14 Land use and property

This chapter outlines the potential impacts of the proposed upgrade on properties and land uses in the vicinity of the proposed upgrade according to the environmental assessment requirements listed below. More detail is provided in *Working Paper 7 – Land use and property assessment*.

Environmental assessment requirement		Where addressed
>	Impacts to directly-affected properties and land uses adjacent to the project, including: impacts to land use viability and future development potential, including property title impacts; land sterilisation and severance impacts; and impacts to the connectivity and contiguity of small settlements including Newrybar and Knockrow;	Section 14.2 (note however that issues relating to connectivity and contiguity of small settlements are addressed in Chapter 17 – Social and Economic).
>	Consideration of project impacts on the attainment of the objectives of Far North Coast Strategy;	Addressed in Chapter 17 – Social and Economic).
>	Development of a mitigation strategy aimed at promoting appropriate final land uses on lands subject to partial or full acquisition as a result of the project, in consultation with Ballina and Byron Shire councils.	Section 14.3

14.1 Assessment approach



Grazing land in the Tinderbox Creek valley.

Impacts on land use were based on an assessment of each affected allotment (allotments requiring full or partial acquisition) by the proposed upgrade. For each allotment, investigations were conducted on both the land within the proposed road reserve and the remnant (severed) portion(s) of the lot that lie outside the proposed road reserve to determine the change to the land use that would be likely to occur.

Land that would be within the road reserve is categorised as directly affected, while portions of acquired allotments that would ultimately be outside the road reserve are categorised as indirectly affected. Information is presented in **Section 14.3** in a manner that enables the identification of project impacts resulting from the evaluation of individual property impacts. Principles to guide the management of indirectly affected (or remnant) land were also identified.

14.2 Existing land use

The proposed upgrade would traverse predominantly agricultural land uses consisting mostly of grazing and crops such as macadamias and coffee. Land use on properties that would be affected by the proposed upgrade is shown on **Table 14.1.** The land use types used in Figure 14.1 are described in Table 14.1. Each land use type is grouped into a broad category, which is applied in the assessment of land use impacts in subsequent sections.

The proposed upgrade for the most part traverses land classified under the Northern Rivers Farmland Protection Project (DIPNR 2005) as Regionally Significant Farmland. In one location (between Newrybar and Bangalow) it coincides with the western extremity of an area identified as State Significant Farmland (Figure 14.2).



Typical macadamia farm

Table 14.1 - Land use classes and categories

		Land use category
Access roads	Includes driveways to house but does not include roads within or between paddocks.	Farm infrastructure
Cleared and cultivated	Land that has been cropped annually or has been prepared for permanent planting, but is not yet planted.	Agricultural land
Coffee immature	Coffee plantations planted in or after 2000.	Agricultural land
Coffee mature	Coffee plantations planted before 2000. (note that no mature coffee occurs on allotments that would be subject to acquisition).	Agricultural land
Floriculture	Land used for cut flower production.	Agricultural land
Grazing	Grazing land.	Agricultural land
House block	House and garden area on larger lots, including pool, tennis courts and garages.	Farm infrastructure
Macadamias immature	Macadamia plantations planted in or after 2000.	Agricultural land
Macadamias mature	Macadamia plantations planted before 2000.	Agricultural land
Nursery	Land used for nursery production, including in-ground nursery plantations and fisheries activities.	Agricultural land
Other fruits	Fruits including avocados, passion fruit, lychees, custard apples, guava, berries, tamarillos, bananas, exotic fruits and pecans. Excludes stone fruits.	Agricultural land
Rural residential	Lots less than 3 hectares with a residence.	Rural residential
Sheds	Sheds including animal shelters, processing facilities, machinery and storage sheds.	Farm infrastructure
Stone fruit	Stone fruits including peaches, nectarines and plums.	Agricultural land
Timber	Remnant native vegetation and planted vegetation.	Natural areas
Timber plantation	Planted timber with harvest guarantee.	Agricultural land
Vegetables	Market gardens including bamboo plantations, excluding home vegetable plots.	Agricultural land
Water course - cleared	Rivers and creeks on grazing land.	Agricultural land
Water course - timbered	Rivers and creeks timbered.	Natural areas
Water supply	Dams.	Farm infrastructure

Land use and property impacts

A total of 73 lots would be affected (subject to acquisition and incorporation into the road reserve) by the proposed highway upgrade. Of the 73 lots, six would be captured entirely within the road reserve, 39 lots would be severed with one parcel of land remaining and 28 lots would be severed into two unjoined parcels of land.

