

13 Non-Aboriginal heritage

This chapter describes the process undertaken in identifying non-Aboriginal cultural sites and items within the study area and provides an assessment of their likely heritage significance. The potential impacts to the non-Aboriginal cultural sites and items as a result of the Proposal are identified, as are management measures to ensure the identified impact is minimised.

13.1 Existing environment

13.1.1 Assessment approach

Through the project development phase, there have been two non-Aboriginal heritage assessments undertaken, one during the route options stage, and another assessment undertaken as part of the environmental assessment. A preliminary *Non-Aboriginal Heritage Assessment* (November 2002) was undertaken as part of the *Sapphire to Woolgoolga Draft Route Options Development Report* (December 2002). Tasks undertaken included:

- Searching listings of the Australian Heritage Commission's (AHC) Register of the National Estate, NSW State Heritage Inventory, National Trust of Australia (NSW), RTA Conservation and Heritage Register and relevant local and regional environmental planning instruments and heritage studies.
- Reviewing available literature applicable to the study area.
- Consulting relevant historical societies / groups and Coffs Harbour City Council.
- Identify heritage issues in the vicinity of each of the upgrade options and a preliminary assessment of potential effects resulting from road construction.
- Providing initial recommendations on the need to avoid, minimise or mitigate any potential effects and the need to undertake further detailed studies.
- Obtaining information on the statutory requirements relating to non-indigenous heritage issues.

As part of the environmental assessment process, another non-Aboriginal heritage assessment was undertaken, specifically relating to the impacts of the Proposal on known non-Aboriginal heritage items. The approach undertaken in the assessment included searches of all relevant heritage databases, consultation, a literature review and an investigation of the study area.

The following databases / registers were again searched during the environmental assessment phase to determine the presence of non-Aboriginal heritage items within the study area:

- World Heritage List.
- Register of the National Estate.
- National Heritage List.
- Commonwealth Heritage List.
- NSW State Heritage Inventory.
- National Trust of Australia (NSW).
- RTA Heritage and Conservation Register.
- Coffs Harbour local environmental plan.
- North Coast regional environmental plan.

Consultation was undertaken with Coffs Harbour City Council and State Forests to ascertain if there were other non-Aboriginal heritage items known to exist in the study area, but were not listed. While Coffs Harbour City Council were not aware of any other heritage sites, State Forests indicated that the project team should consider the assessment undertaken as part of the Coffs Harbour / Urunga Forest Management Area (which was reviewed as part of the literature review).

The literature review undertaken included consideration of:

- *Woolgoolga: The History of a Village, Mid North Coast NSW* (Yeates, N. 1982).
- *Built Heritage of the North Coast* (NSW Department of Planning 1992).
- *Archaeological Survey of Historical Sites: Coffs Harbour/Urunga Forest Management Area* (NSW Forests 1994).
- *Coffs Harbour Coastal Landscape Heritage Study* (Coffs Harbour City Council 1995).

Based on these non-Aboriginal heritage assessments, it was determined that no listed heritage items (other than the Solitary Islands Marine Park) would be affected by the Proposal.

13.1.2 Statutory position

Under the *Heritage Act 1977*, a relic is defined as:

'...any deposit, object or material evidence relating to the settlement of the area that comprises NSW, not being an Aboriginal settlement and which is 50 or more years old.'

Where a building, place or thing is on the State Heritage Register, approval under Part 4 of the *Heritage Act 1977* is required to demolish, damage, move and do other things which might affect the building, place or thing.

Also, sections 139 to 145 of the *Heritage Act 1977* prevent the excavation or disturbance of land where the person knows or suspects that a relic will be discovered, exposed, moved, damaged or destroyed, except where an excavation permit has been issued by the Heritage Office of NSW.

However, if the Proposal is approved under Part 3A of the *Environmental Planning and Assessment Act 1979*, no Part 4 approval or permit under Section 139 of the *Heritage Act 1977* will be required for the project.

