

4 Working Paper

Land Use, Planning and Socio-economic

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4 September 2007
Reference 1093
Revision 0

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1. Introduction

This report has been prepared for the NSW Roads and Traffic Authority (RTA) to assess the potential effects of the proposed upgrade of the Pacific Highway between Sapphire and Woolgoolga (the Proposal) in relation to statutory planning and environmental controls; strategic plans and policies; land use and socio-economic factors.

Overview description of study area

The study area consists of a corridor extending for approximately 25 km from Sapphire (approximately 8 km north of Coffs Harbour) to Arrawarra (north of Woolgoolga). The study area is located entirely within the Coffs Harbour Local Government Area on the NSW mid-north coast. The physical environment is characterised by a narrow coastal plain defined by the Coastal Range, which at the southern end near Sapphire, is immediately adjacent to the coast. The northern section becomes more undulating and hilly terrain especially west of Woolgoolga. The whole of the study area drains to the coast via a series of creeks. There is a rich biodiversity including numerous significant ecological communities and threatened species of native flora and fauna.

The area features diverse land use patterns including urban and rural residential areas, banana plantations and other agricultural properties, private forested land and State Forests. Along the study area, there are a number of coastal villages to the east of the highway. These include: Sapphire, Moonee Beach, Emerald Beach, Sandy Beach (which extends over the highway to the west), Woolgoolga (which also extends to the west of the highway), Safety Beach, Mullaway and Arrawarra. To the west of the highway there are a number of rural-residential estates including Heritage Park, Avocado Heights, Emerald Heights and the Country Club Estate.

The southern section of the highway upgrade between Sapphire and south Woolgoolga mainly involves amplification along the existing highway road reserve, while the Woolgoolga bypass section traverses mainly private land and State Forest.

The Proposal

The Proposal consists of:

- Duplication of the existing highway to dual carriageways for a distance of 14 km from Sapphire to south of Woolgoolga (Upgrade section).
- An 11km bypass to the west of Woolgoolga involving construction of dual carriageways. (Bypass section).
- Provision of a local access road network for travel along the northern beaches;
- Grade-separated interchanges at Sapphire, Moonee Beach, Emerald, south Woolgoolga and Arrawarra.
- At-grade intersections at Campbell Close (left-in / left-out northbound access) and at a proposed eastern local access road (right-in northbound access / left-out southbound access) at the southern end of the Proposal.
- A local road system generally adjacent to the upgraded highway between Sapphire and south Woolgoolga that allows local community access through the area without using the highway.
- Highway underpasses and overpasses along the bypass section so that the function of the local road network is maintained.
- A range of mitigation measures to manage the potential socio-economic and environmental impacts of the Proposal.

This report addresses three separate but interrelated topics:

Chapters 2 and 3 examine statutory and strategic plans and policies as well as consideration of relevant Commonwealth and State legislation.

Chapter 4 outlines the strategic land use planning policies that are relevant to the Coffs Harbour local government area

Chapter 5 provides a profile of the community in the study area, utilising data from Coffs Harbour City Council and the Bureau of Statistics.

Chapter 6 assesses the impacts that the Proposal would have on socio-economic issues including community cohesion, amenity impacts, access and movement patterns, property impacts and business and tourism impacts.

Chapter 7 provides proposed mitigation measures to manage impacts discussed in Chapter 5.

Chapter 8 provides a summary of the outcomes and conclusions of the working paper.

2. Statutory planning framework

2.1 NSW planning framework

2.1.1 Environmental Planning and Assessment Act 1979

Assessment and approval of major infrastructure in NSW including highway upgrade projects, is controlled primarily under the provisions of the NSW Environmental Planning and Assessment Act 1979. The Environmental Planning and Assessment Amendment [Infrastructure and other Planning Reform] Act 2005 introduced amendments that require major private and government projects to be assessed under Part 3A of the Act. It applies to:

- Major infrastructure or other development that, in the opinion of the Minister, is of State or regional environmental planning significance.
- Major infrastructure or other development that is an activity for which the proponent is also the determining authority (within the meaning of Part 5) and that, in the opinion of the proponent, would (but for Part 3A) require an environmental impact statement to be prepared under that Part.

Prior to these amendments, this Proposal would have been assessed under Division 4, Part 5 (requiring an environmental impact statement) of the Act as a State Government infrastructure project.

On 5 December 2006, the Minister for Planning under 75B(1) of the Act ordered that 13 projects part of the Pacific Highway Upgrade Program, including the Sapphire to Woolgoolga Upgrade, be projects to which Part 3A applies. These projects were also declared as Critical Infrastructure under Section 75C of the Act, as being essential to the State for economic and social reasons.

The Part 3A planning approval process (refer Figure 2.1) is initiated by the submission of a project application to the Department of Planning. A set of environmental assessment requirements are then issued by the Director General of the Department of Planning, in consultation with other government agencies. These environmental assessment requirements outline the key issues which become the focus for the environmental assessment. After submission of the environmental assessment to the Department of Planning, it is placed on public display for a period of no less than 30 days.

At the end of the display, the Department of Planning may provide the RTA with a copy of the submissions received or a summary of the issues raised. The RTA will be asked to respond and may modify the Proposal to minimise impacts on the environment as a result of submissions received. If the RTA changes the Proposal in response to the issues raised, a preferred project report describing the revised project would be prepared and made publicly available.

The Proposal will then be assessed by the Department of Planning and considered for approval by the Minister for Planning. Upon receipt of approval, the RTA will then determine whether or not to proceed with the project.

While a number of other statutes are typically applicable to projects where the Environmental Planning and Assessment Act applies, this is not the case under Part 3A. Clause 75U states:

“The following authorisations are not required for an approved project (and accordingly the provisions of any Act that prohibit an activity without such an authority do not apply):

- (a) the concurrence under Part 3 of the Coastal Protection Act 1979 of the Minister administering that Part of the Act,
- (b) a permit under section 201, 205 or 219 of the Fisheries Management Act 1994,

Part 3A environmental assessment process

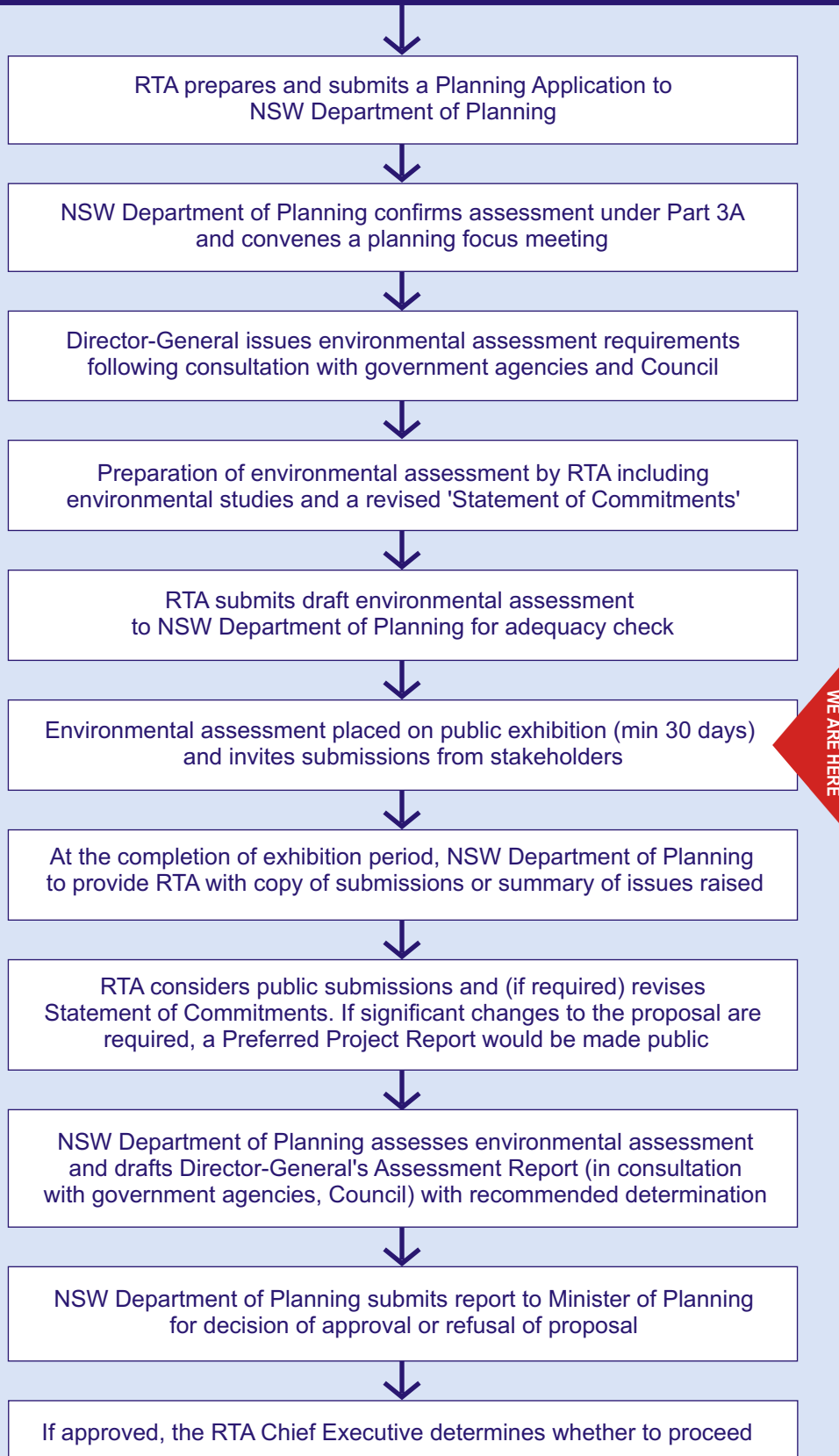


Figure 2.1

- (c) an approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977,
- (d) a permit under section 87 or a consent under section 90 of the National Parks and Wildlife Act 1974,
- (e) an authorisation referred to in section 12 of the Native Vegetation Act 2003 (or under any Act to be repealed by that Act) to clear native vegetation,
- (f) a permit under Part 3A of the Rivers and Foreshores Improvement Act 1948,
- (g) a bush fire safety authority under section 100B of the Rural Fires Act 1997,
- (h) a water use approval under section 89, a water management work approval under section 90 or an activity approval under section 91 of the Water Management Act 2000.”

Critical infrastructure

The 2005 amendments to the Environmental Planning and Assessment Act include the provision that, if Part 3A applies to a project, that project could also be declared critical infrastructure. A “critical infrastructure” project is a project considered to be essential to the economic, social or environmental welfare of NSW. As mentioned in section 2.1.1, the Sapphire to Woolgoolga project was declared to be critical infrastructure by the Minister of Planning in 2006

The assessment and approval process for critical infrastructure is similar to a Part 3A project, however some notable changes under section 75C:

- Excludes compliance with all environmental planning instruments (except State Environmental Planning Policies specifically relating to the project).
- Excludes third-party appeals under the Act or other environmental protection legislation.
- The following orders cannot be made or given to prevent or interfere with the carrying out of an approved project:
 - Interim protection orders under the National Parks and Wildlife Act 1974 or Threatened Species Conservation Act 1995.
 - Stop Work orders under the National Parks and Wildlife Act 1974, Threatened Species Conservation Act 1995, Fisheries Management Act 1994.
 - An environmental protection notice under the Protection of the Environment Operations Act 1997.
 - An order under the Local Government Act 1993.

2.1.2 Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act, which is administered by the NSW Department of Environment and Climate Change, is the overriding environmental protection legislation in NSW. The Act defines a number of activities which require an Environment Protection Licence. Scheduled activities include freeway or tollway construction that has:

- physically separated carriageways for traffic moving in different directions.
- at least four lanes; and
- no access between interchanges for at least five kilometres of their length.

Based on the current concept design, it is considered that the Proposal would not require an Environment Protection Licence as the distance between access points to the Proposal does not exceed 5 kilometres.

The Protection of the Environment Operations Act also imposes an obligation to notify the Department of Environment and Climate Change when a ‘pollution incident’ occurs that causes or threatens

'material harm' to the environment. Under the provisions of the Act, a licence can be sought for activities which may result in water pollution. The Department would be the appropriate regulatory authority for the Proposal and would have the power to issue stop-work notices.

2.1.3 Threatened Species Conservation Act 1995

The Threatened Species Conservation Act includes schedules identifying threatened species, populations and ecological communities and areas of critical habitat which require consideration when undertaking the environmental assessment for a proposed project. The Act also lists 'key threatening processes' to be considered in the assessment of a Proposal.

As the Proposal is to be considered under Part 3A of the Environmental Planning and Assessment Act, a Species Impact Statement is not required. However, flora and fauna studies have been conducted to determine if there are any threatened species / populations or ecological communities in the area, and if there are any potential impacts as a result of the Proposal.

2.1.4 Fisheries Management Act 1994

The Fisheries Management Act contains similar provisions to the Threatened Species Conservation Act in relation to threatened fish species. Although there is no requirement to prepare a Species Impact Statement for the Proposal in accordance with Division 6, Part 7 of the Act, flora and fauna studies (including marine species) have been conducted to determine the potential impact, if any, that could occur to threatened fish species.

Permits under section 201, 205 or 219 of the Fisheries Management Act are not required under the Part 3A approval process.

2.1.5 Native Vegetation Act 2003

The Native Vegetation Act requires that the consent of the Minister for Natural Resources is required for the clearing of native vegetation. Clearing must be undertaken in accordance with a development consent granted in accordance of this Act or a Property Vegetation Plan. However, because of the application of Part 3A of the Environmental Planning and Assessment Act, such consent is not required for any clearing of native vegetation required as part of the Proposal. However, the objectives of the Act were a consideration in the design of the Proposal, and removal of vegetation has been minimised, particularly through the use of the existing highway road reserve.

2.1.6 Heritage Act 1977

Approval may be required under the Heritage Act for works affecting an item listed on the State Heritage Register or for works affecting a relic, the latter being 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.'

Sections 139 to 145 of the Heritage Act prevent the excavation or disturbance of land for the purpose of discovering, exposing or moving a relic, except by a qualified archaeologist to whom an excavation permit has been issued by the Heritage Council of NSW.

However, as the Proposal is being assessed under Part 3A of the Environmental Planning and Assessment Act, approval under Part 4 or section 139 of the Heritage Act 1977 is not required.

2.1.7 National Parks and Wildlife Act 1974

Under Section 90 of the National Parks and Wildlife Act, approval is required from the Department of Environment and Climate Change (National Parks & Wildlife Service) to destroy, deface or damage an Aboriginal relic or an Aboriginal place. Section 87 of the Act requires a permit (a Preliminary Research Permit) for the disturbance or excavation of any land for the purpose of discovering an Aboriginal object. As the Proposal is being assessed under Part 3A of the Environmental Planning and Assessment Act, permits and consents under sections 87 and 90 of the National Parks and Wildlife Act are not required. Nevertheless, an Aboriginal heritage investigation has been undertaken and potential archaeological deposits identified. Excavations of the potential archaeological deposits would occur prior to construction in consultation with the relevant local aboriginal land council and the Department.

2.1.8 Marine Parks Act 1997

Under the Marine Parks Act, a determining authority must not carry out or grant approval to carry out, an activity unless they have taken into account the objects of the Act, the zoning plan of any proximal marine park and the permissible uses of the land (under the relevant Local Environmental Plan, in this case being the Coffs Harbour LEP 2000).

If not for Part 3A of the Environmental Planning and Assessment Act, an environmental impact statement would have been prepared for the Proposal under Part 5 of the Act and that process would have required concurrence from the relevant Ministers (Minister for the Environment and Minister for Primary Industries) to carry out the activity.

The requirement of obtaining concurrence under the Marine Parks Act 1997 has not been absolved under the Part 3A process. Therefore, as the Proposal would directly impact on the Solitary Islands Marine Park (new bridge over Double Crossing Creek and the demolition of existing bridges over Double Crossing and Cunninghams Creeks), concurrence would have to be sought under this Act prior to construction.

2.1.9 Water Management Act 2000

The Water Management Act is based on the concept of ecologically sustainable development and provides for:

- The protection of the health of rivers and groundwater systems and associated wetlands, floodplains and estuaries.
- The integrated management of water with other natural resources such as vegetation, soils and land.
- A sharing of responsibility for water management between the government and the community.
- Consideration of environmental, social, economic, cultural and heritage issues in the water management decision-making process.

Under the Act, a licence may be required from the Department of Natural Resources for any culvert installation. However, certain public agencies including the RTA are exempt from this requirement.

2.1.10 Rivers and Foreshores Improvement Act 1948

Under the Rivers and Foreshores Improvement Act, a person must not make any excavation or remove material from the bank, shore or a protected waterbed, or within 40m of a river or stream bed.

Public authorities such as the RTA are exempt from obtaining approvals under the Act. However, minimisation of disturbance to existing watercourses has been an important consideration through the development of the design for the Proposal.

2.1.11 Forestry Act 1916

The process of approvals and land acquisition to utilise State Forest land is legislated under the Forestry Act.

Where the area of land to be acquired for a project is less than 20 hectares, the Minister has the authority to revoke the dedication of the land as State Forest under Section 19B of the Act. However, prior to revoking the dedication, the Minister must consider a report and recommendation by State Forests. Should the land be more than 20 hectares in area, compliance with the conditions of s16A(3) of the Forestry Act would be required.