The area of land directly and indirectly affected by the proposed upgrade is presented in **Table 14.2.**

Figure 14.1a - Land use on affected properties

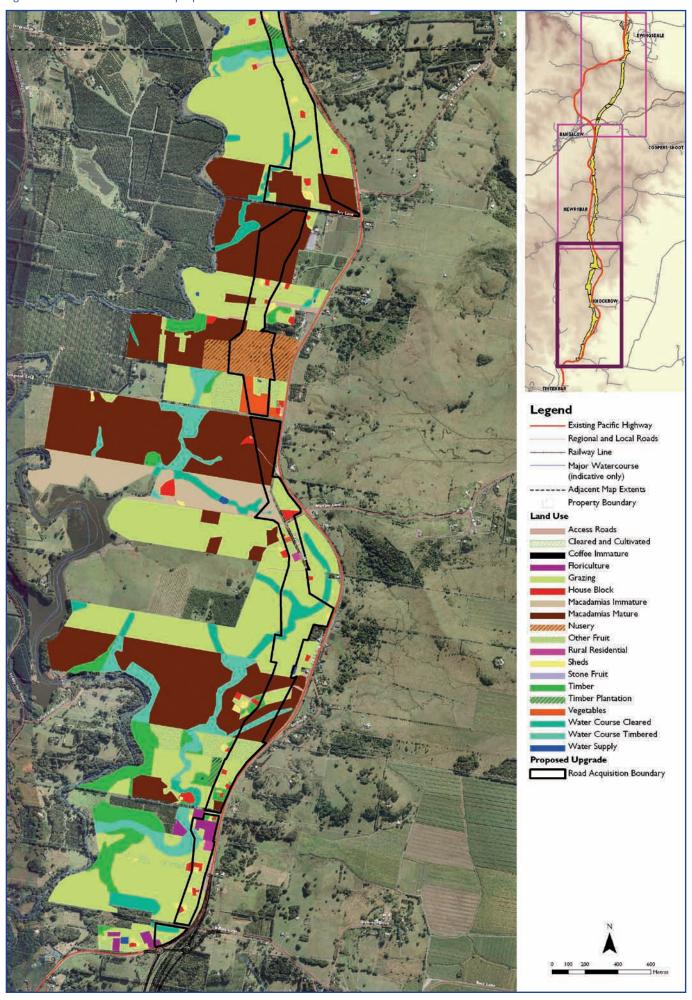


Figure 14.1b - Land use on affected properties

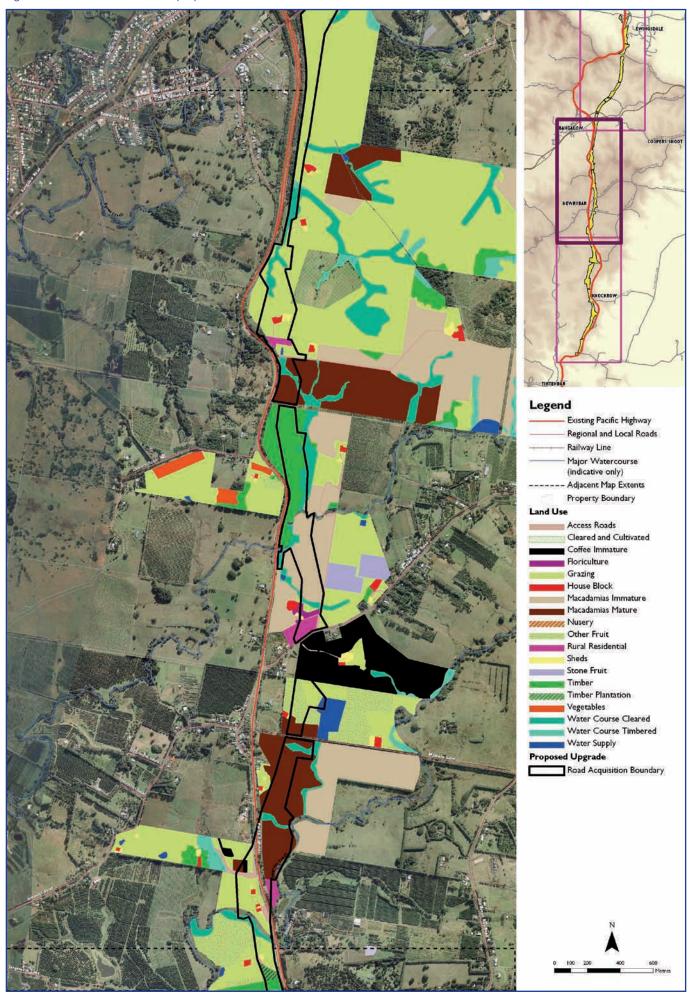


Figure 14.1c - Land use on affected properties

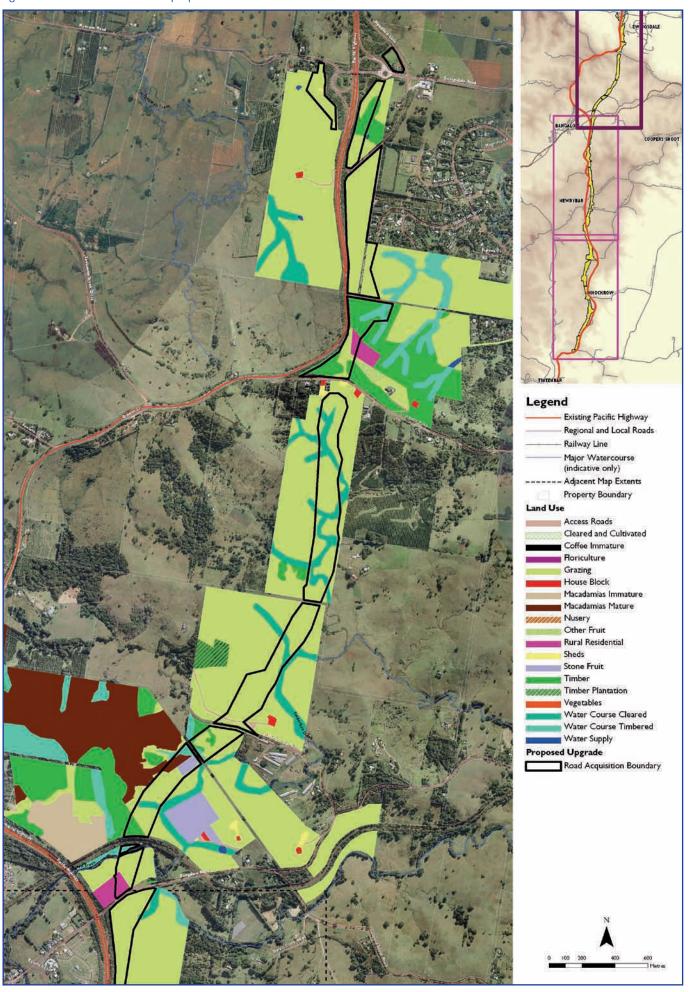


Figure 14.2 State and regionally significant farmland

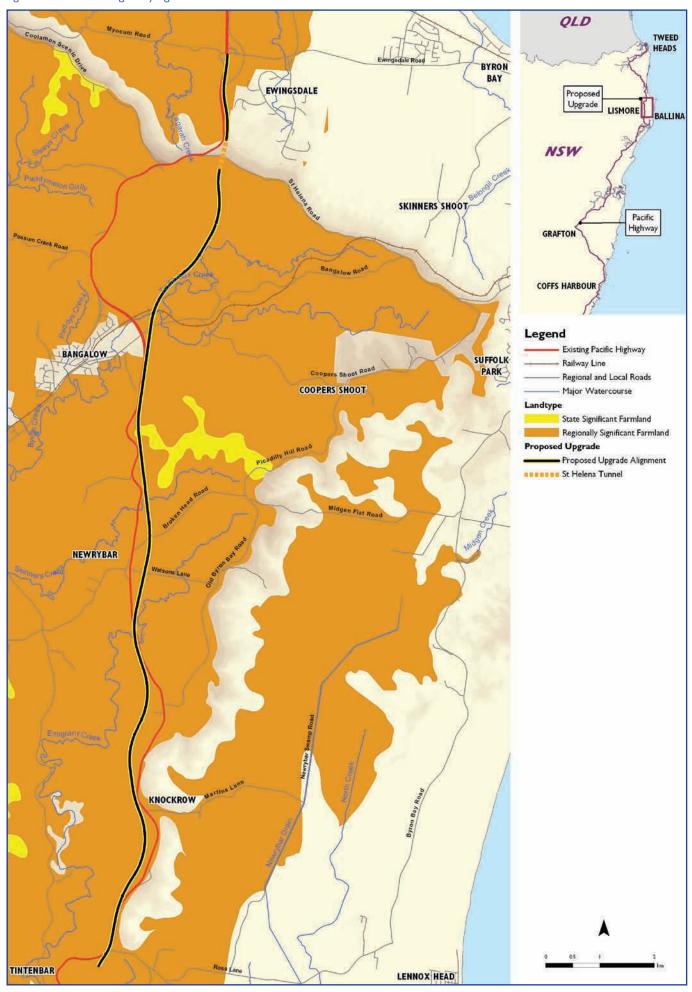


Table 14.2 - Area of land directly and indirectly affected by proposed upgrade (ha)

Description ¹	Directly affected	Indirectly affected	Total affected
Agricultural land	197	998	1195
Natural areas	21	139	160
Farm infrastructure	7	25	32
Rural residential	4	4	8
Total	229	1166	1395

I Based on 2005 aerial photography, landowner surveys and on-site verification undertaken by Hassall & Associates.

14.3 Land use and property impacts

14.3.1 Impact on agricultural land