13.1.3 Results of database searches and literature review

The following heritage items have been identified within the study area and are shown in Figure 13.1. Apart from the Solitary Islands Marine Park which is listed on the Register of National Estate, none of the items identified below are specifically listed under heritage related State or Federal legislation, or in any heritage schedules to local environmental plans or on local heritage registers. They have been identified as a result of a review of the literature identified in section 13.1.1 above. None of the items (apart from the Solitary Islands Marine Park) have an assigned level of heritage significance.

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Refer Figure 13.1

Solitary Islands Marine Park

The Solitary Islands Marine Park covers an area of approximately 71,000 hectares along the Coffs Harbour coast from Muttonbird Island in the south to Plover Island in the north, including adjacent littoral / inter-tidal ecosystems.

The Solitary Islands Marine Park listed on the Register of the National Estate includes:

- a NSW Portion (the "Solitary Islands Marine Park", defined by the (NSW) *Marine Parks Act 1997* as set out below); and
- a Commonwealth Portion (the "Solitary Islands Marine Reserve (Commonwealth Waters)", which extends from the 3 nautical mile State limit seaward to the 50 metre depth contour).

Schedule 4, Part 2 of the (NSW) *Marine Parks Act 1997* defines the boundary of the Solitary Islands Marine Park (refer Section 4.5.1). The definition includes all Crown Lands beneath tidal and coastal waters to mean high water mark. As it relates to the Proposal, the mean high water mark of all estuaries / creeks within the study area, except for Double Crossing Creek and Cunninghams Creek, are substantially downstream (hundreds of metres) of any proposed works.

The Solitary Islands Marine Park is listed on the Register of National Estate due to its natural (ecological) significance as the meeting point of the southward-flowing east Australian current with the colder northward-flowing inshore current. The currents form a complex mixture of marine communities, in which marine species normally associated with the Great Barrier Reef can be found along with species which occur as far south as Tasmania. There are no cultural or historical attributes associated with the listing of the Solitary Islands Marine Park on the Register of National Estate, only its natural (ecological) significance.

The Solitary Islands Marine Park is listed as a marine park under Clause 3 of Schedule 3 of the (NSW) *Marine Parks Act 1997*. The procedural process followed where an activity would be undertaken within a marine park is discussed in Chapter 4 of this report.

The potential impact of the Proposal on the Solitary Islands Marine Park is considered in Section 13.2.1 below.

Wedding Bells State Forest

The Coffs Harbour Coastal Landscape Heritage Study identified the Wedding Bells State Forest as having value to the local community, but it has not been formally listed on any heritage register or on the heritage schedule of the Coffs Harbour local environmental plan. The Wedding Bells State Forest has history of over 100 years of forestry use and management with its mix of native forest and eucalypt plantations. Features of the Wedding Bells State Forest include a waterfall, eight hectares of sub-tropical rainforest and is home to more than 80 species of birds. The primary values of the state forest identified in the *Coffs Harbour Coastal Landscape Heritage Study* are aesthetic, cultural, historic, natural as well as scientific or research values.

Woolgoolga forest nursery and nursery cottage

The Woolgoolga forest nursery was situated in a large cleared area within a pocket of the Wedding Bells State Forest, beside Woolgoolga Creek Road. The nursery started producing seedlings in 1946 following the purchase of the land by the Forestry Commission in 1944. Although there is little to no evidence of the structures left on the site, it once held a general storage shed, tubing shed and workmen's barracks. The Woolgoolga forest nursery is not listed on any heritage register or on the heritage schedule of the Coffs Harbour local environmental plan. The Woolgoolga forest nursery is not classified as a relic. However, if associated archaeological material is likely to be present, these materials / items would be classified as relics.

The nursery cottage was situated between the Woolgoolga forest nursery and Woolgoolga Creek Road and was used by the foreman in the mid 1940's. However, due to a fire in 1992 that destroyed the building, little remains of the structure. The nursery cottage is not listed on any heritage register or on the heritage schedule of the Coffs Harbour local environmental plan.

British Australian Timber Company tramline and Great Northern Timber Company tramline

The British Australian Timber Company tramline was completed in 1907 and ran for 10 kilometres from the Woolgoolga jetty to a timber mill within the Woolgoolga Nature Reserve (now Wedding Bells State Forest). It loosely followed the route of Woolgoolga Creek. The British Australian Timber Company tramline closed with the approach of World War I. Records show that some of the old sleepers, rails and other paraphernalia can still be found in or near Powerline Road (outside the study area).