Under Section 16A of the Forestry Act, the Minister may enter into an agreement for the sale or other disposal of land dedicated as State Forest in exchange for other land either for the purpose of a State Forest or for access to an existing State Forest (subject to compliance with the conditions of s16A(3) of the Forestry Act).

As the area of State Forest required for the Proposal exceeds 20 hectares, the Act outlines a process for acquisition. However, this action is not required prior to or during the Environmental Assessment period. The RTA will begin the land acquisition phase after project approval and prior to commencement of construction.

2.2 State environmental planning instruments

State environmental planning policies (SEPPs) that may have potential application to the Project are identified below:

2.2.1 State Environmental Planning Policy 14 – Coastal Wetlands

The aim of SEPP 14 is to protect areas of coastal wetlands identified under the SEPP. Works within wetlands identified under SEPP 14 are defined as designated development and therefore require an environmental impact statement be prepared and consent obtained under Part 4 of the Act. Since the Proposal would not directly affect any wetlands, SEPP 14 would not expressly apply to the Proposal.

2.2.2 State Environmental Planning Policy 26 – Littoral Rainforests

The aim of SEPP 26 is to protect littoral rainforest within the State by establishing a mechanism for the consideration of development applications that are likely to affect areas of littoral rainforest. There are minor pockets of littoral rainforest present in the south of the study area. Detailed flora investigations undertaken as part of the environmental assessment have indicated that the Proposal would not impact on any littoral rainforests in the area, and accordingly would not expressly apply to the Proposal.

2.2.3 State Environmental Planning Policy 44 – Koala Habitat Protection

The aim of SEPP 44 is to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas. SEPP 44 does not apply to the Coffs Harbour LGA because a Koala Plan of Management has been prepared for the local government area by the Coffs Harbour City Council and as such, SEPP 44 would not expressly apply to the Proposal.

Section 2.4.1 of this report, the flora and fauna assessment and relevant sections of the Sapphire to Woolgoolga environmental assessment provide due consideration of the objectives of the Koala Plan of Management in assessing the potential impact of the Proposal on koalas and their habitat.

2.2.4 State Environmental Planning Policy 71 – Coastal Protection

The aim of SEPP 71 is to ensure that the coastal zone is protected in accordance with the principles of ecologically sustainable development. SEPP 71 ensures that development in the coastal zone is appropriate and suitably located and that there is a clear and consistent development framework for the coastal zone.

Whilst SEPP 71 would not expressly apply to the Proposal, the principles of the SEPP have been incorporated into the progressive development of design and mitigation measures for the Proposal in order to limit any impacts to estuaries that would be crossed.

It is noted that section 75J (3) provides that the Minister may (but is not required to take into account State environmental planning policies even though section 75R (3A) enables the Minister to remove its application to an approved project.

2.3 Regional Environmental Planning instruments

The North Coast Regional Environmental Plan was prepared in 1988 and it establishes the regional planning framework for the North Coast region of NSW and as such, it applies to the study area. The focus of the plan is on identifying issues for consideration in the making of local environmental planning instruments and, in particular, the need to maintain and enhance the environmental qualities of the region, while at the same time providing for efficient and important economic growth and development.

Objectives of the plan in relation to transport are:

- a) to safeguard the role and efficiency of the main road system of the region, particularly by recognising the importance of primary arterial roads, and
- (b) to facilitate maintenance and improvement of transport in the region.

The Proposal for the Sapphire to Woolgoolga project is consistent with these objectives. The upgrade would enable continuance of the role and efficiency of the Pacific Highway as well as the improvement of transport and traffic movement through the region.

The plan contains a number of provisions that relate to development control at a project specific level. These provisions include matters to be considered by Council in the determination of whether or not to grant development consent to the following activities:

- Agricultural activities (Clause 12).
- Activities within, adjoining or upstream of wetlands or fishery habitat areas (Clause 15).
- Clearing of natural vegetation in environmental protection, scenic protection or escarpment preservation zones (Clause 29A).
- Development of Coastal Lands (Clause 32B and 33).
- Development adjacent to the ocean or a waterway (Clause 81).

Because the Proposal is deemed to be critical infrastructure under section 75R of the Environmental Planning and Assessment Act, the North Coast Regional Environmental Plan has no direct relevance to the approval process for the Proposal. Notwithstanding this situation, the relevant provisions outlined above were considered during the design of the Proposal and during investigations undertaken as part of the environmental assessment.

2.4 Local Planning Framework

Although the Proposal is wholly within the Coffs Harbour Local Government Area, it is affected by two Local Environmental Plans. Most of the study area is covered by the Coffs Harbour Local Environmental Plan 2000 but the Ulmarra Local Environmental Plan 1992 covers land at the northern end near Arrawarra, which was formerly part of the Ulmarra Shire. The Proposal would impact approximately 200 metres within the boundary of the Ulmarra LEP. Coffs Harbour City Council has indicated it will combine this into the Coffs Harbour Local Environmental Plan now that the NSW Government has released a standard template.

Under the Coffs Harbour Local Environmental Plan 2000, the Proposal traverses a number of land use zones including residential, forestry and rural areas as well as road reservations.

In Clause 7 of the Coffs Harbour LEP, activities are identified that are neither prohibited or require development consent. Activities referred to in Clause 7 (ie. listed in Schedule 1) include:

“The carrying out by a public authority of any development required in connection with the construction, reconstruction, improvement, maintenance or repair of any road.”

The Proposal is therefore, permissible without consent in all zones within the Coffs Harbour Local Environmental Plan.

Within the Ulmarra Local Environmental Plan, the land zoning that would be impacted is 1 (f) Rural (Forests) zones. Discussions between Coffs Harbour City Council and the NSW Roads and Traffic Authority have resulted in the Coffs Harbour City Council determining that the Proposal is not prohibited within the forestry zone (see the Sapphire to Woolgoolga Project Application Report).

As such, the Proposal is not prohibited within any land use zoning under both the Coffs Harbour LEP and the Ulmarra Local Environmental Plan.

2.4.1 Coffs Harbour Koala Plan of Management

The Coffs Harbour Koala Plan of Management (1999) was a joint initiative of the National Parks and Wildlife Service (now part of the Department of Environment and Climate Change) and Coffs Harbour City Council. The plan was prepared to fulfil the statutory requirements of SEPP 44 and to facilitate koala conservation in Coffs Harbour. It identified and mapped koala habitat throughout the local government area, categorising primary, secondary and tertiary koala habitat as a basis for protection of the habitat within. The plan also established ongoing management actions for public education, research and implementation as well as making recommendations for protecting koala habitat by means of planning controls on development, clearing, disturbance, habitat fragmentation or isolation.

The Koala Plan of Management and SEPP 44 objectives have been considered during preparation of the specialist flora and fauna study undertaken as part of the environmental assessment. The flora and fauna assessment identifies management measures that would be implemented as part of the Proposal and includes specific measures relevant to koala conservation such as provision of fauna underpasses and fauna fencing to accommodate wildlife linkages.

2.4.2 Commonwealth environmental legislation

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 requires that approval from the Commonwealth Minister for the Environment and Water Resources is required if the Proposal is likely to have or would have a significant effect on a matter of “National Environmental Significance” which includes:

- World Heritage properties – no such properties would be affected.
- Ramsar wetlands – no such wetlands would be affected.
- Commonwealth marine areas – no such areas would be affected.
- Nuclear actions – no such actions are proposed.
- Listed threatened species and ecological communities – effects on such features are examined in working paper 7: Flora and Fauna Assessment.
- Listed migratory species – effects on such features are examined in working paper 7: Flora and Fauna Assessment.
- National Heritage Items – no such properties would be affected.

If a significant effect is likely to occur (or if the proponent is unsure whether a significant effect would occur), the proponent is required to refer the project to the Department for a decision on whether the project constitutes a “controlled action”. If the Proposal were deemed a “controlled action” approval of the project would be required from the Minister for the Environment and Water Resources.

Through various assessments done as part of the environmental assessment, it has been concluded that it is highly unlikely that the Proposal would result in a significant effect on any matter of National Environmental Significance.

The Act also provides that approval from the Commonwealth Environment Minister is required where:

- an action on Commonwealth land that has, will have, or is likely to have a significant impact on the environment.
- an action outside Commonwealth land that has, will have or is likely to have a significant impact on the environment on Commonwealth land.
- an action undertaken by the Commonwealth which has, will have or is likely to have a significant impact on the environment anywhere in the world.

The Proposal would be jointly funded by the Commonwealth and NSW governments but it would not be undertaken on, or in proximity to, any Commonwealth owned land nor would it be undertaken by a Commonwealth agency.

Notwithstanding the conclusion about no significant impact on matters of National Environmental Significance, the Proposal has been referred to the Department for a decision on whether the project constitutes a “controlled action” due to the potential impacts on threatened and migratory species.

3. Strategic plans and policies

This section examines a range of strategic planning documents and policies that are of potential relevance to the Proposal. The documents identified address diverse issues such as transportation planning, land use, economic development, natural resources and environmental management and various social planning and community matters. The strategic importance of these plans and policies may be relevant at a broad national level through to very local scale.,

3.1 NSW government strategies

3.1.1 NSW State Plan (2006)

The NSW State Plan was launched on 14 November 2006 and outlines goals and priorities for the next 10 years in the following areas:

- Rights, respect and responsibility.
- Delivering better services.
- Fairness and opportunity
- Growing prosperity across NSW.
- Environment for living.

Goals for road infrastructure include:

- High quality transport system.
- NSW: Open for business, and
- Improved urban environment.

The upgrade of the Pacific Highway between Sapphire and Woolgoolga is identified as an important transport infrastructure priority. Development, approval and ultimately construction of this Proposal are consistent with the goals outlined in the NSW State Plan.

3.1.2 State Infrastructure Strategy (2006)

The State Infrastructure Strategy covers the period between 2006-2007 and 2015-2016 and outlines infrastructure projects and associated funding for the period. The key drivers of infrastructure spend will be population growth and distribution, ageing and longevity, technological change, industrial and commercial development, cost pressures, infrastructure renewal and environmental issues.

The range of infrastructure needs addressed in the State Infrastructure Strategy includes:

- Human services.
- Justice.
- Transport.
- Electricity.
- Water.

The upgrade of the Pacific Highway is identified as an important aspect of the strategy. This re-affirms the State Government commitment with the Federal Government to provide a total of \$640 million each for the period 2006- 2009 for the upgrade of the Pacific Highway.

3.1.3 Action for Air

The NSW Government's Action for Air provides key strategies and guidelines for protecting and improving the quality of air in New South Wales. The original plan was released in 1998 and progress was reviewed in 2001, 2004 and 2006.

The Policy covers a range of key strategies, including the following which are relevant to the development of transport infrastructure projects:

- Integrating air quality goals and urban transport planning – to reduce the growth in vehicle kilometres travelled by effectively integrating urban and transportation planning and improving transport choices.
- Provide more and better transport choices – to improve transport choices and encourage reduction in vehicle trips and kilometres travelled by both passenger and commercial vehicles.
- Make cars, trucks and buses cleaner – to reduce exhaust and evaporative emissions from new and in-service cars, trucks and buses.

In late 2005, the RTA set up an air quality monitoring station at Korora to obtain data in the vicinity of the existing Pacific Highway. This is the first such activity for the Pacific Highway and it provided valuable data of relevance to the study area and the Proposal. The results showed that the levels for all tested air quality parameters comply with the relevant standards (working paper 8: Air Quality Monitoring)

The second strategy in the Policy becomes increasingly important as Coffs Harbour and the northern beaches continue to grow. The Proposal would provide new transport opportunities in the study area mainly through the local road network improvements that would result, and especially in terms of better accessibility / connectivity between communities for motorists, bus services, pedestrians and cyclists.

The strategy to reduce emissions will be influenced by broader government and industry initiatives. However, the Proposal has been developed so that more efficient vehicle operations can be achieved along the corridor, for both local traffic and the growing number of freight vehicles and other through traffic that uses the existing highway as a north / south regional arterial route.

3.1.4 Road Safety 2010

Road Safety 2010 is a NSW Government policy document focussing on the need to improve road safety on metropolitan and regional road networks. Road Safety 2010 contains commitments to building and maintaining better and safer roads and cites the upgrading of the Pacific Highway as a key initiative in this regard.

The Proposal incorporates a high standard of road design, especially in relation to access control, vertical and horizontal alignment and the dual carriageway cross section details. Road safety was, and continues to be, an important criterion used in the assessment leading to the adoption of the Proposal, as well as being a key driver in the refinement of the design (particularly the inclusion of a local access road network).

3.2 Regional strategies and policies

3.2.1 North Coast Regional Environmental Plan

The statutory implications of the plan are discussed in Section [2.3](#). The primary objectives of the plan are:

- a) to develop regional policies that protect the natural environment, encourage an efficient and attractive built environment and guide development into a productive yet environmentally sound future,
- b) to consolidate and amend various existing policies applying to the region, make them more appropriate to regional needs and place them in an overall context of regional policy,

- c) to provide a basis for the co-ordination of activities related to growth in the region and encourage optimum economic and social benefit to the local community and visitors to the region, and
- d) to initiate a regional planning process that will serve as a framework for identifying priorities for further investigation to be carried out by the Department and other agencies.

The plan also provides specific guidelines for the provision and development of strategic transport links, principally roads, which are the key to economic growth and prosperity in the region. Clause 53 (2) (b) states that “where traffic is in conflict with local traffic, make provision for traffic to bypass major urban areas”. This is especially true for designated primary arterial roads, of which the Pacific Highway is one.

The Proposal complies with this guideline through specific design features. Except for two at-grade intersections at the southern end, controlled highway access would be achieved through use of grade-separated interchanges at five strategic locations that recognise and accommodate existing and future land use plans in the study area. The provision of a local access road network along the entire length of the upgrade would also increase safety along the highway. With an alternative travel route for local movement between the northern beaches communities, potential traffic conflicts between local and through traffic would be minimised. The bypass of Woolgoolga would also significantly reduce conflicts between local movements and through traffic.

Strategic planning objectives of the North Coast Regional Environmental Plan of particular relevance to the Proposal are listed in Table 3.1.

Table 3.1: NCREP Strategic Planning Objectives

Objective
Agricultural Resources
To conserve the productive potential of agricultural land.
To ensure that commercial agriculture is not affected adversely by incompatible uses which impair its long term sustainability.
To ensure that industries and services that support agriculture are not disrupted.
Geological Resources
To prevent sterilisation of known resources by inappropriate development on or near to potential extraction sites.
Natural Environment
To protect areas of natural vegetation and wildlife from destruction and to provide corridors between significant areas.
To protect the scenic quality of the region, including natural areas, attractive rural areas and areas adjacent to waterbodies, headlands, skylines and escarpments.
Coastal Planning
To enhance the visual quality of the coastal environment.
Heritage
To conserve the environmental heritage (including the historic, scientific, cultural, social, archaeological, architectural and aesthetic heritage) of the North Coast Region.
To encourage the conservation of the Region's historic townscapes which contain one or more buildings or places of heritage significance or which have a character and appearance that is desirable to conserve.
Transport
To safeguard the role and efficiency of the main road system of the region, particularly by recognising the importance of primary arterial roads.
To facilitate maintenance and improvement of transport in the region.

As previously noted, the Proposal has been developed to fulfil the transport objectives identified in the plan. The likely implications of the Proposal in relation to the other objectives identified in Table 2.1 are assessed in other relevant investigations undertaken and reported in the environmental assessment and associated working papers (in particular the assessments for: agriculture; construction methods / staging; flora and fauna; visual and urban design; Aboriginal and non-Aboriginal heritage).

3.2.2 Draft Mid North Coast Regional Strategy

The draft Mid North Coast Regional Strategy was released in December 2006 outlining the strategy for the next 25 years for the region incorporating Clarence Valley, Coffs Harbour, Bellingen, Nambucca, Kempsey, Port Macquarie-Hastings, Greater Taree and Great Lakes. It addresses issues including:

- Settlement and housing.
- Settlement character and design.
- Economic development and employment growth.
- Environment and natural resources.
- Natural hazards.
- Cultural heritage.
- Water supply.
- Regional transport.

The Strategy identifies Coffs Harbour as a major regional centre to:

“serve(s) the Coffs Harbour/ Bellingen/ Nambucca subregion and has several regional functions including air transport, tertiary education, high level health care and resort tourism. It has significant capacity to grow in the life of this Strategy. A mix of medium to high densities will be encouraged around the town centre and in key precincts such as the jetty area and Park Beach”

Woolgoolga has also been identified as a major town, being self-contained and providing services to the subregion including shopping, business and farm support services.

In addressing regional transport, the Strategy acknowledges that 65% of travel to the region is via road travel, with the Pacific Highway being the major north-south corridor. The Pacific Highway will continue to be the primary north-south road. Under the Strategy, efficiency and safety of the highway would be protected, particularly through the Pacific Highway Upgrade Program which would see 500km of Pacific Highway upgraded through the Mid North Coast.