The proposed upgrade would affect local agricultural production. One of the determining factors in assessing the value of the impacts is the capability of the land to support particular agricultural activities. The impacts would be greater where land is supporting intensive activities compared to land supporting extensive livestock grazing. The economic value of foregone agricultural production is discussed in **Section 17.3.7.**

It is estimated that less than I 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. The presence of state significant farmland was an important consideration in the route selection process.

As well as direct land loss, agricultural production may be affected by losses in production related infrastructure, altered drainage and access, and forced changes to management.

Table 14.3 shows the areas of agricultural land, by land use class, directly affected by the proposed upgrade.

Table 14.3 - Agricultural activities directly affected by the proposed upgrade (by land use class)

Land use	Area affected (ha)
Grazing	111.7
Macadamias mature	37.6
Water course – cleared	17.2
Macadamias immature	7.9
Nursery	7.1
Other fruit	6.9
Coffee immature	3.1
Vegetables	2.2
Cut flowers	1.9
Stone fruit	0.8
Timber plantation	0.7
Cleared and cultivated	0.1
Total	197.2

Each parcel of indirectly affected land (the remnant portion of allotments acquired for the proposed upgrade but not to be included in the road reserve) was evaluated to determine the most likely and appropriate land use after the construction of the proposed land. For the most part, land uses on indirectly affected agricultural land would not be expected to change. Changes in agricultural land use have however been predicted where the size and/or configuration of the remaining portion of land suggests it is impractical to maintain the existing activity after the road reserve has been created. Generally, this manifests in a change to grazing from a more intensive use such as macadamias because the remnant portion of land is too small for the intense use to continue. **Table 14.4** shows the impacts of the proposed upgrade on indirectly affected land.