In 1912, the Great Northern Timber Company erected a new timber mill a few hundred metres west of the Woolgoolga Jetty and by 1913 the new logging tramline had been laid out, crossing at Corindi Creek where it terminated almost one kilometre north of Bark Hut in what is now Wedding Bells State Forest. The tramline generally followed the route of the existing highway until Embankment Road where it headed west. Hardwood, particularly ironbark and spotted gum were sourced in the state forest area and transferred to the Great Northern Timber Company mill, which is thought to be the largest hardwood mill in Australia at the time. This tramline, like the British Australian Timber Company tramline, was short-lived, closing down just before the end of World War 1.

Neither the British Australian Timber Company tramline nor the Great Northern Timber Company tramline is listed on any heritage register or on the heritage schedule of the Coffs Harbour local environmental plan. Both tramlines reflect the region's social and economic drivers.

Postmaster general's department cable

The first electric telegraph line connecting Sydney and Brisbane opened in 1861, traversing the area but not running through Woolgoolga town, which was later connected in 1890. To the west of the Pacific Highway and within the Wedding Bells State Forest boundary are markers indicating the presence and north / south orientation of the old postmaster general's cable. There are known to be a number of these markers in the area. The cable is not listed on any heritage register or on the heritage schedule of the Coffs Harbour local environmental plan.

13.2 Potential impacts on non-Aboriginal heritage sites

As no listed heritage items (other than the Solitary Islands Marine Park) would be affected by the Proposal, a Statement of Heritage Impact Assessment has not been prepared.

13.2.1 Solitary Islands Marine Park

As discussed in Chapter 7, the Proposal would require the removal of the following bridge structures within or in close proximity to the area defined as the Solitary Islands Marine Park:

- Pacific Highway crossing over Cunninghams Creek (within marine park).
- Hoys Road crossing over Cunninghams Creek (close proximity to marine park).
- Pacific Highway crossing over Double Crossing Creek (within marine park).

The existing Pacific Highway bridge structures have piers within Double Crossing Creek and Cunninghams Creek. Construction of new bridge structures would be required at these creeks (refer Table 13.1).

TABLE 13.1 PROPOSED STRUCTURES AFFECTING THE SOLITARY ISLANDS MARINE PARK

| APPROXIMATE LOCATION (CHAINAGE) | WATERCOURSE CROSSED | DESCRIPTION ¹ |
|---------------------------------|-----------------------|--|
| 12.600 km | Cunninghams Creek | Removal of existing highway bridge consisting of two rows of five piers and construction of twin highway bridges and a bridge for the Moonee Beach interchange northbound on-ramp. |
| 12.800 km | Cunninghams Creek | Removal of existing bridge and construction of new bridge on Hoys Road. |
| 21.860 km | Double Crossing Creek | Removal of existing highway bridge consisting of two rows of four piers and construction of twin highway bridges and a bridge for the northbound off-ramp to Graham Drive North. |

¹ Bridging requirements would be further refined during the detailed design of the project.

The proposed bridge structures over Cunninghams Creek have been through several design refinements to ensure that they clear span the creek (therefore clear span the marine park) and as such, there would be no pier or abutment structures located within the maximum spring high tide limit of the creek. At Double Crossing Creek, the two bridges for the highway carriageways have also been designed to clear span the creek. The northern abutment of the northbound off-ramp bridge over Double Crossing Creek would be located on the bank of the creek. This bridge has been designed at maximum span; however the bridge abutment would still be located slightly within the mean high tide limit of Double Crossing Creek, and is therefore within the boundary of the Solitary Islands Marine Park. The maximum area of the marine park affected by the abutment would be 15m².

Alternative design arrangements for the northbound off-ramp bridge over Double Crossing Creek were examined including different ramp alignments, consolidation of the ramp into a wider main carriageway bridge and shifting the whole highway alignment to the east. However, none of these options was acceptable due to design compromise or additional impacts on Double Crossing Creek.