As shown in Table 3.2 below, the Proposal is compatible with and fulfils the aims of the draft Mid North Coast Regional Strategy:

Table 3.2: Draft Mid North Coast Regional Strategy aims

Strategy aims	Proposal consistency
Protect high value environments, including significant coastal lakes, estuaries, aquifers, threatened species, vegetation communities and habitat corridors by ensuring that new urban development avoids these important areas and their catchments.	Flora and fauna assessments undertaken during the route option and environmental assessment phases have been an input into the selection of the preferred route and the refinement of the concept design for the Proposal. Where feasible and practical, the preferred route has been selected and the concept design refined to avoid and/or minimise impacts on areas of high value environments (refer working paper 7: Flora and Fauna Assessment).
Cater for a housing demand of up to 58 400 new dwellings by 2031 to accommodate the forecast population increase of 91 000 and any anticipated growth beyond this figure arising from increased development pressures in the southern part of the Region.	The Proposal facilitates the future land use development along the study area, and in the Mid North Coast region, through a more efficient highway, and the incorporation of grade-separated interchanges at locations within the study area that will experience future increase in development..
Ensure that new housing meets the needs of smaller households and an ageing population by encouraging a shift in dwelling mix and type so that 60 percent of new housing will be in greenfield locations and 40 percent in existing urban areas.	N/A
Ensure an adequate supply of land exists to support economic growth and the capacity for an additional 47 000 jobs in the Region by protecting existing commercial and employment areas and securing sufficient land to support new employment opportunities.	N/A
Encourage the growth and redevelopment of the Region's four major regional centres and six major towns through urban design and renewal strategies as a means of protecting sensitive coastal and natural environments and strengthening the economic and administrative functions of these centres as well as meeting increased density projections.	The Proposal will facilitate future growth and redevelopment of Coffs Harbour and Woolgoolga, through the bypass deviating around Woolgoolga, and providing a safer, more efficient route for traffic travelling from the northern beaches to Coffs Harbour.
Protect the coast by limiting urban sprawl, by focusing new settlement in areas identified on local strategy maps and restricting unplanned new urban or rural residential settlement.	Where feasible and practical, the preferred route has been selected and the concept design refined to avoid and/or minimise impacts on areas identified for future development. The Proposal facilitates the consolidation of existing developed areas and the development of areas identified for future

	development through a more efficient highway and the incorporation of grade- separated interchanges at locations that will provide efficient access to these areas.
Only consider additional development sites outside of agreed local strategies if they can satisfy the Sustainability Criteria (Appendix 1).	N/A
Limit development in places constrained by coastal processes, flooding, wetlands, important farmland and landscapes of high scenic and conservation value.	Issues such as flooding, impact on wetlands, important farmland and high scenic landscapes have considered during both the route option and environmental assessment phases of the development of the Proposal (refer Sapphire to Woolgoolga: environmental assessment).
Protect the cultural and Aboriginal heritage values and visual character of rural and coastal towns and villages and surrounding landscapes.	Assessments of cultural and Aboriginal heritage values and visual characteristics of the study area were undertaken during the route option and environmental assessment phases of the development of the Proposal. These assessments have been an input into the selection of the preferred route and the refinement of the concept design for the Proposal. Where feasible and practical, the preferred route has been selected and the concept design refined to avoid and/or minimise impacts on Aboriginal heritage (refer working paper 3: Aboriginal heritage) as well as considering the visual character of the coastal towns and surrounding landscapes (refer Sapphire to Woolgoolga environmental assessment).

3.2.3 North Coast Urban Planning Strategy

The North Coast Urban Planning Strategy – Into the 21st Century, prepared by the Department of Planning in 1995, outlines a range of strategy outcomes for the future settlement patterns for the North Coast area of NSW including all local government areas between Tweed Heads and Hastings (Port Macquarie).

The Strategy aims to provide a more coherent approach to the planning of settlements along the North Coast, with regard to a number of issues related to each area's capacity and constraints, in order to better accommodate the predicted growth in population. The Strategy also complements the North Coast Regional Environmental Plan.

The Strategy envisaged a population for Coffs Harbour of 87,000 by the year 2016. It notes that there is sufficient zoned land to accommodate this increase, however there are significant planning issues associated with such an increase in population, including water supply and waste management.

The Strategy discusses the need for specific attention to be given to increasing traffic congestion and road network problems around Coffs Harbour. This was considered an impediment to growth and has been highlighted as a strategic issue for further investigation. The Strategy obviously pre-dates the Pacific Highway Upgrade initiative including the Coffs Harbour Highway Planning Strategy.

3.2.4 Upgrading the Pacific Highway Discussion Paper / Memorandum of Understanding

The RTA's Discussion Paper on upgrading the Pacific Highway was released in 1997 and contained details of the proposed funding and management arrangements for the then 10 year upgrading program between Hexham and Tweed Heads. As of the end of July 2006, 233 kilometres of Pacific Highway were double lane divided road.

In December 2005, the NSW and Australian governments announced a jointly funded program of \$960 million for the three years to 2009. In June 2006, both the two governments signed a Memorandum of Understanding for Pacific Highway duplication and safety works package and committed an additional \$160 million each. This brings to \$1.3 billion the level of funding the two governments have committed to upgrading the Pacific Highway until the end of 2009 under the new agreements.

3.3 Local strategies and policies

3.3.1 Woolgoolga Town Centre Study (1996)

A town centre study was completed in 1996 for Woolgoolga, outlining existing and future planning issues such as traffic and transport, commercial environment, recreation and open space, as well as tourism and community services. The study area for the Town Centre takes in much of the Woolgoolga town area stretching from the headland to west of the highway.

The Study identified traffic and transport as being one of the key issues affecting the amenity of Woolgoolga. The proposed bypass to the west of Woolgoolga would significantly alleviate traffic problems such as noise, heavy vehicles and accessibility constraints associated with the existing highway. The Proposal would therefore provide opportunities for Council and other bodies like the Chamber of Commerce to implement some of the strategies outlined in the Study.

3.3.2 Woolgoolga Business Lands Information Sheet (2000)

The Woolgoolga Business Lands Information Sheet provides a Masterplan for the Woolgoolga town centre. It encompasses strategies for the development of the centre and provides design principles for urban development within the area.

The proposed bypass of Woolgoolga would assist in the realisation of plan objectives by diverting a large proportion of through and heavy vehicles from the town. This would facilitate the movement of local motorists, pedestrians and cyclists and improve the amenity of Woolgoolga, which is a key strategy of the Masterplan.

3.3.3 Coffs Harbour City Council Draft "Our Living City" Settlement Strategy (2005)

The Draft "Our Living City" Settlement Strategy has been developed to achieve a vision for Council's strategic directions until 2030. The Strategy is separated into three Working Papers: Economic Sustainability, Environmental Sustainability and Social Sustainability and looks at issues and possible strategic actions to improve the amenity of the City. In conjunction with this strategy, in 2004 a Land Capacity Assessment was undertaken providing an assessment of the population capacity of existing and future development in the Coffs Harbour local government area.

The Land Capacity Assessment estimated that 107,000 people could be accommodated within the local government area by the year 2030, although it is only projected for a population of 100,000 in 2030. The Land Capacity Assessment identifies land with an approved development application or where development had begun, un-subdivided residential land as well as areas of potential residential land. The assessment anticipates that approximately 43 percent of the increase in population would be along the northern beaches, from Korora to Red Rock / Corindi.

The strategy identifies issues and suggests strategic actions in order to manage Coffs Harbour's growth in a sustainable manner. The Social Sustainability Working Paper discusses a range of issues including health, liveability, access and services and facilities for the existing and future population as well as crime and safety. The Economic Sustainability Working Paper looks at issues of business, employment and infrastructure, while the Environmental Sustainability Working Paper addresses issues of conservation, resource management and efficiency.

The preferred route for the Coffs Harbour Highway Planning Strategy (including the Sapphire to Woolgoolga upgrade) was taken into account when these documents were drafted. Upgrading the highway will see benefits, particularly road safety, travel efficiency and improved community accessibility that are consistent with the Strategy. The Strategy was on public exhibition from July to October 2006. A number of community submissions requested that the Strategy be halted until the upgrade route was selected and all environmental studies were completed.

In a letter dated 11 October 2006, the Department of Planning advised Council that "it is appropriate that the preferred route (for the highway upgrade) be shown in the Strategy as this major infrastructure corridor needs to be considered in the future planning of the Coffs Harbour local government area." At its meeting on 17 May 2007, Coffs Harbour City Council resolved "to make provision for the Pacific Highway upgrade at Coffs Harbour to be included for consideration in the Our Living City Settlement Strategy." At the meeting, Council also resolved "that Council and the community request both the State and Federal members to continue to lobby on the City's behalf for an acceptable highway to the west of Coffs Harbour."

At its meeting on 5 July 2007, Coffs Harbour City Council endorsed the Our Living City Settlement Strategy and resolved to lobby the Department of Planning to allow for endorsement of the Strategy whilst the Department is finalising their Mid North Coast Regional Plan. The Strategy endorsed by Council incorporated the preferred route for the upgrade of the Pacific Highway. No actual western route has been shown on the endorsed Strategy plans. Instead, words explaining Council's resolution (of 17 May 2007) for an acceptable highway west of Coffs Harbour were included in the endorsed Strategy.

3.3.4 Coffs Harbour City Council Rural Residential Strategy (1999)

Council prepared the Rural Residential Strategy to assist in the planning for possible locations of rural residential development within the local government area, to cater for the increase in demand for such living. The areas targeted are mainly situated immediately to the south and north of Coffs Harbour. To the north, the area west of Korora was nominated for preferred rural residential development, as well as an area known as West Sapphire. The objectives of the strategy have been taken into consideration during development of the Proposal in this area and this has influenced the local access road planning and the proposal to provide an overpass at Headland Road to facilitate cross highway movement for residents of west Sapphire.

3.3.5 Rural Lands Strategic Plan (2003)

The Coffs Harbour Rural Lands Strategic Plan was developed by Council in partnership with the community having first been presented as a draft in 2001. The adopted plan did not include a discussion or strategy on the subdivision of land zoned Rural 1A and this became an important issue in the Commission of Inquiry into the Strategic Plan. The outcome was a moratorium on the subdivision of such land from September 2004 until a new strategic urban development plan had been completed for the local government area.

The Plan is supplemented by a draft local environmental plan that amends the Coffs Harbour City LEP 2000. Most of the amendments apply to the rural villages and deal with changes to zonings, or development permitted. Another amendment proposed changes to the Rural Residential Development Strategy, including land release programs and investigation areas.

The Rural Lands Strategic Plan was subsequently altered by:

- Lifting of the moratorium on subdivision within the Rural 1A zone on the basis that the maximum potential is only 124 additional allotments across the LGA.
- Retention of the minimum subdivision size of 40 hectares for land identified for agricultural purposes.
- Retention of a special provision for six-hectare minimum allotment size on lands to be mapped for 'coastal frost-free horticulture'.
- Preference to be given to closer rural settlement rather than dispersed settlement across the Rural 1A zoned lands. This will include allowing dwellings on existing allotments of less than 40 hectares where they are within two kilometres of a nominated village. The suggested villages are Coramba, Nana Glen and Corindi Beach (subject to bushfire assessment).

The Rural Lands Settlement Plan was adopted by Coffs Harbour City Council in June 2007.

The Plan undertook composite constraint mapping of the local government area to identify areas which would be suited to subdivision. Land identified as being suitable for subdivision were mostly within the interior of the local government area around Lowanna, Ulong and inland from Corindi Beach. To the west of Woolgoolga, there are few identified opportunities for property owners to subdivide rural properties.

3.3.6 Estuary Management Study and Plan: Moonee Creek, Moonee Beach, Coffs Harbour: Final Draft Report (2006)

The Estuary Management Study and Plan is a guide to assist local future land use and natural resource management and has been prepared under the NSW Government's Estuary Management Program. The Study and Plan identify values of the estuary (including a range of ecological, recreational, scenic, heritage, educational and economic benefits) and issues of concern that have been raised through extensive studies and community consultation. The issues of concern included water quality, erosion, recreational uses of the estuary and invasion of weeds / lack of native vegetation.

Long-term management objectives and specific strategies to be implemented by Council are presented under the broad headings of Water Quality, Bank Erosion / Sedimentation, Ecology, Catchment Development, Waterway Usage, Heritage and Future Management Mechanisms.

The Proposal would cross Sugarmill, Cunninghams and Skinners Creeks, all tributaries of Moonee Creek, as well as Moonee Creek itself and as such, it could potentially result in indirect impacts on the estuary. Table 3.3 shows the objectives / strategies of the Estuary Management Plan of relevance to the Proposal and a comment on how the Proposal would manage potential impacts.

Table 3.3: Objectives of the Estuary Management Plan

Objective / Specific Strategy	Compliance Statement
Water Quality	
Reduce the level of pollutant and sediment loads entering Moonee Creek	A construction environment management plan for the project would put in place measures to minimise any spillage of pollutant or sediment into the estuary.

Objective / Specific Strategy	Compliance Statement
Bank Erosion and Sedimentation Objectives	
Stabilise and rehabilitate foreshores that have become degraded due to inappropriate usage and foreshore development	A construction environment management plan would put in place measures to minimise any further damage to the estuary foreshores and undertake remediation of any foreshore damaged during construction.
Ecology / Biodiversity Objectives	
Prevent the degradation of existing habitats throughout the estuary, and ensure protection and sustainability of existing fauna communities, particularly threatened species	There would be minimal impact to the existing habitats in the estuary. The development and implementation of a construction environment management plan would put in place measures to minimise potential impacts on fauna communities.
Future Catchment Development Objectives	
Ensure that all future development considers the environmental sensitivity of Moonee Creek and does not place any additional stress on the existing natural environment, including additional pollutant loads and surface runoff	The sensitivity of Moonee Creek is being assessed in a Flora and Fauna Working Paper for the Proposal. The upgrade of the highway to a high standard highway would reduce the potential for pollutant spills into the estuary.

An Estuary Management Study for Hearnes Lake is in preparation and it will result in the development of an Estuary Management Plan. As with the Moonee Creek estuary, any potential impacts on this and other estuaries traversed by the Proposal would be minimised through appropriate environmental controls / management measures such as erosion / sedimentation / water quality control basins. Comprehensive mitigation measures for the Proposal are presented in the revised Statement of Commitments as part of the environmental assessment.

4. Land use and development

4.1 Introduction

The pattern of land use of the study area which incorporates the northern beaches of Coffs Harbour is very diverse, ranging from intensive tourist developments and closer settled residential towns / villages through to large rural holdings and forestry. The main settlements of the study area are summarised below and this is followed by an account of each main land use category.

Sapphire

Sapphire has two main land use precincts, one being the intensive beachfront tourist facilities and medium density housing area at the southern end of the study area and the second being the beachside residential suburban area. Coffs Harbour is the main key work / commercial / community hub for residents in this area. The area west of the highway (and extending north to Moonee) is predominantly rural residential development with limited agricultural land use.

Moonee Beach

Moonee Beach is a quiet beachside residential village east of the highway, but it is undergoing rapid change as the urban development envisaged as part of the Moonee Beach Development Control Plan takes effect. The opening of a large shopping centre at Moonee Beach reflects the significant land use change occurring in this locality.

Sandy Beach / Emerald

This area is predominantly residential with limited tourist facilities and accommodation interspersed. Sandy Beach and Emerald Beach are closer settled urban precincts, while Emerald Heights is a rural residential subdivision. Commercial facilities in these areas are very limited and they rely on either Woolgoolga or Coffs Harbour for routine goods and services.

Woolgoolga

Woolgoolga is the largest urban settlement within the study area and is an important hub providing key facilities and services for the smaller surrounding settlements along the northern beaches and for nearby rural areas. Key services include health, education, religion, entertainment facilities and economic facilities. Residential development is varied and consists of beachside living and rural farmland. New urban release areas are approved and /or planned in several precincts near Woolgoolga including Hearnese Lake, West Woolgoolga and south Woolgoolga. .

Arrawarra / Mullaway / Safety Beach

These small village areas are situated in the northern section of the study area and comprise residential development, both closer settled and rural living, with holiday accommodation and limited services including corner shops, small schools and recreation facilities.

