regional and State Significant farmland as identified in the Northern Rivers Farmland Protection Project (Department of Planning, February 2005).	Section 17.3.6 (impacts to agricultural activities are discussed in Chapter 14).
> Regional economic impacts to the tourism sector taking into account agri-tourism impacts and impacts to local amenity, character and scenery.	Section 17.3.8

Also addressed in this section are some Director General's Requirements that are under the heading of *land use and property*. These include:

- > Impacts to the connectivity and contiguity of small settlements including Newrybar and Knockrow (addressed in **Section 17.3.4**).
- > Consideration of project impacts on the attainment of the Far North Coast Strategy (addressed in **Section 17.3.6**).

17.1 Assessment approach

A detailed social and economic assessment *Working Paper 10 – Social and Economic Assessment* was undertaken by Arup and Hassall and Associates as part of the preparation of this environmental assessment. The results of this assessment are discussed in this chapter.

Social impacts have been defined by the NSW Office of Social Policy (1995) as significant events experienced by people as changes in one or all of the following:

- > People's way of life – how they live, work, play and interact with one another on a day to day basis.
- > Their culture – shared beliefs, customs and values.
- > Their community – its cohesion, stability, character, services and facilities.

An analysis of the social impacts and changes likely to occur as a result of the proposed upgrade has been undertaken in regard to the methodology established by the NSW Department of Urban Affairs and Planning's (now Department of Planning) *Environmental Impact Statement guidelines*. No specific guidelines have been developed for Environmental Assessments under Part 3A of the *Environmental Planning and Assessment Act*.

Economic impacts on the agricultural sector and adjacent businesses were measured in terms of the change in regional income (or gross regional product). Qualitative assessment has also been made as to the nature of impacts on different types of businesses and the broader effect of the proposed upgrade on the tourism industry in the area.

17.2 Existing social and economic profile

The local community includes the townships of Bangalow, Newrybar, Ewingsdale and Knockrow, and people living on surrounding rural properties. It is a diverse mix of people including families who have been in the area for generations as well as more recent arrivals that have come to the area for commercial and/or lifestyle reasons. There is a strong interest in both environmental and development issues in the region. The interface between the two areas of interest, coupled with increasing property prices and a desire to protect and enhance the existing high levels of amenity, has resulted in a local population that is very involved in local matters.

Ballina and Byron shires are both experiencing population growth. For the period 1991 to 2001, Ballina and Byron shires respectively experienced 2.14 percent and 2.86 percent annual compound population growth respectively. Between the 1996 and 2001 censuses, Ballina and Byron shires' population growth was 7.3 percent and 9.7 percent respectively. Major economic activities in the immediate vicinity of the proposed upgrade are agricultural and agricultural related processing. They include:

- > Beef cattle.
- > Macadamias.
- > Coffee.
- > Stone fruit.
- > Sugar.

Approximately 1 in 8 working people on the North Coast are employed in primary production (NSW Department of Primary Industries 2006). The North Coast region is defined by NSW Department of Primary Industries as all of the Tweed, Brunswick, Richmond, Bellinger, and Nambucca catchments, most of the Hastings catchment and large parts of Clarence and Macleay catchments. It also comprises the eastern half of the Northern Rivers Catchment Management Area, which extends westward across the New England Tableland to the Great Divide. Farm gate value of agricultural production on the North Coast is in excess of \$1 billion per annum, rising to about \$2 billion when processing is included, particularly in the agricultural and forest industries (NSW Department of Primary Industries 2006).

Tourism is a major industry in a regional sense with the local area playing a role in terms of its contribution to the scenic landscape, provision of access, and provision of some specific tourist related businesses. According to data produced by Tourism NSW (2007) for the Northern Rivers region, for the year ending December 2007 the total number of visitors to the area was 4.7 million. Total expenditure from tourism for this time period was more



The main street of Newrybar

than \$1 billion. The Northern Rivers Tourism Plan identified that 85 percent of visitors to the region are domestic, and 86 percent of visitors travel to the region by car. The region also attracts the second highest number of international visitors in NSW. There are a range of accommodation options including resorts, bed and breakfasts, hotels, hostels and camping grounds.

17.3 Social and economic impacts

17.3.1 Impacts on local businesses

Impacts of the upgrade on the viability, profitability, productivity and sustainability of directly affected non-agricultural businesses would reflect the change in the physical operating environment (accessibility, visibility and operating amenity) and disruption of patronage (be it from through traffic on the existing highway, local patronage or whether the town or village is a 'destination' in its own right). Furthermore, those impacts would vary between the short term (during construction and adjustment within the local community) and the long term (as accessibility, visibility and operating amenity impacts become fully embedded).