Potential impacts to the Solitary Islands Marine Park would mainly occur during the construction phase as a result of the removal of existing bridge spans and piers at the two creeks as well as the above-mentioned northbound off-ramp bridge abutment at Double Crossing Creek. Vegetation removal and subsequent exposure of soil would occur in the immediate vicinity of the proposed bridge approaches in order to create a safe working platform for removal of the existing bridges and construction of the new bridge structures.

The removal of existing bridge piers from both creeks has the potential to increase creek turbidity in the short term. Erosion of exposed soils from nearby construction areas and release of sediment into Double Crossing Creek and Cunningham's Creeks could impact on water quality, as could spillages associated with construction activity (eg. materials such as oils, fuels and cement). It is considered that the proposed bridge design (that would affect the marine park) and removal of the existing bridge would result in a minor impact considering the implementation of well-established environmental management measures (sediment and erosion control measures and development of detailed and specific method statements for bridge removal and construction). In this regard, the impacts on the Solitary Islands Marine Park would be negligible.

The potential exists for minor impacts to extend downstream and offshore, but only if there is

substantial uncontrolled erosion and sedimentation during the construction process. However these impacts are highly unlikely and would be considered minor as:

- The location of the existing and proposed bridge structures at both Cunninghams Creek and Double Crossing Creek are at the extreme periphery of the designated boundary of the marine park.
- Double Crossing Creek is a tributary of Hearn's Lake which is usually (naturally) closed to the ocean, and therefore does not exhibit the same core values relating to scientific and recreational uses (especially scuba diving) that the "ocean portion" of the marine park exhibits.

The potential impacts of removal and construction of these bridge structures on terrestrial and aquatic ecology is discussed in Chapter 17. The same consideration is provided in Chapter 18 in relation to water quality and soils. During the construction process there is also the potential for materials utilised during construction to be spilt or dropped into the creek environments, with some materials such as oils, fuels and cement having the potential to impact on the receiving waters. Options for demolition of the existing bridge structures indicate that a majority of work for superstructure removal is possible without entering the defined creek areas; however removal of piles would require some in-creek works.

The implementation of management measures would reduce and possibly remove a majority of the identified construction phase impacts. Management measures that would mitigate potential impacts in this regard include the development and implementation of soil and water management commitments (refer Appendix A).

When the highway is operational, a potential impact on the Solitary Islands Marine Park would be an increase in stormwater runoff associated with an increase in surface area of impermeable materials (the proposed highway carriageways, bridges and local access road network). The design provides for stormwater to be directed to water quality control structures for treatment prior to release into the creek systems.

The Proposal would have a positive impact on the water quality of the marine park at Cunninghams and Double Crossing creeks when the highway is operational as the design provides for the removal of bridge piers from within these creeks. The removal of piers from within the watercourse would free up tidal flow which is currently affected by existing piers. Further, extracting piers from within the creeklines has the potential to reduce scour at the downstream side of the piers, subsequently reducing sediment loads within the water course. This would have a localised positive effect on aquatic habitat.

There would be an overall minor net increase in the area of the marine park occupied by structures, being approximately 6.5m². This is calculated by removing the area of 18 existing piers located within the marine park (approximately 8.5m²) from the area of marine park affected by the northern abutment of the proposed northbound off ramp to Graham Drive North (approximately 15m²).

There would be impacts on the marine park during construction associated with the removal of the existing bridges (and piers) and with the construction of the new bridges over Cunninghams and Double Crossing Creeks. Management measures to which the RTA have committed (refer to the draft Statement of Commitments) would address these impacts.

When complete, the Proposal would result in a very minor net increase in the area of occupation within the marine park. Additional indirect impacts (ie stormwater runoff) would be controlled by management measures incorporated into the design as discussed in Chapter 7 and Chapter 18 of this report.

13.2.2 Wedding Bells State Forest

The Proposal would have a direct impact on the Wedding Bells State Forest mainly through the clearing of vegetation and bulk earthworks at the northern part of the route. The Proposal has been designed to minimise the extent of clearing required and also the size of the construction footprint. Management measures to minimise potential impacts on flora and fauna in the state forest are discussed in Chapter 17 and are considered appropriate measures for the management of the state forest's ecological scientific and research values impacts associated with the values of state forest.