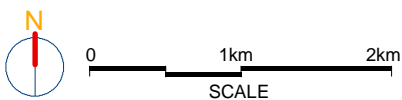
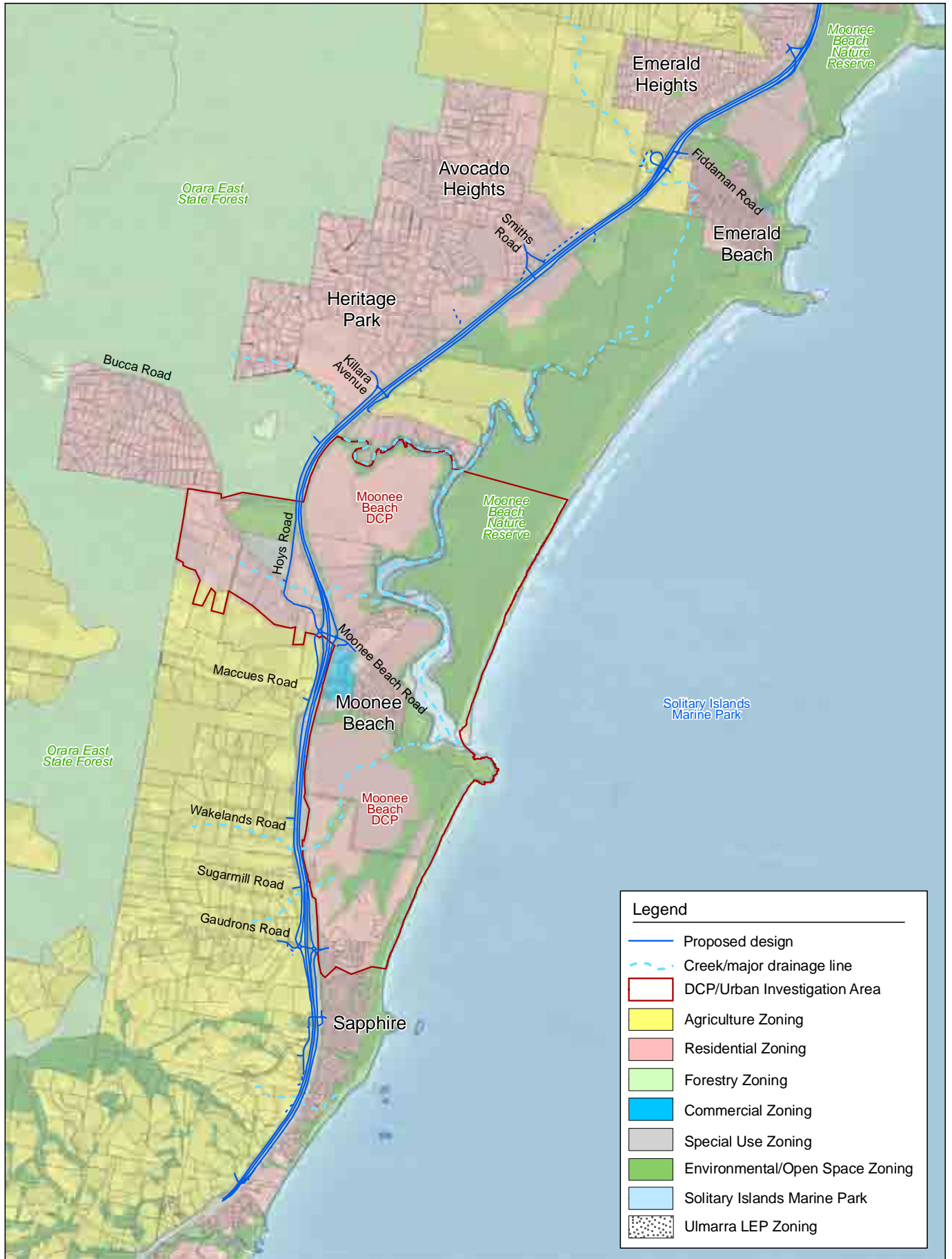
There are other rural-residential settlements to the west of the existing highway on the northern beaches. Situated between the coastal towns of Moonee Beach and Emerald Beach: Avocado Heights, Heritage Park and Emerald Heights are all rural-residential estates that rely on the settlements to the east of the highway for the supply of goods and services.

4.2 Existing land use

As noted above, land use along the proposed highway route is highly variable with mixed residential, tourism, rural residential, agricultural, recreational, conservation and forestry uses (see Figures 4.1a and 4.1b).

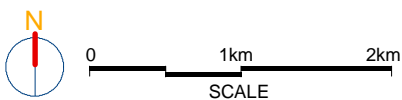
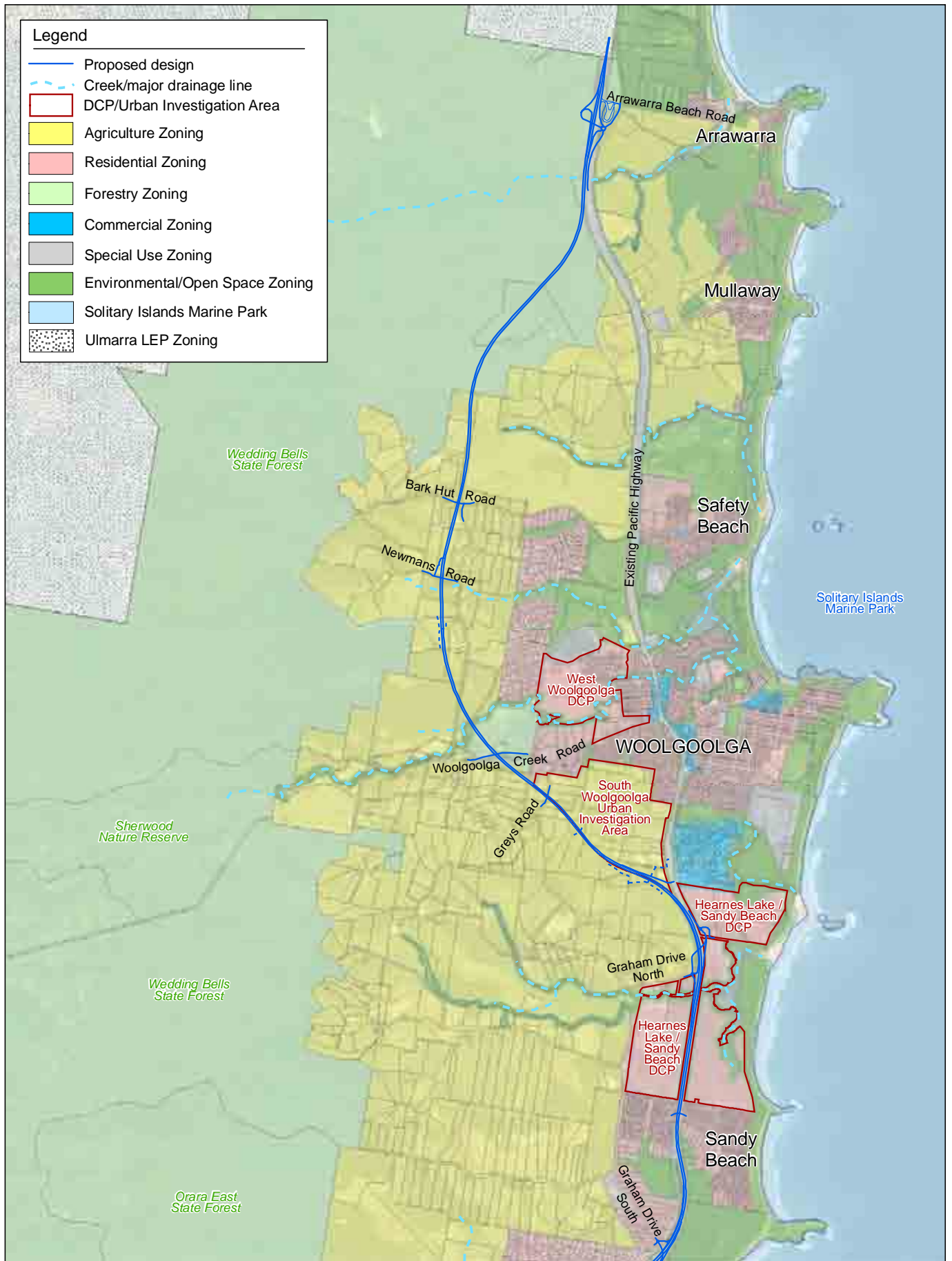
4.2.1 Rural Land

Rural land use in the study area comprises forestry, agricultural and rural-residential uses.



Source: Coffs Harbour LEP 2000 (Coffs Harbour City Council)

Figure 4.1a
Existing Land Use



Source: Coffs Harbour LEP 2000 (Coffs Harbour City Council)

Figure 4.1b
Existing Land Use

Agricultural land use is generally situated to the west of the existing highway, away from the urban and smaller village centres. The main agricultural activities are banana growing, other cultivation such as blueberries, cattle grazing, or a combination of agricultural uses. Although banana plantations are the dominant crop, in the past 10 years there has been a decline of approximately 5% per annum in the number of hectares of bananas. A more recent increase in other crops such as blueberries has been notable in the study area.

Forest lands form a westerly boundary to most of the urban and rural development of the study area and include the Wedding Bells State Forest, Conglomerate State Forest and Orara East State Forest. To the west of Woolgoolga and bisecting Wedding Bells State Forest, is the state heritage listed Sherwood Nature Reserve (part of the high conservation value old growth forest).

The forests within the study area are commercially logged for timber. They accommodate recreational uses and also provide for the conservation of old growth and biologically significant forest. The State Forests are divided into Forestry Management Zones (FMZs). The design of the Proposal was developed in a manner that minimised the impact on specific areas within the Wedding Bells State Forest (particularly Zone 3A) that are zoned for conservation and protection.

4.2.2 Commercial land

Along the upgrade section between Sapphire and south Woolgoolga, there are numerous commercial properties, mostly tourist and accommodation facilities. Some, such as the Nautilus and Aqua Luna Resorts at Sapphire have direct access onto the highway. Other commercial properties in the upgrade section along and near the existing highway include businesses such as a service station, shop, nursery and kennels.

Commercial properties along the Woolgoolga bypass section include a landscape supplies operation and numerous agricultural businesses.

The Woolgoolga commercial area is the dominant business precinct in the study area and the more recently opened Moonee Beach shopping centre is another large commercial zone. There are a number of commercial properties within Woolgoolga along the existing highway that have some reliance on passing trade, including service stations and motels. Woolgoolga provides key services to the rural areas and smaller coastal villages in the north beaches section of the Coffs Harbour local government area.

4.2.3 Residential land

The main urban precincts within the study area include Sapphire, Moonee Beach, Emerald Beach, Sandy Beach, Woolgoolga, Safety Beach, Mullaway and Arrawarra. In addition, there are numerous rural residential precincts including west Sapphire, Forest Glen, Heritage Park, Avocado Heights, Emerald Heights and the Country Club Estate to the west of Woolgoolga. Smaller rural residential development is interspersed elsewhere in the study area.

In 2001, the number of private dwellings within the Coffs Harbour LGA was 26 437, an increase of 9% from 1996. The most dominant private dwelling type was detached housing, accounting for 65% of all dwelling structures within the LGA.

Population predictions for the Coffs Harbour LGA indicate that around the year 2030, the population could reach approximately 100 000. As such, there has already been an increase in the number of dwellings being built to accommodate the predicted increase in population. In the period of 2004/2005, the total number of residential dwelling planning approvals was 784, an increase of 15.5% from the

previous year. The population along the northern beaches area of the LGA is predicted to increase from 19 558 in 2004 to approximately 36 770 in 2030 (Coffs Harbour Land Capacity Assessment 2004).

4.3 Land development activity

Since development of the Sapphire to Woolgoolga upgrade project started in 2001, there have been no new releases of unzoned lands for rural and urban development. Development that has occurred since 2001 includes:

- Infill development within the established coastal villages and within the rural-residential estates such as Heritage Park and Country Club Estate.
- Subdivisions particularly in the existing rural residential estates of Heritage Park and Avocado Heights
- Smaller subdivisions on the fringe of coastal villages including Sapphire and Safety Beach.

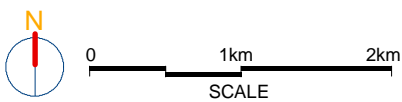
In 2004/2005, Council received 1938 development applications, making it the fourth straight year of high DA numbers. In the area covered by the Moonee Beach Development Control Plan, a number of substantial residential DAs have been submitted and/or approved by Council in 2006. One includes approval for 131 dwellings, and another for subdivision in 57 lots. Other areas where there have been large development applications include Emerald Beach (approval for a 173 dwelling Seniors Living Centre and Village Centre), West Woolgoolga (application for a 25 lot subdivision) and Hearnes Lake (application for an 86 lot and a 295 lot subdivisions).

Although most new development along the northern beaches in recent years has been residential, consent was granted in 2004 for the new shopping centre at Moonee Beach, adjacent to the intersection of the Pacific Highway and Moonee Beach Road. This development also prompted substantial reconstruction / re-configuration of the Pacific Highway / Moonee Beach Road intersection and approaches. In May 2007, approval was obtained for the redevelopment of the former Pelican Beach resort at Sapphire to cater for both tourists and residents.

In its Land Capacity Assessment, Coffs Harbour City Council has estimated that there are approximately 3 546 existing or planned dwellings (i.e. approved dwellings) within the study area that could help accommodate the increase in population. Within the same area, Council has estimated that there could be an additional 1 006 dwellings built within land that has the potential to become residential land to accommodate the anticipated population increase. Potential residential lands range from small yielding locations such as Tiki Road with potential to house nine people, to larger locations such as the south Woolgoolga Urban Investigation Area which has the potential to house 1250 people (refer Figure 4.2a and 4.2b).

Council has conducted preliminary assessments of the south Woolgoolga Investigation Area and it is expected that more detailed investigations would be undertaken to determine whether the area is suitable for re-zoning from its existing rural zoning to make some form of urban development a permitted use.

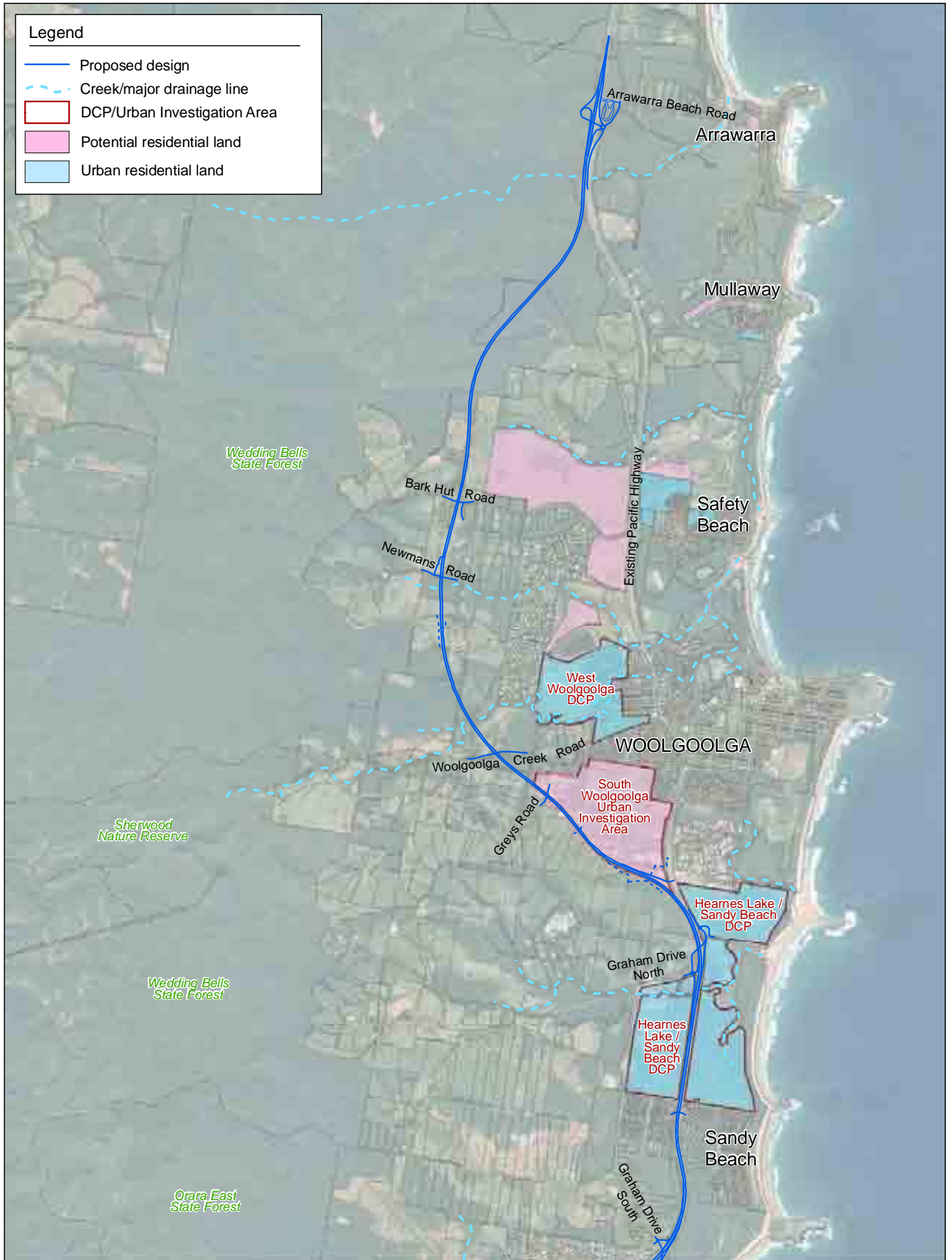
In order to control development within the study area, Council has developed a series of location-based Development Control Plans. An overview of these plans is provided below in terms of the relationship to the Proposal and the potential impacts for the expected land use and development.



Source: Coffs Harbour Land Capacity Assessment 2004
(Coffs Harbour City Council)

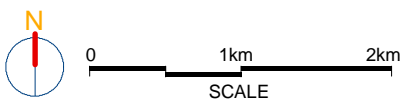
Figure 4.2a

Potential residential areas



Legend

- Proposed design
- - - Creek/major drainage line
- DCP/Urban Investigation Area
- Potential residential land
- Urban residential land



Source: Coffs Harbour Land Capacity Assessment 2004 (Coffs Harbour City Council)

Figure 4.2b
Potential residential areas

4.3.1 Korora Development Control Plan (2004)

The Korora DCP applies to an area of generally rural lands just north of Coffs Harbour and to the west of the Pacific Highway. The Plan details a Masterplan for the management of development within this area, which will ultimately accommodate about 1 500 people, inclusive of the existing population.

The Plan has not taken into consideration the Pacific Highway Upgrade including the proposal for mainly partial acquisitions of highway fronting properties in this southern section of the study area. There are various access strategies addressed within the Plan, one being the closure of the intersection of Old Coast Road and the highway. This closure forms a part of the highway upgrade proposal, with Old Coast Road proposed to be connected to the local access road on the western side of the highway and linked over the upgraded highway to Headland Road at Sapphire.

4.3.2 Moonee Development Control Plan (2004)

The Moonee DCP relates to the area between Split Solitary Road and Moonee Creek on the eastern side of the highway, as well as an area of land on the western side of the highway generally between Hoys Road and Maccues Road. The Plan provides a number of strategies for development in this area, including housing, traffic and transport, community facilities and services, business, natural environment, urban design, recreation and open space, and servicing strategies. More specific planning controls are in place for the control of urban development within the area, and include aspects such as density, bushfire hazards, noise and archaeology.