The types of impacts on local non-agricultural businesses include:

- > Accessibility.
- > Visibility.
- > Operating amenity.

These different impacts are discussed below in terms of impacts on businesses at Newrybar, Knockrow and Ballina.



The Macadamia Castle currently has direct access onto the existing Pacific Highway.

Accessibility

Accessibility to business enterprises relates to the ease that potential patrons can gain access to the businesses within the proposed upgrade area.

Some disruption to local and through traffic would be expected during the construction period. Traffic disruptions would potentially affect businesses at either Newrybar, Knockrow or Bangalow, however the overall impact on businesses would be expected to be minor due to the anticipated short duration of disruptions.

During operation, business enterprises with links to passing highway trade would be potentially subject to adverse effects as a result of the relocation of the highway and more restricted access that would result. The main potential impact in this regard is at Knockrow, where a proportion of the business received by the Macadamia

Castle is related to its easy accessibility from the highway. Passing highway traffic is less important to businesses in Newrybar and Bangalow (although it is acknowledged that some business activity occurs in these locations from highway users stopping for a rest and/or refreshment). Access arrangements for patrons of these businesses (other than

passing highway traffic) would change due to local road reconfiguration, however it would be expected that access for local patrons would generally be easier.

Visibility

Visibility to passing traffic is important to some businesses, particularly any that are reliant on passing trade (as discussed above). Businesses in Newrybar and Bangalow currently have very limited visibility from the highway, other than signs indicating the presence of each town. The Macadamia Castle at Knockrow however, is highly visible from the existing highway. The facility would not be visible from the proposed upgrade, which may have some impact on patronage, but may be able to be mitigated through appropriate signage.

Construction would not be expected to impact on the visibility of businesses in the area.

Operating amenity

The proposed upgrade may affect the amenity of the townships by having an influence on the noise environment, air and visual quality.

The amenity of Newrybar is expected to be improved during the operational phase of the proposed upgrade. Reduced noise and improved safety associated with the lower traffic volumes on the existing highway are likely to enhance Newrybar's role as a destination village for tourists and to complement the types of businesses that currently occur in the town.

Amenity in Knockrow (at the Macadamia Castle) would also be improved, both in terms of noise and safety. This improved amenity would be beneficial to many of the components of this business, which has both outdoor and indoor activities and facilities.

The impact on Bangalow businesses' operating amenity would be likely to be minimal as it is currently bypassed by the existing highway and this would continue for the proposed upgrade.

Amenity may be reduced when construction is occurring in close proximity to businesses, particularly in terms of noise. Businesses in Newrybar are the most likely to experience amenity related impacts during construction. Construction activities would be approximately 500 metres from the centre of Newrybar when construction is at its closest point potentially resulting in minor impacts on business activities that are dependent on amenity.

An additional short term influence on businesses in the area would be revenue generated directly by construction workers. Businesses (particularly food outlets) in Newrybar and Bangalow are likely to benefit from this expenditure during the construction period, with the greatest benefit occurring when construction is occurring in close proximity to the respective town centres.

An overall assessment of the above factors is shown in **Table 17.1**.

Table 17.1 - Summary of business impacts in adjacent towns and villages

Town or Village	Businesses	Short Term Impacts	Long Term Impacts
Bangalow	<ul style="list-style-type: none"> > Gift Shop > Mixed emporium > Service Station > Patisserie > Cafés > Hotel > Guest House and other accommodation > Various other general retail businesses 	<ul style="list-style-type: none"> > Neutral > Some potential minor accessibility impacts. Some businesses would benefit from likely expenditure by construction workers. 	<ul style="list-style-type: none"> > Neutral > No long term impacts anticipated.
Newrybar	<ul style="list-style-type: none"> > General Store > Harvest Café > Newrybar Gallery > Camphor Cottage > Newrybar Saddlery and Produce > Country House Antiques 	<ul style="list-style-type: none"> > Negative > Business is evenly mixed between local and tourism expenditure. Reduced connectivity is expected during construction. 	<ul style="list-style-type: none"> > Positive > Ultimately improved amenity for a 'destination' village should offset connectivity impacts.
Knockrow	<ul style="list-style-type: none"> > Macadamia Castle 	<ul style="list-style-type: none"> > Negative > Business is dominated by existing highway related trade. Potential amenity and access impacts during construction. 	<ul style="list-style-type: none"> > Neutral > Although less exposure, positive impacts are expected owing to improved amenity and safer access.

The proposed upgrade would be expected to have some short term negative impacts on businesses located in Newrybar and Knockrow (Macadamia Castle) but should be neutral or positive over the long term.