The aesthetic, natural and landscape values of the state forest are recognised in the *Coffs Harbour Coastal Landscape Heritage Study* and the Proposal would have an impact on these aspects. The impacts are predominantly associated with the footprint the Proposal would have on an otherwise forested area on the landscape. The planting of appropriate vegetation species as outlined in the landscape design plans (refer Chapter 7) and urban design principles (refer Chapter 7 and Chapter 19) would minimise this impact.

The historic values of the state forest that are relevant to the Proposal are related to the presence of the Woolgoolga forest nursery and nursery cottage and are discussed below.

13.2.3 Woolgoolga forest nursery and nursery cottage

The Proposal would impact on the precinct of the former Woolgoolga forest nursery and the nursery cottage. However, there is little remaining evidence of either of these items and as a consequence, the potential heritage impact is concluded to be very low.

Management measures proposed by the RTA are identified in Section 13.3 below.

13.2.4 British Australian Timber Company and Great Northern Timber Company tramlines

There is limited physical evidence of either the British Australian Timber Company or the Great Northern Timber Company tramlines in the vicinity of the Proposal aside from short remnant sections of low earth embankment that are barely discernible in the heavily forested study area. The Proposal would cross the original alignment of both of these tramlines, but the potential heritage impact is concluded to be very low.

As for the Woolgoolga forest nursery and the nursery cottage, the objects of the Act and required management measures in relation to relics would be applied to these two tramlines, as would the management measures identified for the Woolgoolga forest nursery and the nursery cottage.

13.2.5 Postmaster general's department cable

There is limited physical evidence of the postmaster general's cable in the vicinity of the Proposal, with scattered markers the only available reference to the presence and north / south orientation of the postmaster general's cable. The Proposal would cross the original alignment of both of the postmaster general's cable, but the potential heritage impact is concluded to be very low.

13.3 Proposed management measures

13.3.1 General management measures

The RTA is committed to the management of heritage items and / or relics. The RTA will ensure that:

- (i) An archival record will be prepared and disseminated for the Woolgoolga forest nursery and nursery cottage, the British Australian Timber Company and Great Northern Timber Company tramlines and the Postmaster General's department cable by an appropriate heritage expert.

- (ii) All personnel working on site will receive training in their responsibilities under the Heritage Act, 1977. Site specific training will be given to workers when working in the vicinity of identified heritage items.
- (iii) Should any additional heritage items be uncovered during works, all works in the vicinity of the find would cease until specialist heritage advice is obtained.

These commitments are also provided in the draft Statement of Commitments in Appendix A.

13.3.2 Solitary Islands Marine Park

Potential impacts on the Solitary Islands Marine Park have been considered throughout the design process and appropriate management measures have been developed, and included in the draft Statement of Commitments.