The Plan had anticipated a major upgrade of the Pacific Highway along the current route and it also anticipated a full grade separate interchange at Moonee Beach Road to facilitate local access to and from this emerging urban area. In this regard, the Proposal would have minimal impact on the release area lands as it would be substantially contained within the existing highway road reserve.

The access strategy for the DCP provides for access to the highway via Split Solitary and Moonee Beach Road with an internal collector road, to minimise the number of intersections with the highway. While there would be minimal direct impact upon land within the Moonee Beach DCP area, the Sapphire and Moonee Beach interchanges have been developed in order to cater for the future residential development and traffic movement to and from the highway expected within this area.

An additional feature of the Proposal not anticipated in the DCP is the proposed local access road along the western side of the highway between Gaudrons Road and Hoys Road. This would provide access to the existing rural residential communities on the western side of the highway as well as alternative access for the western precinct of the DCP.

Overall, it is concluded that the highway upgrade proposal is compatible with and facilitates the land use and development plans envisaged in the Moonee DCP.

4.3.3 Hearnese Lake / Sandy Beach Development Control Plan

The Hearnese Lake / Sandy Beach DCP includes several precincts between Sandy Beach and the Bosworth Road industrial estate on the eastern side of the highway and adjacent to Graham Drive on the western side of the highway. The Plan controls urban development within this area which is expected to house approximately 1 350 people.

The Plan contains a number of strategies that addresses issues such as housing, traffic and transport, community facilities and services, business, natural environment, urban design, recreation and open space, and servicing requirements. More specific development controls also deal with matters such as subdivision, driveways, natural and habitat areas and cultural heritage management.

The Plan was prepared in the knowledge of the preferred route for the highway and it therefore allows for the amplification in this area and the proposed south Woolgoolga interchange. Indeed, it also acknowledges that the envisaged urban development in areas around Hearnese Lake Road and Graham Drive will not be able to proceed until the completion of the highway project. This is influenced mainly by the significant new local access road arrangements associated with the upgraded highway, including the separation of through and local traffic and closure of existing intersections with Hearnese Lake Road and Graham Drive north.

4.3.4 West Woolgoolga Development Control Plan

The West Woolgoolga DCP came into effect in 2004 and it controls development in this area that allows for 330 residences and hence, about 950 people (CHCC, Land Capacity Assessment 2004). The DCP addresses issues such as road design, access and movement.

The subject area was traversed by the discarded Option C and C1 route options, but the Proposal does not have any direct impact on the DCP. The Plan requires an acoustic report to be prepared for housing proposals within 300m of the Pacific Highway to ensure that future residents are not exposed to unacceptable traffic noise levels. At its closest point, the proposed bypass would be more than 300m from the DCP lands.

4.4 Land tenure and acquisition

Most of the land within the study area is privately owned freehold land but with some parcels of land owned by public authorities, including Coffs Harbour City Council, the RTA, Department of Primary Industries (Forests NSW) and other government departments. There are also a number of properties within the study area that are owned by Yarrawarra Aboriginal Corporation and the Coffs Harbour and District Local Aboriginal Land Council. Although it uses the existing highway road reserve, the upgrade section would require acquisition of many freehold parcels, many as partial strip type purchases. In contrast, the bypass section relies entirely on acquisition of freehold lands and State Forest land (see below). This would entail purchase of numerous properties which are mainly in rural use (for both agriculture and residential purposes). The extent of and process for these acquisitions is addressed in more detail in section 5.5.1.

The other notable land tenure of the study area are the public land holdings of the Department of Environment and Climate Change (Moonee Beach and Sherwood Nature Reserves) and the Department of Primary Industries (Wedding Bells State Forest). While the Proposal would not directly affect any lands in Nature Reserves, there would be substantial acquisition (47 hectares) of State Forest lands in the northern section of the route (refer section 5.5.1).

5. Existing community profile

5.1 Introduction

The mid-North Coast region of NSW comprises the local government areas (LGA) of Bellingen, Coffs Harbour, Gloucester, Greater Taree, Great Lakes, Port Macquarie-Hastings, Kempsey and Nambucca. The Coffs Harbour LGA is one of the fastest growing regions in NSW (Coffs Harbour City Council, 2004c). Important characteristics of the mid-north coast include its popularity as a tourist destination, its growing attraction for retirees and others migrating from large urban areas in NSW, Victoria and Queensland, its historic reliance on agriculture as a mainstay of the regional economy and its sensitive biophysical environment.

The Coffs Harbour LGA is located approximately 550 km north of Sydney and covers an area of 1174km². The estimated population for the Coffs Harbour LGA at June 2004 was 66 529 (Coffs Harbour City Council, 2005) with the majority of the population located along the coast. Major urban centres in the LGA are Coffs Harbour, Sawtell and Woolgoolga. Major industries within the LGA include retail trade, construction and property and business service sectors (Coffs Harbour City Council, 2005).

The study area is located between 8km and 33km north of Coffs Harbour and comprises a number of discrete urban settlements, rural residential development and rural / agricultural development. Key features of the community structure of the study area are:

- Woolgoolga: The largest urban settlement in the study area. In 2001, Woolgoolga had a population of 4 526 comprising 7.2% of the LGA (Coffs Harbour City Council, 2004c). The majority of urban development within Woolgoolga is located on the eastern side of the Pacific Highway. Development in Woolgoolga is diverse with mixed residential use, a range of commercial / retail business, substantial tourism and holiday accommodation development and a variety of community services and facilities including health, education, entertainment and recreation. Significant rural residential development including Country Club estate is located west of Woolgoolga, predominantly along Bark Hut, Newmans and Woolgoolga Creek Roads. Consultation with stakeholders has indicated that residents of these rural residential areas identify strongly with the Woolgoolga community.
- Arwarra / Mullaway / Safety Beach: Three discrete, but proximate coastal settlements, located north of Woolgoolga on the eastern side of the Pacific Highway. In 2001, the combined population of these three settlements was 2 430 (Coffs Harbour City Council 2004a). Development within each of these settlements is predominantly residential with limited commercial development.
- Sandy Beach / Emerald Beach: Two discrete, but proximate, coastal settlements located south of Woolgoolga adjacent to the existing highway. In 2001, the combined population of these settlements was 3,651 people. Development within each of these settlements is predominantly residential with limited commercial development. They rely on Woolgoolga to provide services such as health, retail and business. A distinct feature of Sandy Beach is that it includes urban areas both side of the existing highway and is the only settlement in the study area which does not have direct access from the highway. Access is available only from Graham Drive and via an overbridge crossing the highway at Diamond Head Drive for the eastern section of Sandy Beach.
- Sapphire / Moonee: Two discrete, but proximate, coastal settlements located to the south of Woolgoolga on the eastern side of the highway. In 2001, the combined population of these settlements was 3 456 people (Coffs Harbour City Council, 2004c). Development in these settlements is predominantly residential with commercial development mainly in the form of tourist and holiday accommodation as well as the relatively new Moonee shopping centre. Coffs Harbour is a key community and business hub for these localities in terms of health services, major stores, education, and business facilities.

- Rural residential areas: There are several large rural residential areas within the study area including precincts between Sapphire and Moonee, Forest Glen, Heritage Park, Avocado Heights and Emerald Heights and the Country Club estate west of Woolgoolga. The majority of the rural residential development is located to the west of the highway.
- Rural / agricultural development: There are many smaller rural living areas and agricultural properties interspersed through the study area, again mostly to the west of the existing highway.

5.2 Demographic profile

In order to predict potential social impacts due to the highway upgrade proposal, the demographic profile of the community in question needs to be understood. The following section focuses on the community within the study area and includes data for the entire LGA and the region for comparative purposes where appropriate. Information used in the development of the profile has been sourced largely from data provided by Coffs Harbour City Council, as well as data from the 1996 and 2001 Census of Population and Housing.

5.2.1 Population

The NSW North Coast is one of the fastest growing regions in NSW. Data obtained from the 2001 Census shows an annual growth rate of 1.9% for the Coffs Harbour LGA between 1991 and 2001 (refer Table 5.1). This is higher than the Mid-North Coast Statistical Division (1.4%) and NSW (1.1%) for the same period. In 2005, Coffs Harbour LGA accounted for 22.8% of the population of the Mid North Coast Statistical Division and 1% of the whole of NSW. Table 5.1 provides population counts for selected areas in 1991, 1996 and 2001 and identifies the annual growth rate for each.

Table 5.1: Population Data

Locality	1991 Population	1996 Population	2001 Population	Annual Growth Rate (1991-2001)
New South Wales	5 732 032	6 038 696	6 371 745	1.1%
Mid-North Coast Region	240 753	262 985	275 274	1.4%
Coffs Harbour LGA	51 520	58 337	61 635	1.9%
Arararra, Mullaway, Safety Beach	2 033	2 333	2 430	1.9%
Woolgoolga	4 165	4 493	4 526	0.8%
Sandy Beach, Emerald Beach	2 637	3 373	3 651	3.8%
Moonee, Sapphire	2 187	2 910	3 456	5.8%

Historically, along the mid-north coast the population has been increasing, and this trend is expected to continue, with the area becoming a popular destination for retirees and sea-changers. Population growth projections for the next 30 years indicate that Coffs Harbour will continue to grow rapidly. By 2030 the population is estimated to be in the vicinity of 100 000 (Coffs Harbour City Council, 2004a). Coffs Harbour, like other coastal locations on the Mid-North Coast's coastal fringe, will continue to attract "baby boomers" and people wanting a different, more relaxed lifestyle from metropolitan areas and rural inland areas.

The overall land capacity needs of the LGA are outlined in Table 5.2.

Table 5.2: Land Capacity Needs of the Coffs Harbour LGA

Land Capacity Needs	Persons
Estimated 2004 Population	67 000
Estimated 2030 Resident Population	100 000
Need to Accommodate	33 000
Existing land use zones can accommodate	26 000
Need for new land use zones to accommodate	7 000

(Source: Coffs Harbour City Council, 2004b)

The Land Capacity Assessment prepared by Coffs Harbour City Council identifies land that is already zoned for urban development (un-subdivided land and infill development) and areas potentially suitable for future urban development. Table 5.3 summaries the assessment's findings.

Table 5.3: Future Development in the LGA

Location	Predicted 2004 population	No of potential dwellings on zoned residential land ⁱ	No. of potential dwellings on proposed residential land	Potential increase in population	Predicted 2031 population
Coffs Harbour Rural	2236	36	0	90	2326
Nana Glen/Bucca	1542	60	25	243	1785
Ulong	107	10	0	29	136
Coramba	302	38	73	320	622
Bonville	1943	247	140	890	2833
West Boambee	1798	0	40	166	1914
Sawtell/Toormina/East Boambee/ North Bonville	14875	828	0	2788	17,663
Coffs Harbour Urban	25529	2916	1033	12,480	38,009
Korora	3247	509	500	2673	5920
Moonee / Sapphire	3908	1694	0	5397	9305
Sandy Beach / Emerald Beach	3810	656	127	1917	5727
Woolgoolga	4646	1074	500	3550	8196
Ararawarra, Mullaway and Safety Beach	2487	482	157	1638	4125
Red Rock/Corindi	1492	404	150	1453	2945
Total	69,057	8249	2895	35,394	104,451

Table 4.3 shows that an additional 35,400 people could be housed within the Coffs Harbour LGA. Within the study area, there is the potential that the number of potential dwellings on currently zoned residential land total 3906. An additional 787 dwellings could be built on land that is proposed to be zoned residential land in future. It is anticipated that this potential dwelling yield would accommodate an additional 12, 502 people within the study area (from the projected 2004 population) by 2031.

On 5 July 2007, Council adopted the *Our Living City Settlement Strategy* (Coffs Harbour City Council 2006) The *Our Living City Settlement Strategy* predicted a population of 30,619 for the Northern

Beaches area (which in addition to the four localities shown in Table 16.3, includes Red Rock / Corindi Beach / Corindi Plateau and Korora). The *draft Mid North Coast Regional Strategy* land supply calculations were used in the development of the Our Living City Settlement Strategy. While there are some differences with the population predictions included in the Our Living City Settlement Strategy (compared to the Land Capacity Assessment), the overall predicted 2031 population of 27,353 for the localities shown in the table is generally consistent to the Strategy's prediction for the Northern Beaches area.

5.2.2 Age profile

The Mid-North Coast region of NSW is aging more rapidly than the State as a whole. This reflects its continued popularity as a destination for retirees. The median age of the region in 2001 was 41 years old, an increase from 39 years old in 1996. People over the age of 65 make up 16% of the population, higher than the NSW average of 13% in 2001. The population of over 65s in the LGA has been increasing more rapidly than other age groups since 1991, however, this is not a region-specific trend as it was also recorded at State level. In terms of the Coffs Harbour LGA, Table 5.4 provides details on the age distribution based on the 2001 census and changes in the distribution since 1991.

Table 5.4: Age Distribution in the Coffs Harbour LGA 1991 to 2001

Age Group (Years)	1991 Population	2001 Population	Coffs Harbour LGA % Change	NSW % Change
0-4	3 997	3 838	-3.9	-0.8
5-9	4 234	4 444	4.9	6.6
10-14	4 128	4 899	18.7	7.1
15-19	3 636	4 479	23.1	0.42
20-29	5 932	5 721	-3.5	-3.7
30-39	8 223	7 669	-6.7	5.5
40-49	6 785	9 519	40.2	20.5
50-59	4 695	7 653	63	39.8
60-64	2 559	3 083	20.4	5.8
65 +	7 115	9 881	38.8	22.8

The decrease in the number of 0-4 year olds in the LGA is much higher than the 0.8% change recorded at the NSW level. Persons over 40 years make up over half of the population in the Coffs Harbour LGA, with dramatic increases in that age band in the ten years to 2001. This shows the general trend of the LGA as being popular with retirees and people looking to have a more relaxed lifestyle. It is also generally consistent with the data at state level, which shows a declining birth rate and an aging population.

5.2.3 Employment and income

Centrally located between Sydney and Brisbane, Coffs Harbour is a regional employment and economic centre. It serves as a sub-regional centre supported by Woolgoolga and Sawtell as district centres. Linking the three centres is the Pacific Highway, which runs adjacent to the coast through the area. In 2001, the retail sector was the largest employer in Coffs Harbour, accounting for 19.4% of total employment. The second largest industry health and community services (11.0%) followed by accommodation, cafes and restaurants (9.0%). The biggest increase in jobs during the ten years to 2001 was in construction, retail trade, accommodation, cafes and restaurants, and service industries. Between 1991 and 2001 employment increased 82.5% in health and community services, this being largely attributed to the completion of the Coffs Harbour Health Campus (Coffs Harbour City Council, 2004a).

In the ten years to 2001, there has been a decrease in the unemployment rate, from 17.3% down to 12.4% (Coffs Harbour City Council, 2004c). Although the unemployment rates are comparable to that of the Mid-North Coast, it is much higher than the NSW estimated unemployment rate of 7.2% in 2001. The unemployment rate is higher for men than for women, reflecting the decline in full time jobs and the greater take-up of part-time positions by women. Within Woolgoolga, the 2001 unemployment rate, at 18.6%, is significantly higher than the LGA average. This locality also has the highest proportion of the population not in the labour force (Coffs Harbour City Council, 2004a).

Fifty-three percent (53%) of the Coffs Harbour population is on low-average weekly income (brackets \$300- \$599 and \$600- \$1000), which is considerably higher than the 39% figure for NSW. In the higher income bracket, 21% of the population in Coffs Harbour earns over \$1000 a week, compared to 37% in the state. Incomes within Woolgoolga tend to be lower than the LGA as a whole.

5.2.4 Housing and accommodation

Approximately 88% of the Coffs Harbour LGA population live within the narrow coastal plain extending 51km from Bonville in the south to Arrawarra in the north. Of the 2001 population, an estimated 37.4% live in the main Coffs Harbour urban area, 22% in Sawtell / Toormina / Bayldon, 7.2% in Woolgoolga and 21.5% in the remaining coastal villages. Approximately 12% of the population live west of the coastal range (Coffs Harbour City Council, 2004c).

The number of private dwellings in the Coffs Harbour LGA has increased from 23,598 in 1996 to 26,437 in 2001 (the 2001 figure also includes figures for Red Rock/ Corindi¹). The overall annual increase in housing stock is 9%, which is higher than the state average of 5.9%. Detached dwellings are the dominant form of dwelling type, increasing from 63% of the housing stock in 1996 to 65% in 2001. Detached housing is expected to continue to be the main form of housing in the City (Coffs Harbour City Council, 1997). Over 62% of housing in the study area is privately owned or being purchased. Another 30.6% of dwellings are being rented.

Settlement patterns have wide ramifications for transport planning, economic development and social development. Decreasing home occupancy rates compound increasing pressure from a growing population. This means more dwellings are required per head of population. These two factors of population growth and decreased occupancy rates create a demand for additional housing and infrastructure.

5.2.5 Place of birth and ethnicity

Information from the 2001 census has identified Australia as the most common birthplace of residents in the Coffs Harbour LGA (83%). The next most common birthplaces were the United Kingdom (4.7%), New Zealand (1.3%) and India (0.6%). Approximately 92% of the population speaks only English at home. At the State level, the three most common birthplaces are Australia (69%), United Kingdom (4.3%) and New Zealand (1.6%). Although India is not the fourth most common birthplace at state level, it comprises 0.6% of the population like Coffs Harbour LGA.