Short term negative impacts in Newrybar and Knockrow would affect profitability of businesses and, if they are highly leveraged or otherwise financially vulnerable, their short term viability. However, over the long term, the net impacts of the highway upgrade are expected to be neutral to positive for the local trading environment in all three centres. This should, on balance, benefit the value of affected businesses by increasing profitability and productivity, and therefore their viability and sustainability.

17.3.2 Social impacts of land acquisition

During the route selection process, there was a great deal of concern in the community over the uncertainty of which alignment would ultimately be chosen, particularly amongst those residents who were not already in proximity to the existing highway (identified as

newly affected dwellings and included a number on the plateau and coastal plains). As the proposed upgrade would follow the existing highway relatively closely, the number of newly affected dwellings is minimised.

There are, however, a total of 73 lots that would be directly affected by the proposed upgrade (in some cases the landholder owns more than one allotment), with a total of 22 houses within the proposed upgrade footprint. Consultation has been undertaken by the RTA with all directly affected landowners. The acquisition negotiation process and determination of compensation, is governed by the RTA's *Land Acquisition Policy* (Appendix B) and the *Land Acquisition (Just Terms Compensation) Act 1991* respectively.

Throughout the options development and route selection process, and more recently during discussions with landowners, the RTA has developed an understanding of the typical concerns of landowners directly affected by the proposed upgrade in relation to property acquisition. The socio-economic impacts of property acquisition expressed by the community are listed as follows with a commentary on the likely impact.

Limited number of properties to choose from in the area

Owing to the low density form of residential accommodation, there are limited numbers of properties within the proposed upgraded area. The expected decline in housing stock (22 dwellings are within the proposed upgrade footprint) would affect the ability of residents to find a suitable (and perhaps similar) property in the area, particularly with net migration growth pressures.

Loss of local connections and community cohesion

Community involvement is a defining characteristic of many of the residents in the Ballina and Byron local government areas. Loss of connections and community cohesion would be a particular issue for those who relocate outside of the area. It is presently unknown what proportion of those who would have their dwelling acquired would stay within the locale or relocate elsewhere. For those who retain their building entitlement and construct away from the proposed upgrade on the remainder of the allotment, social networks would be sustained.

Impacts on health and wellbeing owing to the possible upheaval of roots.

For many residents within the proposed upgrade area, impacts on health and wellbeing were associated with the uncertainty of which route would become the preferred option and the potential for it to result in the acquisition of their property. Negative impacts on health and wellbeing could potentially be experienced by those facing property acquisition.

17.3.3 Impacts on community services and facilities

The proposed upgrade would not result in the loss of any existing community services or facilities. The only existing community facility that may be adversely affected is the Newrybar Public School, which is located approximately 300 metres north east of the village.

The proposed upgrade runs adjacent to the school's eastern boundary. At this location, however, the proposed upgrade would be much lower than the school. Although there is a perception amongst some members of the community that the school would be isolated between the new alignment and the old highway, it is unlikely the proposed upgrade would impede the access of staff and students. As the proposed upgrade would

run below Broken Head Road (which would form an overpass), current accessibility along its primary frontage would be maintained.

The school's connection to Newrybar village is likely to be improved after the highway is upgraded as the existing highway would have:

- > A significant reduction in traffic volumes.
- > Greater consistency in driver behaviour with the separation of high speed through highway traffic and lower speed local traffic.
- > A reduction in the percentage and size of heavy vehicles.

It is anticipated that access would be improved to other community facilities, such as Newrybar Hall and facilities in Bangalow through improved efficiencies and safety in the local road network.

More generally, throughout the upgraded highway area it is likely that during construction, access to the towns and villages in which other community facilities are located may be hindered during specific periods.

17.3.4 Impacts on connectivity and contiguity

With any linear infrastructure project, there is the potential to create severance and impede the ability of residents to traverse through an area, by the creation of a physical and /or psychological barrier. The existing Pacific Highway forms an edge in some instances to settlement areas and concentrates movement in a north – south direction.

Connectivity and contiguity would be largely maintained throughout the area through the various access arrangements described in **Chapter 13**. Where access to the existing highway would be altered as a result of the proposed upgrade, new local roads would provide a connection to the existing highway and then the interchanges. In some cases, this may slightly result in slightly longer travel times for drivers who would have to follow the modified local road network to reach interchanges or crossing points of the proposed upgrade. Some residents on the western side of the proposed upgrade in the vicinity of Knockrow for example would have longer distances to travel to access the existing highway as they would need to travel on a new service road to reach a proposed underpass that would connect them to the existing highway.