Table 14.4 - Indirect land use impacts

Description	
Remain in current land use	966.5
Change in agricultural land use	13.5
Potential conversion to revegetation or riparian restoration	17.8
Total	997.8

The impacts on existing agricultural activities are likely to be greater along the southern and central portions of the proposed upgrade. In these areas, there is a greater proportion of macadamia plantations, and it is where the majority of the 13.5 ha of land use change identified in **Table 14.4**, would occur.

Direct impacts on farm infrastructure (particularly sheds) would also tend to occur to a greater extent along the southern parts of the proposed upgrade. In this area, the proposed upgrade is in close proximity to the existing highway. Farm infrastructure is often located close to the existing highway due to ease of access and in a number of locations occurs within the proposed road reserve.

Some opportunities have also been identified for conversion of land to create a vegetative buffer or to undertake riparian restoration, primarily in situations where agricultural viability is limited and positive ecological and/or landscape outcomes may be achieved. The ultimate creation of these areas would be subject to agreement between the RTA and local authorities as to the most appropriate ownership and management regime.

14.3.2 Loss of dwelling entitlements

A major concern for the landholders affected by the proposed upgrade is the impact on dwelling entitlements where the proposed upgrade would remove a house on an allotment. Both Ballina Shire and Byron Shire councils have indicated that relocation of dwelling entitlements within the same allotment would be potentially permissible when they are directly affected by the proposed upgrade (pending the availability of a suitable site for relocation). If there is no suitable house relocation site, the dwelling entitlement would be cancelled and the residual parcel of land may be consumed by boundary adjustment either with an adjoining parcel of land or into the road reserve. Landowners subject to cancellation of dwelling entitlements would be entitle to compensation under the Land Acquisition (Just Terms Compensation) Act 1991, which reflects the loss of the dwelling entitlement.

For both councils, the application for relocating a dwelling entitlement needs to consider many factors including but not limited to access, land use conflict, on-site effluent management, contamination and noise impact from the adjoining highway.

After consideration of the local environmental plans and remnant land characteristics it is estimated that:

- > 15 lots may have their dwelling entitlement cancelled.
- > 3 lots may have one of two dwelling entitlements cancelled.
- > 8 lots may be eligible to have their dwelling entitlement relocated.
- > I lot may be eligible to have one of its two dwelling entitlements relocated.
- > 46 lots would not have their dwelling entitlements affected.

14.4 Management of impacts

A remnant land strategy has been prepared in consultation with Ballina Shire and Byron Shire Councils, for the proposed upgrade and is included in Working Paper 7 - Land use and property assessment. In relation to land acquisition, one of the following two options would generally be adopted (in consultation with landowners) to arrive at a desirable remnant land management outcome:

- > Full purchase of the allotment to meet the RTA requirement for the proposed upgrade or where the remnant portion would not be commercially viable.
- > Partial purchase of the allotment to meet the RTA requirements that when met leaves remnant land that has commercial use either as an entity or as a desirable addition to a neighbouring lot or has the potential to contribute to revegetation and riparian restoration.

The above principles have formed the basis of the individual lot analysis which is summarised in **Table 14.4.**

The process of acquisition would involve purchase by the RTA in accordance with provisions of the Land Acquisition (Just Terms Compensation) Act 1991.

In terms of the final use of land acquired by the RTA but not required for the proposed upgrade, the following range of outcomes would be promoted:

- > Amalgamation with adjacent properties to protect existing land use and to provide increased opportunity for enhanced land use.
- > Sale where remnant land is capable of being operated in an economically sustainable
- > Establishment of vegetative buffers between agricultural land uses and the proposed upgrade in any situations where landscape treatments in the road reserve do not provide adequate buffer.
- > Undertaking riparian restoration where properties include a watercourse.
- > Promotion of existing environmental programs including Emigrant Creek Healthy Catchment program and Byron Council High Conservation Areas.
- > Consult with affected residents to create awareness of Councils' procedures for dwelling entitlement retention, relocation and/or cancellation.