As Woolgoolga has one of the largest and most established Sikh communities, a separate Sikh Cultural Assessment was undertaken as part of the environmental assessment to specifically address concerns regarding potential impacts from the Proposal.

¹ The inclusion of Red Rock/Corindi is due to a change in the local government area boundaries. Red Rock/Corindi was amalgamated into Coffs Harbour LGA from the Pristine Waters LGA.

5.2.6 Indigenous persons

The 2001 census recorded a total of 1 809 people of indigenous descent within the Coffs Harbour LGA, representing 3% of the population, compared to 2% of the NSW population. Within the study area, indigenous communities are focused at Corindi and Red Rock with the Yarrowarra Cultural Centre forming an important resource for the community.

5.3 Study area demographic features

This section provides a more detailed account of the demographic characteristics of the main settlements in the study area.

5.3.1 Arrawarra / Mullaway / Safety Beach

- 2001 population of 2 430 persons, with an annual growth rate of 1.9%
- Highest proportion of 60 to 69 year olds and the lowest proportion of 0 to 4 year olds and 20 to 39 year olds in the LGA
- Unemployment rate 3% lower than the LGA rate A quarter of households in this locality earned between \$300 and \$499 per week
- Similar proportion of single dwellings as the LGA as a whole, while caravans represent over a quarter of the housing stock.

5.3.2 Woolgoolga

- The largest 2001 population of the study area (4 526 persons) with a slow annual growth rate of 0.8%.
- A popular locality for retirees, the highest proportion of people over 80 years of age and a higher than average proportion of 60 to 79 year olds. All other age groups are under-represented.
- Higher unemployment rate than the LGA average and also has the highest proportion of the population not in the labour force. Incomes in this locality tend to be lower than the LGA average.
- High proportion of caravans, which represent 10% of the housing stock. It has less than the LGA's average number of flats and semi-detached dwellings.

5.3.3 Sandy Beach / Emerald Beach

- 2001 population of 3 651 persons being the second highest annual growth rate in the study area of 3.8%.
- Predominantly populated by families with young children, with relatively few elderly people.
- Slightly higher percentage of unemployed people than the LGA as a whole. The labour force is 5% greater than the LGA average and the proportion of households earning between \$500 and \$999 per week is 6% higher than the LGA average.
- Over 85% of dwelling stock is single dwellings, higher than the LGA's average of 65%.

5.3.4 Moonee / Sapphire

- 2001 population of 3 456 persons is the largest annual growth rate (5.8%) of all settlements in the study area.
- Comprises more elderly families with teenage children with an average proportion of people over 60 years of age.
- Unemployment rate is less than the LGA average and incomes over \$1000 per week in this locality is 10% higher than the LGA average.
- Nearly 75% of its dwelling stock is separate dwellings.

5.4 Community services and facilities

Woolgoolga and the surrounding settlements contain a range of local services, while Coffs Harbour acts as a major regional centre with a more comprehensive range of services including government, health and higher education facilities.

The Woolgoolga Town Centre Study included an analysis of existing community facilities and services (Coffs Harbour City Council, 1996) and the priorities for the future provision of facilities and services. It found that community facilities serve a diverse and large population catchment extending from Bucca Road and Moonee Creek in the south, the North Coast railway to the west and the LGA boundary to the north. The demographic characteristics of the study area requires a correspondingly diverse range of community services including facilities for elderly people, childcare services and schools. The majority of local services are located within Woolgoolga town centre and the population in the catchment is required to travel to the services. Travel to Coffs Harbour and / or Grafton is required for regional services.

The largest educational facility within the Coffs Harbour LGA is the Coffs Harbour Educational Campus. Elsewhere in the LGA, there are five state and three private secondary schools, seventeen state and five private primary schools and 31 pre-schools and child care centres. Other educational facilities include the North Coast Regional Botanical Gardens and the National Marine Science Centre (Coffs Harbour City Council, 2004c).

Local health services are provided in Woolgoolga and the nearest hospital being located in Coffs Harbour (Coffs Harbour Health Campus and Baringa Private Hospital). In the study area, there are about 60 general practitioners and 22 dentists. There are also other specialists and medical practitioners within the study area (Coffs Harbour City Council, 2006).

There is a large representation within the Coffs Harbour LGA of Christian churches and community facilities. Churches within Woolgoolga include St Augustine's Anglican Church, St Francis Xavier as well as churches from other Christian denominations. As well as Christianity, Sikhism is represented within the area through the two Gurdwaras: the Guru Nanak temple and the First Sikh temple located in Woolgoolga. The temples play an important role in the provision of support and services for the local Sikh community. Also within Woolgoolga is the Woolgoolga Neighbourhood Centre, which provides community information as well as services.

As the largest town within the study area, Woolgoolga is the base for emergency services including police, ambulance, fire brigade, sea rescue and rural fire service.

Professional services (such as legal, accounting and banking) are provided locally in Woolgoolga with a more comprehensive range of services provided in Coffs Harbour. Aged care is provided primarily through the Woolgoolga and District Hostel and Retirement Village. The provision of additional aged care facilities, including outreach programs, is seen as a future challenge for the area given the ageing nature of the population.

Recreation facilities in the area are largely associated with the beaches. A need for a wider range of recreational facilities including sporting and bicycle facilities was identified in the Woolgoolga Town Centre Study.

5.5 Transport and access

Settlement patterns and transport are inextricably linked. The linear form of urban settlement together with the low housing density has made it difficult to develop an affordable public transport system

within the Coffs Harbour LGA. Cars are the most commonly used form of transport in the study area. 77% of people travel to work and of this number, 76% use their cars (Coffs Harbour City Council, 2004c). This reliance on cars is not only less desirable with respect to the environment, but at odds with Coffs Harbour's social structure which comprises lower household incomes and a higher proportion of elderly than the State average.

The Pacific Highway is the dominant transport link in the Coffs Harbour LGA, carrying almost 40,000 vehicles per day north of High Street in Coffs Harbour (in 2004), an increase of 43% from 2001. The 2004 average annual daily traffic (AADT) north of Clarence Street in Woolgoolga is 18,527, reducing to 10,890 north of Arrawarra Creek (Connell Wagner, Traffic and Transport Assessment, 2007).

Some 90.7% of tourists to the area travel by road. The volume of traffic on the highway, particularly around holiday periods, generates conflict with local users, making it difficult for accessing and crossing the highway, moving around and between the town centres and parking. High traffic volumes through the centre of towns can also cause a severe reduction in amenity.

Access to the towns and villages of the LGA is predominantly via the Pacific Highway, and the Coffs Harbour State of the Environment Report 2004 notes that issues concerning community segregation, safety, aesthetics, noise and air pollution should be at the forefront of future decisions concerning the long-term development of the Highway.

Within the study area, there are three operators that provide bus services, being Ryans Bus Service, Busways Services and Sawtell Coaches. Ryans Bus Services operates a regional bus service between Coffs Harbour, Woolgoolga and Grafton that services areas such as the Country Club Estate, Safety Beach, Mullaway, Arrawarra, Sapphire, Moonee, Emerald Beach and Sandy Beach. They also operate numerous school bus routes in the study area, utilising the bus interchange at Korora. In terms of regional services, Greyhound Coaches (five services daily) and Premier Coaches (three services daily) operate from Sydney and Brisbane and pass through Coffs Harbour with stops in the study area.

Access to Coffs Harbour by rail is limited to three northbound and three southbound passenger services per day (Sydney-Brisbane/Casino route) with the only passenger railway stations at Sawtell and Coffs Harbour.

Coffs Harbour Airport provides an alternative means of transport to the mid-North Coast, with three regular passenger airlines (Qantas, VirginBlue and Brindabella Airlines) currently servicing the airport and connecting the city to other regions. The airport handles about 30,000 aircraft movements a year, 5,000 of these being passenger flights. Approximately 260,000 passengers use the airport annually.

5.6 Business activity

Within the Coffs Harbour LGA, the main primary sector activities include agriculture (predominantly bananas, fishing, forestry and extractive industries). Industrial activity within the LGA occurs in five main areas, being Coffs Harbour, Coffs Harbour South, Coffs Harbour Jetty, Woolgoolga and Sawtell. Building construction and food manufacturing are the major contributors to the local economy. The contribution of the services sector (wholesale and retail trade, finance, business and professional services and health, community and cultural services) to the local economy is expected to increase. The services sector is focused on Coffs Harbour city.

The largest industry outputs come from the property and business services sector (\$455.1m in 2001) and retail trade (\$288.6m in 2001). The wholesale and retail sectors are highly dependent on the seasonal tourist trade (particularly Coffs Harbour) and big increases in these business sectors in the past 10 years show the increasing dominance of tourism in Coffs Harbour's economy (Coffs Harbour

City Council, 2004a). The largest increase in output in the past 10 years have come from the government, administration and defence sector which saw an increase in output of 62%. Other big increases came from the health and community services sector and the education sector, both increasing by 53%. The 2004 / 2005 gross regional product of the Coffs Harbour LGA was estimated at \$1,689.4m. This made up 22% of the gross regional product of the Mid-North Coast Statistical Division and 0.6% of the Gross State Product (Coffs Harbour City Council, 2005).

Agricultural production represented approximately 1.2% of the total industry output for the Coffs Harbour area. Banana production remains the most significant agricultural activity, however there has been a steady decline in banana plantations in the region in the past ten years, with blueberries becoming the fastest growing crop. However, other fruits and vegetables are also grown including avocados and tomatoes.

Within the study area, the focus of economic activity is Woolgoolga and it is an important hub, providing a number of key services for surrounding beachside villages. It provides a support role to the major regional centres of Coffs Harbour and Grafton.

Sixteen percent of jobs in Woolgoolga are related to agriculture, which indicates the continuing significance of the banana and other produce industries in the business activities of Woolgoolga. In 2004 / 2005, agriculture, in combination with fishing and forestry accounted for 2.8% of the gross regional product. Hartley Associates International (The Impact on Agricultural Lands of Pacific Highway Upgrade: Sapphire to Woolgoolga, 2007) report that the Banana Industry Council estimates that 450 hectares are under banana plantations north of Bucca Road, with an additional 500 hectares around Coffs Harbour.

Coffs Harbour City Council has identified three main business precincts in Woolgoolga as follows:

- Beach Street Precinct – effectively the town centre and main commercial precinct. It contains a variety of retail and service based businesses including numerous operations catering for the tourist market.
- Pacific Highway Precinct - extends for approximately 300m north of the Pullen Street / Pacific Highway intersection. This precinct is dominated by motorist / tourist related uses including two service stations and three motels. Council notes that this precinct relies on highway traffic.
- River Street Business Precinct - located between the highway and Beach Street and contains number of automotive related uses, agricultural supply outlets, speciality shops and fast food outlets.

Businesses within Woolgoolga generally serve a local function with a limited reliance on passing trade on the highway. Businesses provide products and professional services to cater for the local population. Aside from the transient tourist and visitor population, Council has defined a trade catchment served by Woolgoolga as extending from Halfway Creek and Red Rock in the north, to Upper Corindi in the west and Emerald Beach in the south (Coffs Harbour City Council, 1996).

In order to minimise the escape of expenditure from the local area to Coffs Harbour and other larger centres, the Woolgoolga Chamber of Commerce is instituting programs to encourage patronage of local businesses. Council and the Chamber of Commerce are also investigating mechanisms to encourage relocation of businesses to Woolgoolga from surrounding areas and further a field.

In addition to commercial business, Woolgoolga has an industrial estate of some 31.3 hectares located in south Woolgoolga. Business types include mechanics, auto electricians, plumbers, panel beaters, painters etc.

5.7 Tourism activity

Tourism NSW (2005) has produced data for the North Coast tourism region providing a broad overview of patterns and trends in tourism in the region that are also of relevance to the study area. In the year ending September 2005, the North Coast region had 3.1 million domestic overnight visitors. Another 145,000 were international visitors. Although the international visitor data was unreliable, domestic visitors spent almost 12.8 million nights in the region, a decline of 2.1% from the previous year.

The Coffs Harbour Economic Profile 2005 identifies road transport as the main form of transport for tourists, with the majority of visitors to the area travelling by private car and a smaller number using air and an even smaller number using rail and coach transport. Trends for the Mid North Coast region indicate that the majority of visitors are from Sydney or elsewhere in NSW with 90.7% utilising car travel. The value of tourism to the local economy is seen as critical and protection and enhancement of the tourist industry is a key local business objective.

In terms of tourist activity within Woolgoolga, the main tourist attractions include the beaches, headlands, lake, flora reserve and surrounding countryside (Coffs Harbour City Council, 1996). Community consultation suggests that the 'village' type atmosphere of Woolgoolga and other northern beaches combined with the range of budget and family accommodation are key tourist attractors in the study area. Of the total visitors to Woolgoolga approximately 31% find accommodation with friends and relatives. Woolgoolga is considered to be a tourist destination in its own right with many regular annual visitors to the area. Community consultation indicates that day-trippers from Coffs Harbour also visit Woolgoolga and it is hoped to increase this trend with the development of more attractions within the town.

International and domestic overnight travellers, as well as domestic daytrip travellers come to the region overwhelmingly for holidays and / or leisure. A substantially lower number come to the region to visit family and friends, with the least likely reason for international and domestic overnight visits being for business. These features indicate that Woolgoolga and environs is a destination rather than a passing through point on a longer journey.

Tourist activity in the Mid- North Coast is a highly seasonal market with peaks during school and summer holidays. This results in tourist facilities (such as accommodation) being used for short periods at high use followed by prolonged periods of limited use.

6. Socio-economic impacts

6.1 Introduction

Major highway construction and changes to the local road network can have both positive and negative effects on people at an individual and community level. This section provides an essentially qualitative assessment of the potential impacts that could arise from the construction and operation of the proposed Sapphire to Woolgoolga upgrade.

For the purposes of the assessment, a number of categories of socio-economic issues relevant to the study area have been identified. These issues have been identified from experience with previous highway upgrade projects and an understanding of characteristics of the community within the study area, the latter including expressed attitudes and values in relation to the upgrade options during the route selection phase and subsequently during the design development of the preferred route. For each of the issues identified, a discussion of the related effects of the Proposal is provided.

The discussion of socio-economic issues is generally separated into the upgrade section between Sapphire and south Woolgoolga and the bypass section around Woolgoolga. As the upgrade section involves amplification of the existing highway, the focus of that part of the assessment has been on identifying any additional or incremental impacts that would result.

The socio-economic issues categories that have been considered include:

- Community cohesion: discussion in relation to the potential for the Proposal to introduce a physical or psychological separation between different community areas or to reinforce an existing severance. On the other hand, positive effects could include improved community interaction and cohesion such as through sympathetic consideration of existing and future land use patterns.
- Amenity effects: this issue relates to both positive and negative effects on the amenity or values of a place and is typically expressed through the key factors of noise impact, visual impact and air quality impact.
- Access and movement patterns: this issue relates to the ease and safety with which members of the community can move both within their community and externally to it. The issue is concerned mainly with local vehicular, pedestrian and cyclist movements.
- Land use and property impacts: this issue relates to broad land use impacts that would result directly or indirectly as a result of the Proposal and a more detailed analysis of effects on individual properties or groups of properties
- Effects on business: this issue relates to direct and indirect effects on business activity including employment and income.
- Effects on tourism: this issue could be regarded as a sub-set of the above issue, but given the importance of tourism to the study area's economic prosperity, has been considered separately in terms of likely direct and indirect effects. It is therefore concerned with the general attraction of the overall study area as a tourist destination as well as implications for specific facilities / features / places.

This socio-economic assessment draws on the information in the preceding sections of this report but also uses findings from a range of other assessments including the agricultural land use, traffic noise and landscape / visual studies.

It is recognised that several other project impact issues, such as road user costs and benefits and environmental costs and benefits can also be broadly applicable and relevant to the broad subject of socio-economic impacts. However, these are issues of significance in the context of the Proposal and as such, are the subject of separate working papers.

6.2 Community cohesion

Construction of the Proposal has the potential to disrupt the existing patterns of community interaction. The Proposal has the potential to create physical and psychological barriers for local neighbourhoods either by dividing contiguous groups or by forming barriers between communities and local facilities and/or services.

Impacts on community cohesion resulting from the Proposal could also be a positive one. The severity of impacts on community severance depends on existing patterns of land use settlement. The existing Pacific Highway alignment forms a significant physical barrier between Woolgoolga township and rural residential development to its west, and between east and west Sandy Beach.

Development of an improved transport corridor also has the potential to provide better linkages between communities by providing improved travel times, road network performance and road safety.

6.2.1 Upgrade section

Construction stage

Roadworks could see the temporary interruption of access along local access roads as well as travel along the highway. However, the RTA during the construction period would have a website and freecall line for the community to keep them informed about the roadwork programme.

However, any impacts during the construction stage would be temporary and transient, as the impacts would move as the construction moves, there would not be any lasting community cohesion issues.

Operational stage

The existing Pacific Highway already forms a significant physical barrier between some of communities within the study area including separating the rural residential estates of Heritage Park, Avocado Heights and Emerald Heights from the service providing towns to the east of the highway. The existing highway has, along with other physical and environmental factors, fundamentally influenced the form and separation of the many urban and rural settlements along the northern beaches of the Coffs Harbour local government area.