In some areas road access would be improved. Access to Newrybar for local road users for example, would generally be easier with crossings of the proposed upgrade at Broken Head Road and Watsons Lane, and significantly reduced traffic volumes on the existing highway.

Community severance would be limited as the proposed upgrade avoids the settlements (that is, the villages and towns with relatively closely settled rural properties on the fringes). The settlement areas of both Knockrow and Newrybar are not directly affected. The addition of the proposed upgrade into the rural landscape is likely however, to create some perception of severance among rural residents. While physical access would be maintained, rural residents on one side of the proposed upgrade may feel less connected to settlements or rural residents on the opposite side. Integration of the highway into the landscape (refer to **Chapter 18**), as well as appropriate access arrangements, would assist in minimising this perception.

Travel on the proposed upgrade would be faster and safer than the existing highway and changes to the local road network would create safer local travel conditions.

Disruptions to access on the local road network and the existing Pacific Highway would occur at times during the construction period. This is most likely to occur where the proposed upgrade would cross the existing highway or other local roads such as Broken Head Road, Watsons Lane and Bangalow Road. Alternative access would always be provided for any lengthy access restrictions. Traffic impacts during construction are also discussed in **Section 13.4.7**.

17.3.5 Impacts on amenity and safety

Impacts on amenity generally relate to noise, visual impacts and air quality of the proposed upgrade. These are discussed separately in **Chapters 15, 18 and 19** respectively. The effect of the proposed upgrade on road safety is discussed in **Chapter 13**.

17.3.6 Impacts on local and regional growth

Potential impacts on the region's future growth (with reference to the Department of Planning's *Far North Coast Regional Strategy*) are examined in consideration of the impacts of the proposed upgrade not proceeding and socio-economic impacts of the upgraded highway on growth targets.

An efficient, safe and reliable transport system is one of the key elements in the encouragement and support of regional population growth and economic development. The Pacific Highway is the most significant transport infrastructure element between Newcastle and Brisbane and it is an important contributor to the continued economic development of the NSW North Coast region. If the highway is not upgraded to provide an appropriate level of service for existing and forecast traffic volumes, it is likely that:

- > Inefficiencies and cost increases would be experienced by existing businesses, agriculture, tourism and residents.
- > The attractiveness of these regions for new economic development would reduce in response to diminishing road transport services.

Upgrading the Pacific Highway to a dual carriageway standard is an integral part of, and would assist in the attainment of the Far North Coast Regional Strategy. Improvements to the road corridor will provide greater transport efficiency and safety for residents, and for intra-regional and interstate movements. The proposed upgrade would continue the role of the Pacific Highway Upgrade Program in increasing the accessibility of the region, which would in turn provide benefits for tourism as described in **Section 17.3.8**.

Implementation of the proposed upgrade, along with the Ballina bypass, would also improve the safety and efficiency of the connection between Ballina's regional airport and Byron Bay and surrounds. These areas are major tourist attractions that are served in part by Ballina's regional airport.

As illustrated within the Far North Coast Regional Strategy, the existing Pacific Highway demarcates the coastal areas in the east with the environmental assets, rural land, national parks and state forests in the west in the local government areas of Ballina and Byron. The proposed upgrade maintains this general alignment. It would avoid existing urban footprints

as well as proposed future urban release areas and therefore not act as a physical barrier to urban growth. Indeed, the provision of the proposed upgrade, cumulatively with other sections of the Pacific Highway Upgrade Program, would be likely to contribute to further urban growth through improvements in accessibility.

17.3.7 Impacts on agricultural production

The agricultural sector is subject to negative impacts arising from foregone production on land resumed or isolated by the proposed upgrade. Regional economic impacts to the agricultural sector, taking into account the total loss of regional and state significant farmland as identified in the Northern Rivers Farmland Protection Project (DIPNR and DPI), are considered in this section.

Total gross regional product in Byron-Ballina is expected to fall by less than 0.5 percent as a result of foregone agricultural production land. The impact of the proposed upgrade on the availability on state significant farmland (as identified by the DIPNR and DPI (2005)) would be minor (**Figure 14.2**). It is estimated that less than 1 percent of the total area of identified state significant farmland currently available in the Northern Rivers would be lost to the proposed upgrade. The area of state significant farmland that would be lost to the proposed upgrade is currently used for grazing purposes. Indirect impacts are unlikely as it would be the western edge that is lost, with no resulting severance/sterilisation effects.

In determining the foregone production of agricultural land due to direct and indirect (severance) impacts of the upgraded highway, each affected lot was assessed on an individual basis. It was assumed that pre-construction conditions would be restored for drainage and services, however, access to the lot may be altered. The foregone gross margin was calculated for those land uses classified as agricultural land. That is, the annual value of farm gate production less any variable costs incurred in the process of production.