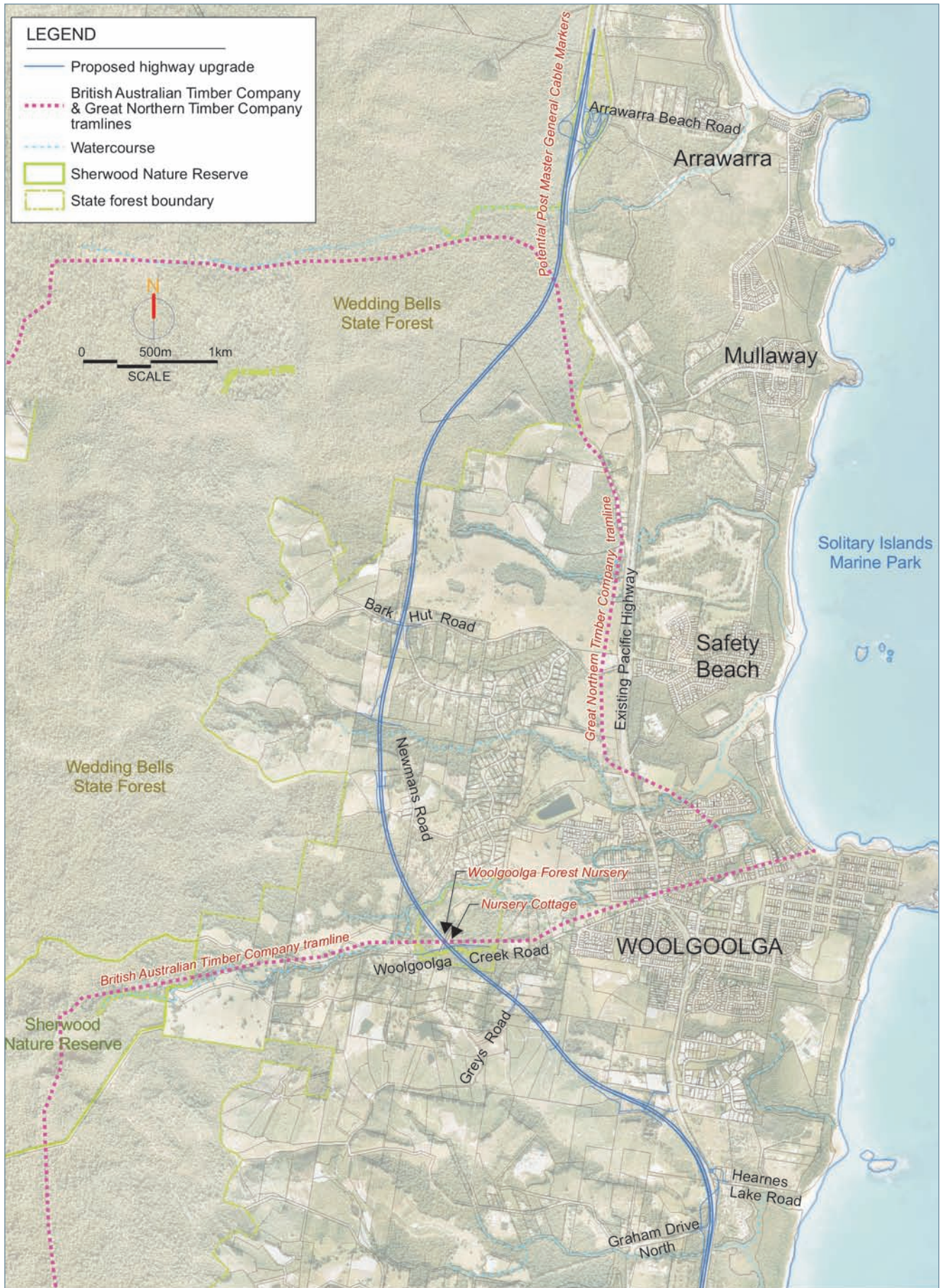
To reduce any impacts on the marine environment or broader marine area during construction, it is proposed that appropriate management measures to address potential water quality impacts will be provided (refer Section 18.3). This would include incorporation of soil and water management measures within the construction environmental management plan in consultation with the Department of Environment and Climate Change, Marine Parks Authority and Primary Industries.

For operation, the design includes placement of appropriately sized water quality control structures at numerous locations along the alignment, generally adjacent to culverts at transverse creek lines, both upstream and downstream of the highway formation. These structures would initially be designed to operate under construction conditions, and then refined as operational structures to treat stormwater from the highway prior to discharge into the watercourse. More detailed proposals relating to water quality control features are presented in Section 18.3.

13.3.3 Other identified non-Aboriginal heritage items

Measures to address potential impacts on the natural heritage values of the state forest would focus on minimising the flora / fauna, soil and water and landscape impacts. In this regard, the road design and comprehensive mitigation proposals (refer Chapters 17, 18 and 19) have been developed so the highway has the smallest possible footprint and impact on the forest environment.

Because of the assessed minor impact of the Proposal on the heritage values of the two forestry tramlines and the Woolgoolga forest nursery and nursery cottage and the postmaster general's cable, the RTA no longer proposes to proceed with the non-Aboriginal heritage management sub-plan identified in the project application report. Rather, the affected sites / precincts would be recorded prior to the road construction by an appropriate heritage expert in accordance with standard Heritage Office and RTA guidelines.



Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

FIGURE 13.1 NON-ABORIGINAL HERITAGE ITEMS