The upgrade section of the Proposal would involve amplification of the existing highway corridor, however this would not increase the level of separation between the discrete communities as much of the new highway is located within the existing road reserve. However, a range of features have been incorporated into the design to facilitate improved connectivity. Features include:

- A separate local road network,
- Construction of overbridges at Headland Road, Killara Avenue, Smiths Road and Graham Drive South,
- Construction of overbridges as part of the interchanges at Sapphire (Gaudrons Road / Split Solitary Road), Moonee Beach, Emerald Beach and Graham Drive North.
- Replacement of overbridge at Diamond Head Drive, Sandy Beach

These features would increase the sense of community cohesion as it would improve local access, enabling residents of the rural residential estates to the west of the highway to travel to and from the service providing towns to the east of the highway without having to access the highway. Residents from Emerald Beach, for example would be able to access the school in Emerald Heights without interacting with the highway.

Aside from the accessibility benefits of the proposed local access roads, all of the local communities in the study area will have the opportunity for access to the high standard dual carriageway via the planned interchanges.

6.2.2 Bypass section

Construction stage

During the construction phase, there is the potential that some local access roads would be temporarily closed to facilitate the construction of the bypass. However, during this construction stage, the RTA would have a website and freecall line for the community to keep them informed about the roadwork programme.

Any impacts would be temporary and transient, as the impacts would move as the construction moves, there would not be any lasting community cohesion issues.

Operational stage

In the bypass section, the Proposal has the potential to form a distinct physical and visual barrier between numerous rural properties. However, overpasses or underpasses are proposed at all public roads crossed by the Proposal (including Unwins Road, Greys Road, Woolgoolga Creek Road, Newmans Road and Bark Hut Road) to enable continued road access to the west of the route.

The location of the Proposal also provides greater cohesion between the urban residential areas within Woolgoolga, as the Proposal would facilitate the diversion of heavy vehicles from the existing highway, and as such, provide for improved access and connectivity for existing (and future proposed) development in the area. Properties between the existing highway and the Proposal, including the Country Club Estate, would be able to access Woolgoolga without having to cross a highway with heavy and through traffic.

6.3 Amenity effects

Amenity can be simply regarded as what people hear, see and smell and how this affects their sense of well being. It can be measured in terms of visual, noise and air quality impacts and changes in these aspects due to a change in proximity to (in this case) a new road structure and its associated traffic.

Visual changes include alterations to the existing landscape environment that are measured in terms of the following three factors:

- visual impact: which is greatest in areas where there is a substantial change to the homogeneity of the landscape;
- visual sensitivity: a measure of the visibility of the Proposal and the concern this causes for adjacent land users; and
- scenic quality: a measure of the visual variety and interest from the road users' perspective.

As well as visual amenity, there are other proximity effects resulting from new exposure to traffic and resultant noise and/or air pollution. Noise and/or air pollution can create real and/or perceived diminution to the amenity of an area and can be regarded as a social effect. Traffic noise is assessed in relation to background noise conditions and is influenced by many factors including the road surface, speed of the vehicle, type of vehicle and the volume of traffic. As part of the environmental assessment investigations, a noise and vibration assessment was undertaken and the results of the noise modelling are found within the environmental assessment and the working paper (working paper 2: Noise and Vibration Assessment). The influence of the Proposal on traffic volume relates directly to the

potential for increases (or decreases) in air quality. An increase in traffic volume is likely to have a perceived negative impact on air quality at a local level (and vice versa).

6.3.1 Upgrade section

Construction stage

Potential amenity effects during the construction stage would include noise and dust from construction sites, construction compounds and batch plants and visual and odour related impacts. These impacts would be temporary and transient, as construction moves along the alignment length.

The locations of compound sites and batch plants would be selected so that there would be minimal noise and odour disruption to surrounding sensitive land uses.

Operational stage

The upgrade section of the Proposal would result in minor visual impact on the existing landscape along the existing highway corridor. The potential visual impacts relates to the increase in the existing scale of the existing road infrastructure. These impacts can be reduced with the introduction of various mitigating measures that would include appropriate urban and landscape design, these impacts of scale are considered to have a negligible impact on the existing visual landscape.

For the upgrade section, residents affected by traffic noise from the Proposal are already impacted by traffic noise from the existing highway. Noise levels as a result of the Proposal would overall not be appreciably different than those experienced currently, and would be lower than those experienced if the Pacific Highway is not upgraded (Wilkinson Murray, 2007). Most houses within Sapphire, Moonee, Heritage Park, Avocado Heights, Emerald Beach and Sandy Beach would experience a slight reduction in noise levels, however, some properties within each of these areas would experience either no change or a slight increase. The upgrade section incorporates a range of noise management measures such as low noise pavement and in some locations noise walls to meet the appropriate noise level criteria.

6.3.2 Bypass section

Construction stage

Potential amenity effects during the construction stage would be due to the noise from construction sites, construction compounds and batch plants and visual and odour related impacts. These impacts would be temporary and transient, as construction moves along the alignment length.

As the Proposal passes through the spurs of the hills to the west of Woolgoolga, there may be the need to utilise blasting in order to remove rock in these areas, creating associated short term noise and vibration. Blasting would be conducted in consultation with DECC and the community and conform to Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration. However, short term noise, vibration and dust effects would be expected.

The location of compound sites and batch plants have been selected so that there would be minimal noise and odour disruption as well as having good access from the existing Pacific Highway.

Operational stage

The southern and central sections of the bypass section pass through areas of rural and rural residential land use. This section of the Proposal would introduce a new source of noise and air emissions into this area. The northern section of the Woolgoolga bypass traverses the Wedding Bells State Forest. Whilst a new source of noise and air emissions would also be introduced into this area, the rural nature of the landscape means that there are few sensitive receptors that would be impacted.

The bypass section of the Proposal would have visual impacts, particularly as it cuts through the spurs of the hills and would require the implementation of specific amelioration strategies, particularly in locations where the Proposal crosses steep ridges. The Proposal traverses an area of high scenic quality and there would be moderate to high adverse impacts as a result of the Proposal and appropriate amelioration strategies would be implemented (the landscape and urban design strategy is outlined in the Sapphire to Woolgoolga environmental assessment).

For the bypass section, the Proposal would introduce a new noise source to an area that currently has low background noise levels and little to no noise impacts from the existing highway or other road traffic. Noise levels would increase through this area, however the Proposal incorporates a range of features such as low noise pavement and noise walls to meet the appropriate noise level criteria.

The general amenity of areas in the vicinity of the existing highway through Woolgoolga would substantially improve as the Proposal would remove a majority of through traffic, including heavy vehicles, from the existing highway. The anticipated decrease in traffic numbers would equate to a reduction in noise and vibration and air pollution as well as fewer accidents likely to occur through Woolgoolga. These would provide a flow-on affect of benefiting community health and reducing stress caused by use of the existing highway.

6.4 Access and movement patterns

Changes to access and egress, including safety effects, and the creation of alternative linkages for regularly used travel paths can result in social impacts for a local community as they have to change their movement patterns. The following discussion relates to physical movement and access patterns and the effects of the Proposal on these. Community cohesion and connectivity, which focuses on the non-physical connections within communities, is discussed in Section [6.2](#) above.

6.4.1 Upgrade section

Construction stage

Potential impacts on the continued use of the highway and surrounding local roads and travel paths will be considered during the preparation of a work program for the staging and phasing of the construction of the Proposal. As the Proposal comprises separated carriageways, there are options to construct part of the Proposal independent of the existing highway, thereby minimising disruptions.

A traffic management plan would be completed as part of the Construction environment management plan and would address issues such as potential temporary closures of local roads, impacts on existing traffic including pedestrian and cyclist traffic and temporary access arrangements for construction sites.

Operational stage

Through the upgrade section, an objective of the Proposal is to rationalise/reduce the existing large number of access points along the Highway for safety and efficiency reasons. Along this section of the Proposal there would be four grade-separated interchanges located at the major residential centres (Sapphire, Moonee Beach, Emerald Beach / Graham Drive South and Graham Drive North). There would also be left-in/left-out intersection at Campbell Close on the western side and a right-in/left-out intersection with the eastern local access road (the existing highway) opposite Campbell Close at the southern end of the Proposal.

At these interchanges and intersections, local traffic would be able to access the Pacific Highway. These controlled entry points onto the highway are designed to improve the access and safety of local

traffic moving onto or from the Highway. Local access roads would be constructed next to the highway to accommodate local traffic removing the need for local traffic to negotiate the faster flowing highway and heavy vehicle traffic. The Proposal would make local movement along the northern beaches from Sapphire to Woolgoolga safer and more efficient.

The reduced number of road and access connections to the highway, however, may result in incrementally longer travel distances to and from many properties. However, the increased control of access points would result in significantly improved safety benefits compared to the many potential conflict locations along the existing highway. As part of the Proposal, no properties would have access directly onto the highway. As such, the local access road would not only provide for local traffic movement, but also access to properties, local streets and villages.

6.4.2 Bypass section

Construction stage

Potential impacts on the continued use of the highway and surrounding local roads and travel paths will be considered during the preparation of a work program for the staging and phasing of the construction of the Proposal. This is particularly important to the west of Woolgoolga, where some properties are only able to be accessed via one route.

A traffic management plan would be completed as part of the Construction environment management plan and would address issues such as potential temporary closures of local roads, impacts on existing traffic including pedestrian and cyclist traffic and temporary access arrangements for construction sites.

Operational stage

The transfer of through traffic from the existing highway to the bypass would result in improved access and local traffic movement around Woolgoolga. Vehicular traffic and pedestrian and cyclist traffic would also improve as a result of the Proposal.

Access for the length of the bypass would be via two interchanges, one south of Woolgoolga (Graham Drive North) where the Proposal deviates from the existing highway alignment, and another at the northern end of the bypass at Arrawarra, where the Proposal re-connects with the existing highway alignment. The existing road network providing access to properties to the west of the bypass would either be retained or modified to ensure that access to these properties is retained. Where required, these roads would pass over or under the bypass. Local traffic to the west of Woolgoolga would not have direct access to the bypass.

For traffic within Woolgoolga, there would not be any change to accessing the existing highway. To access the Proposal, traffic would travel along the existing highway to either the south Woolgoolga or Arrawarra interchange.

The major change to access through the bypass section would be to agricultural properties at the southern end of the bypass. These properties have new access arrangements incorporated into the design. The properties would have access from the existing Pacific Highway via Unwins Road and an underpass under the Proposal.

6.5 Property and land use impacts

6.5.1 Property acquisition

Property acquisition required for the Proposal would cause the main land use impact in the study area.

There would be 127 properties affected by acquisition for the Proposal. Approximately 83 properties would be affected along the upgrade section, with a further 44 properties affected through the bypass section. Two types of property acquisition would be required; partial acquisition and total acquisition. Partial acquisition is undertaken where only part of an existing property is needed to facilitate the development of a project. The design for the Proposal has considered potential impacts to properties and attempts to minimise acquisitions. Total acquisition is required where the Proposal affects the whole, or a majority of, a property. Land acquired as part of a total acquisition of a property, but not required by the RTA for the Proposal, would be subsequently sold.

The RTA is authorised under the *Roads Act 1993* to acquire properties that would be directly affected by a project. The acquisition would be undertaken in accordance with the *RTA Land Acquisition Policy* and the owners compensated in accordance with the *Land Acquisition (Just Terms) Compensation Act 1991*.

There would be 47 hectares of State Forest lands affected by the Proposal. The process of acquisition of such land is legislated in the *Forestry Act 1916*. Under Section 16A of the Act, the Minister may enter into an agreement for the sale or other disposal of land dedicated as State Forest in exchange for other land either for the purpose of a State Forest or for access to an existing State Forest (subject to compliance with the conditions of s16A(3) of the *Forestry Act*).

Table 6.1 indicates the properties that would be directly affected by the Proposal including the area and the percentage of the property that would be impacted. It is emphasised that these property impact details may alter during the detailed design phase of the proposed project and as a result of negotiations with the owners. The property number indicates the property shown in Figures 6.1a-6.1h.

Table 6.1: Properties directly affected by the Proposal

Property number	Owner	Total property area (ha)	Area of property directly affected (ha)	Percentage of property directly affected
1	Private	2.426	0.511	21.1%
2	Private	1.804	0.814	45.1%
3	Private	1.330	0.390	29.3%
4	Private	2.339	1.402	59.9%
5	Public	0.073	0.073	100.0%
6	Private	0.407	0.129	31.6%
7	Private	6.022	1.350	22.4%
8	Private	4.265	0.635	14.9%
9	Private	0.066	0.066	100.0%
10	Private	0.065	0.065	100.0%
11	Private	0.078	0.078	100.0%
12	Private	0.155	0.155	100.0%
13	Private	0.551	0.551	100.0%
14	Public	0.379	0.379	100.0%
15	Private	0.970	0.076	7.8%
16	Private	1.032	0.319	30.9%
17	Private	4.104	0.187	4.5%
18	Private	0.394	0.197	50.0%
19	Private	0.407	0.407	100.0%
20	Public	0.404	0.404	100.0%
21	Private	4.084	1.495	36.6%

Property number	Owner	Total property area (ha)	Area of property directly affected (ha)	Percentage of property directly affected
22	Private	9.158	3.862	42.2%
23	Private	3.041	0.231	7.6%
24	Public	0.680	0.077	11.3%
25	Public	2.042	2.042	100.0%
26	Public	2.069	0.944	45.7%
27	Public	2.038	1.248	61.3%
28	Public	0.383	0.383	100.0%
29	Private	2.083	0.237	11.4%
30	Private	1.009	0.097	9.6%
31	Private	0.420	0.046	10.9%
32	Private	12.021	0.071	0.6%
33	Private	9.200	0.435	4.7%
34	Private	0.410	0.078	18.9%
35	Private	0.411	0.105	25.5%
36	Private	0.410	0.116	28.2%
37	Private	4.196	0.491	11.7%
38	Private	10.155	0.361	3.6%
39	Private	40.483	0.214	0.5%
40	Private	16.668	0.599	3.6%
41	Private	6.297	2.562	40.7%
42	Private	2.492	1.719	69.0%
43	Private	11.307	1.403	12.4%
44	Private	4.068	0.163	4.0%
45	Public	0.325	0.069	21.2%
46	Private	0.405	0.076	18.7%
47	Private	0.412	0.017	4.1%
48	Private	1.607	0.698	43.4%
49	Private	7.930	0.463	5.8%
50	Public	10.102	0.473	4.7%
51	Private	17.392	0.858	4.9%
52	Public	4879.028	2.126	0.0%
53	Public	1.099	0.212	19.3%
54	Private	1.787	0.211	11.8%
55	Private	44.158	1.789	4.1%
56	Private	24.814	1.099	4.4%
57	Public	2.853	0.512	17.9%
58	Private	37.044	0.714	1.9%
59	Private	4.322	0.584	13.5%
60	Private	85.282	3.840	4.5%
61	Private	0.575	0.323	56.2%
62	Private	0.492	0.078	15.8%
63	Public	4.580	2.211	48.3%
64	Private	47.331	0.928	2.0%
65	Private	3.068	0.502	16.4%
66	Public	80.731	0.074	0.1%

Property number	Owner	Total property area (ha)	Area of property directly affected (ha)	Percentage of property directly affected
67	Private	13.283	1.417	10.7%
68	Private	2.134	0.295	13.8%
69	Private	0.468	0.468	100.0%
70	Private	1.672	1.028	61.4%
71	Private	0.575	0.575	100.0%
72	Private	0.131	0.131	100.0%
73	Public	7.530	0.175	2.3%
74	Private	1.587	0.012	0.8%
75	Private	31.299	1.419	4.5%
76	Private	12.884	1.252	9.7%
77	Private	0.060	0.015	25.0%
78	Private	0.056	0.056	100.0%
79	Private	40.761	0.099	0.2%
80	Private	2.151	0.510	23.7%
81	Private	9.966	1.457	14.6%
82	Private	6.152	1.552	25.2%
83	Private	6.410	1.149	17.9%
84	Private	10.152	0.703	6.9%
85	Public	0.406	0.406	100.0%
86	Private	0.394	0.394	100.0%
87	Private	24.843	4.882	19.6%
88	Private	4.092	3.516	85.9%
89	Private	2.277	0.199	8.7%
90	Private	3.811	2.084	54.7%
91	Private	3.304	0.047	1.4%
92	Private	8.959	3.697	41.3%
93	Private	10.843	0.870	8.0%
94	Private	7.353	1.733	23.6%
95	Private	4.993	0.136	2.7%
96	Private	4.367	1.359	31.1%
97	Private	2.217	1.675	75.5%
98	Private	2.195	0.689	31.4%
99	Private	2.709	0.062	2.3%
100	Private	2.170	0.832	38.3%
101	Private	2.080	0.771	37.1%
102	Private	1.903	0.335	17.6%
103	Private	2.351	0.161	6.8%
104	Private	2.462	1.209	49.1%
105	Public	30.274	5.783	19.1%
106	Public	14.190	30.585	215.5%
107	Private	2.574	0.345	13.4%
108	Private	22.844	2.284	10.0%
109	Private	61.034	1.642	2.7%
110	Private	5.195	2.384	45.9%
111	Private	13.168	1.375	10.4%

Property number	Owner	Total property area (ha)	Area of property directly affected (ha)	Percentage of property directly affected
112	Private	6.714	3.557	53.0%
113	Private	6.408	1.925	30.0%
114	Private	6.856	2.524	36.8%
115	Private	3.971	0.513	12.9%
116	Private	6.031	6.031	100.0%
117	Public	2.551	2.097	82.2%
118	Private	2.364	0.403	17.0%
119	Public	0.268	0.268	100.0%
120	Public	0.378	0.378	100.0%
121	Private	2.169	0.489	22.5%
122	Private	2.389	1.195	50.0%
123	Private	10.177	6.336	62.3%
124	Private	99.163	3.022	3.0%
125	Private	11.554	1.261	10.9%
126	Public	3119.654	28.698	0.9%
127	Public	32.307	7.334	22.7%

6.5.2 Upgrade section

The upgrade section would affect a large number of properties but would have a minor impact on the nature of land use. The upgrade would be mostly constructed within the existing highway road reserve and as such, the affected adjacent properties would be predominantly partial acquisitions. However some properties would require total acquisition due to the area or extent of impact on the property, most usually in the vicinity of proposed interchanges.