Foregone annual production from agricultural land directly and indirectly affected by the proposed upgrade is shown in **Table 17.2**. The net present value of a stream of foregone production over 30 years is also presented using three discount rates. The levels of foregone production assume that there would not be any beneficial development of low intensity land use following the construction of the upgrade.

Table 17.2 - Foregone agricultural production

Impact	Foregone value of annual agricultural gross margin ¹ (\$'000)	Net Present Values (over 30 years)		
		(\$'000)		
		4 %	7 %	10 %
Directly affected	\$454	\$8,200	\$6,000	\$4,700
Indirectly affected	\$241	\$4,300	\$3,300	\$2,500
Total	\$695	\$12,500	\$9,200	\$7,200

¹ A 'gross margin' can be defined as the gross income from an enterprise less the variable costs incurred in achieving it. Variable costs are those costs directly attributable to an enterprise and which vary in proportion to the size of an enterprise. A gross margin is not profit because it does not include fixed or overhead costs such as depreciation, interest payments, rates and permanent labour, which have to be met regardless of enterprise size (NSW Department of Primary Industries - <http://www.dpi.nsw.gov.au/agriculture/farm-business/budgets/about/intro>).

A flow-on effect from the loss of agricultural land is the potential loss of associated processing activity that is, the value of processing and adapting the raw produce for consumption/further processing. A local coffee processor has stated that the loss of prime land has the potential to affect future export orders through disrupted supply and potential loss of the clean green image. This was raised in discussions with three local business owners who stated that buyers visited the local farms to view local product. When visiting, the buyers stated that the image was very important in the selection of the product for market and this was a key differentiator of the Ballina / Byron area to other areas nationally and internationally.

17.3.8 Impacts on tourism

At a regional scale, the proposed upgrade would continue the role of the Pacific Highway Upgrade Program in increasing the accessibility of the region. The proposed upgrade would complete a continuous dual carriageway link between Brisbane and Ballina, which would be expected to continue the trend of increased visitation to the area from south-east Queensland. The Ballina area is likely to be the main beneficiary of this increased accessibility.

The proposed upgrade is expected to benefit the expanding self drive (touring by car) tourist market. In addition to the improved regional accessibility noted above, it would contribute to a more unified and coherent local road network by removing through traffic from the existing highway. The existing highway would become instead an important element in the local network, enabling the touring by car across the area without the current impediment of the need to cross a busy major highway.

Interchanges on the proposed upgrade would provide ease of access to the local road system, while cross accesses would improve connectivity for touring between areas to the east and west of the proposed upgrade.

Together, these features of the proposed upgrade would enhance the self drive experience throughout the local area and scenic hinterland.

Opportunities would be provided for local authorities to introduce or expand tourist sign posting and tourist routes, utilising the improved local road network and connectivity. The opportunity for local villages (particularly Newrybar and Bangalow) to fulfil more of a tourist destination function would also be strengthened.

As noted in **Chapter 18**, the proposed upgrade would have substantial visual impacts. While these would be managed through an urban and landscape strategic concept, the introduction of a new large item of road infrastructure into the landscape would of itself affect the visual experience of the self drive tourist. However, given the design features of the proposed upgrade and the substantial benefits to self drive tourism likely to result from the more unified and coherent local road network, these negative impacts are expected to be minimal in relation to the overall positive impact on tourism.

Benefits are expected to occur both as a direct result of improvements and opportunities attending the introduction of the proposed upgrade; and in a cumulative, regional sense in conjunction with overall improvements in access arising from the Pacific Highway Upgrade Program.

The proposed upgrade may cause interruptions to traffic during construction, especially during peak holiday times. Traffic management would focus on avoidance of disruption at these times in particular. The impact on tourism is likely to be minimal, with decisions on visiting the area and region being made in response to its positive attractions rather than concerns about short term interruptions to through travel.

17.4 Management of impacts

Social impacts of the proposed upgrade have been minimised through the route selection for the project and in the concept design. Road access would be maintained to all residents through a system of access roads, interchanges, underpasses and overpasses. During construction, access would be managed through a traffic management measures which would be aimed at minimising disruption to local traffic. Management of noise, visual and air quality amenity impacts are discussed in **Chapters 15, 18 and 19**.

During construction, access and signage requirements for businesses would be taken into account in construction traffic management. Detailed design of the proposed upgrade would consider the signage and visibility requirements for individual businesses and groups of businesses. Refer to **Chapter 14** for more information on the management if impacts on agricultural activities.