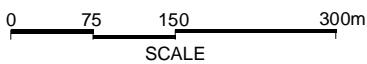
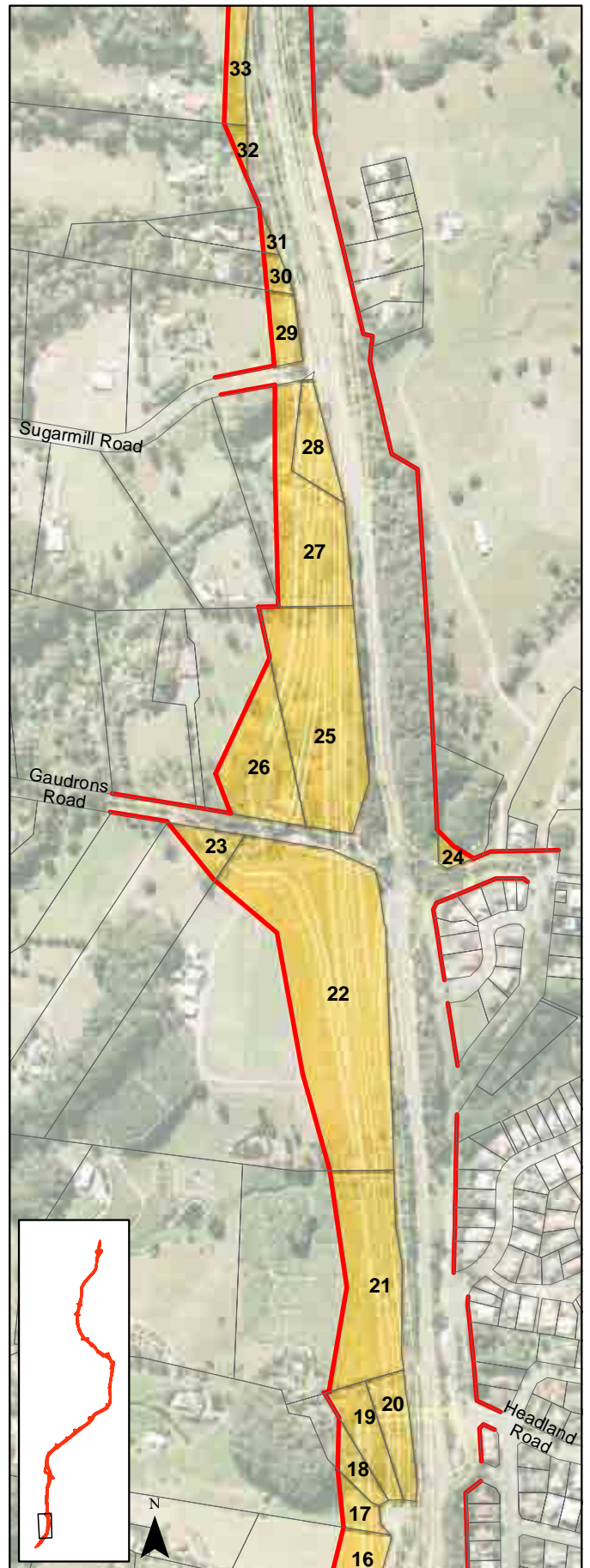
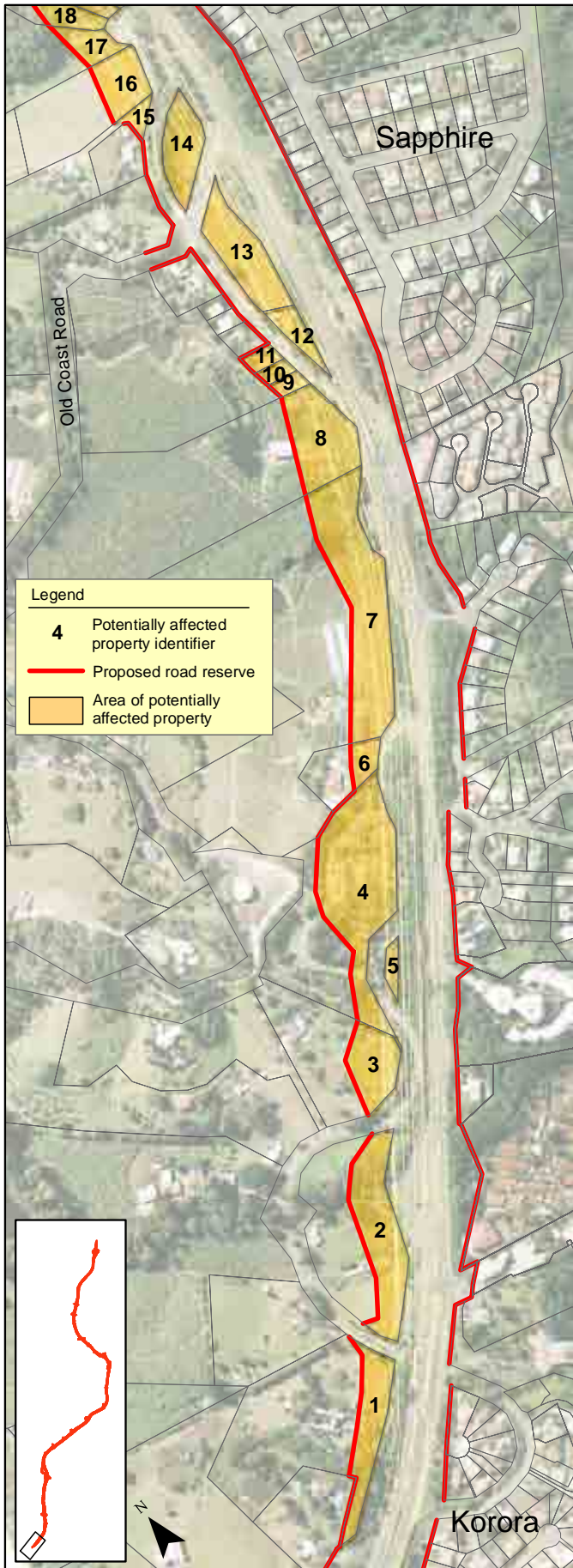
Most existing urban settlements and rural residential precincts along the upgrade section would have current access arrangements altered as a result of the Proposal, which in this section includes the local access road network. The Proposal would also mean changed access for virtually all highway fronting properties that currently have direct access. The local road network that has been incorporated into the design has been specifically developed to accommodate the future land use and travel demands in the study area. Local traffic movement along the northern beaches would be enhanced without the need to access the highway, as well as providing access to properties along the existing highway.

6.5.3 Bypass section

The bypass section is a whole new road corridor and it would require substantial property acquisition. As a consequence, the Proposal would directly affect existing rural lands (including horticultural cultivation, rural residential development and forestry).

A landscape supply business would also be affected near the south Woolgoolga interchange. No urban residential land would be affected although the route would pass through the south-western corner of South Woolgoolga Urban Investigation Area.

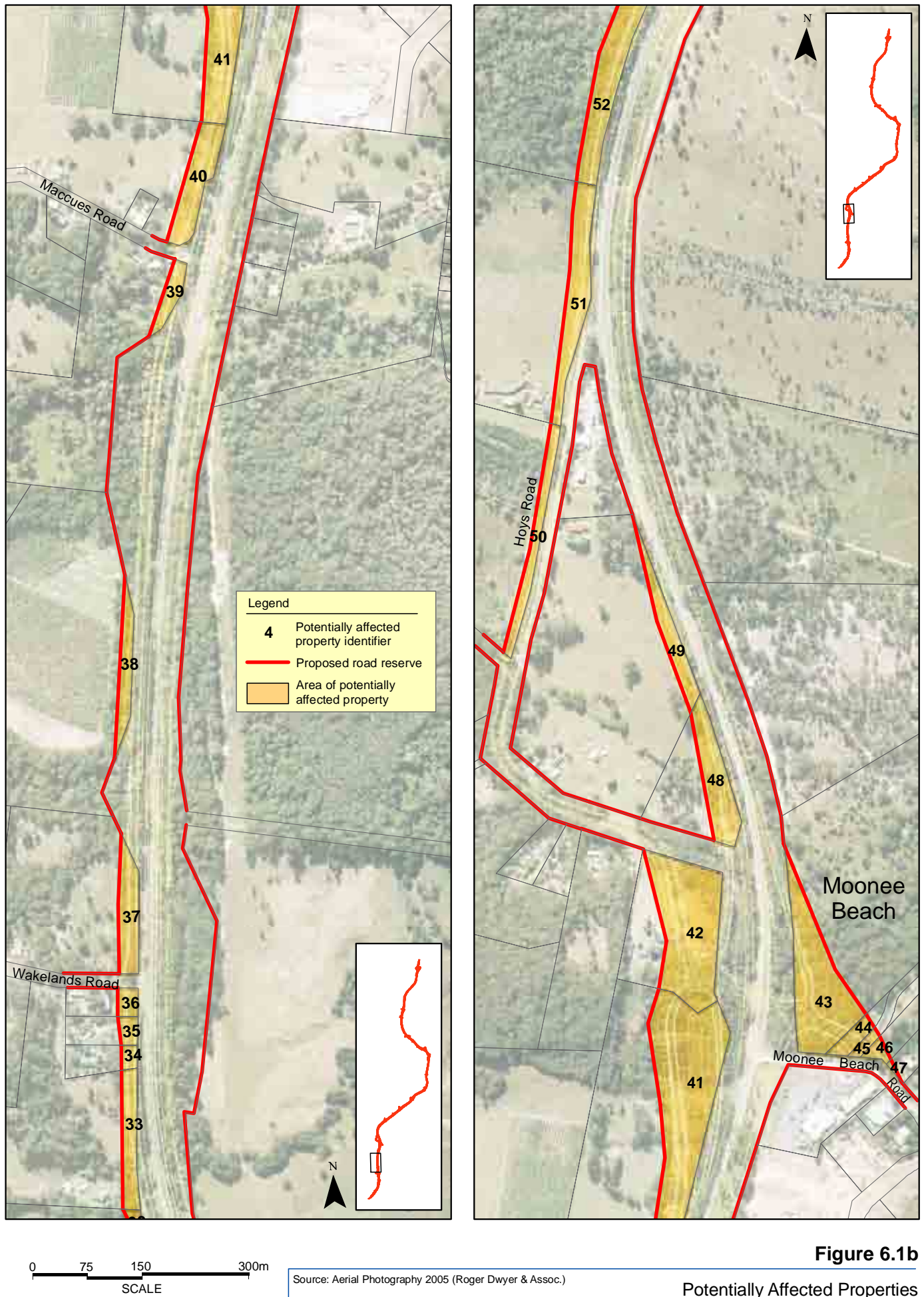
Property acquisition through this section would be a combination of partial or total acquisitions and would mostly involve agricultural and forestry lands. Some forty agricultural properties would be affected by the Proposal and the consequences for those operations are addressed in the working paper on Agricultural Assessment.

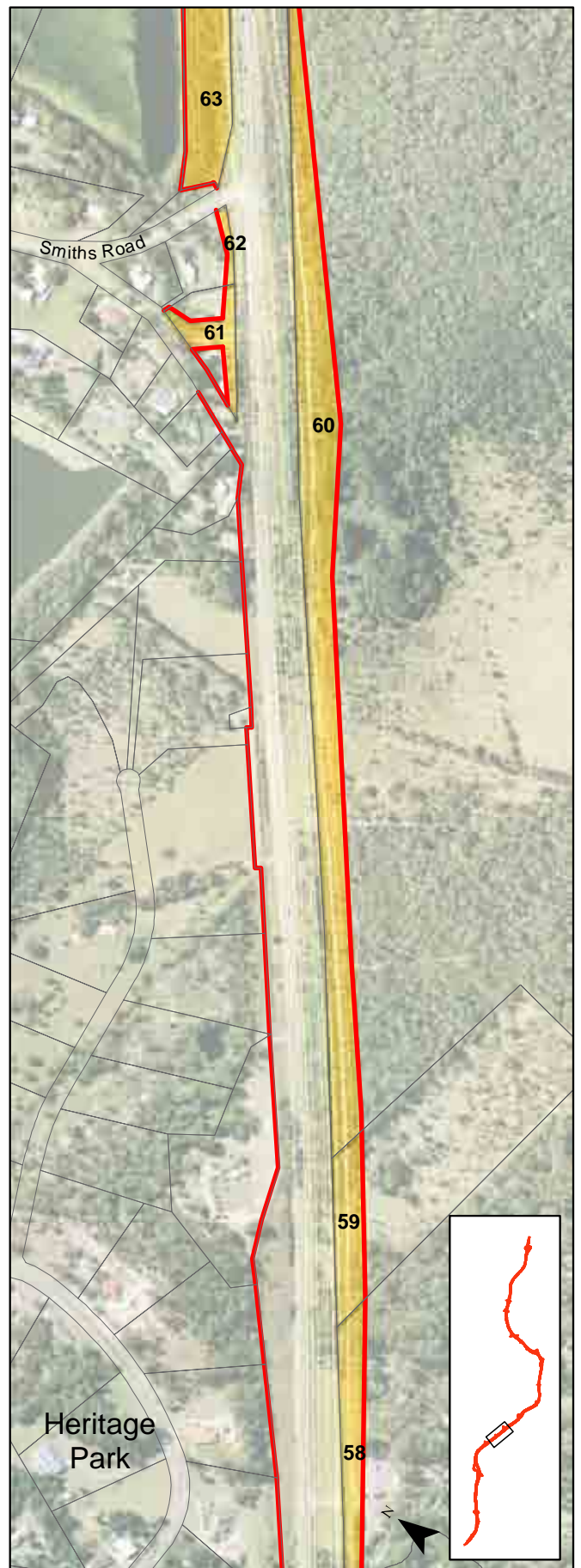
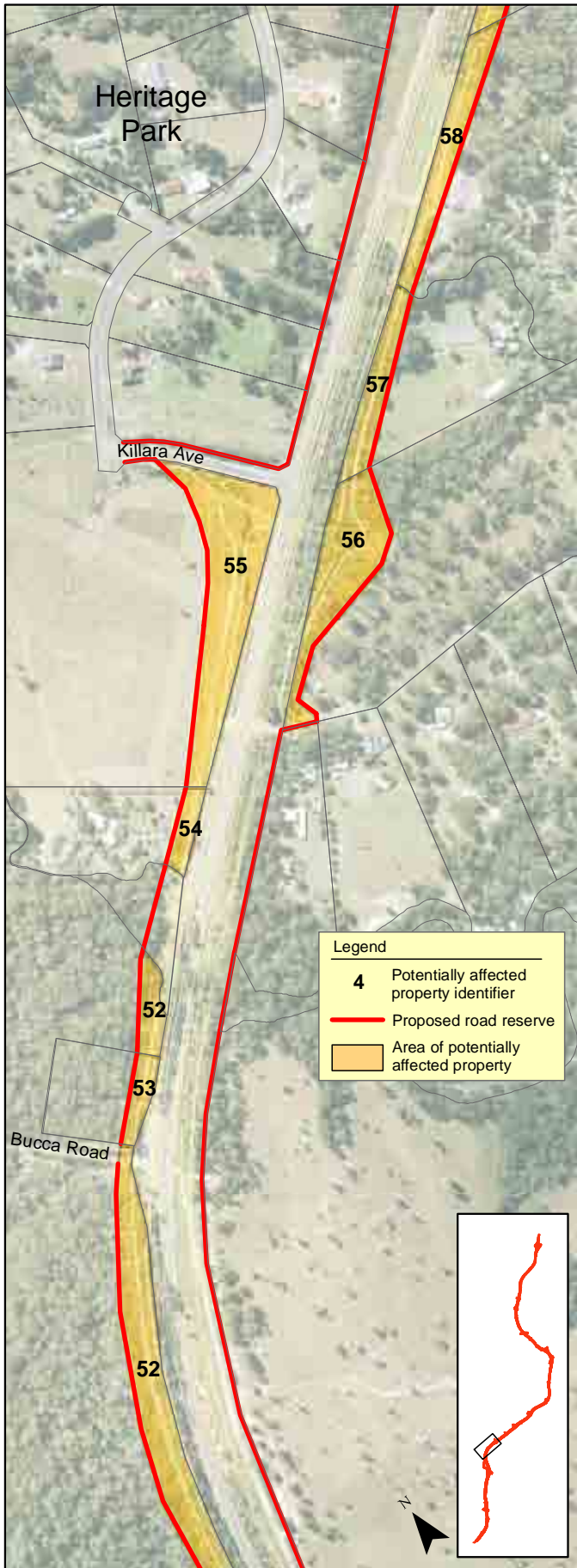


Source: Aerial Photography 2005 (Roger Dwyer & Assoc.)

Figure 6.1a

Potentially Affected Properties



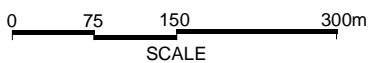
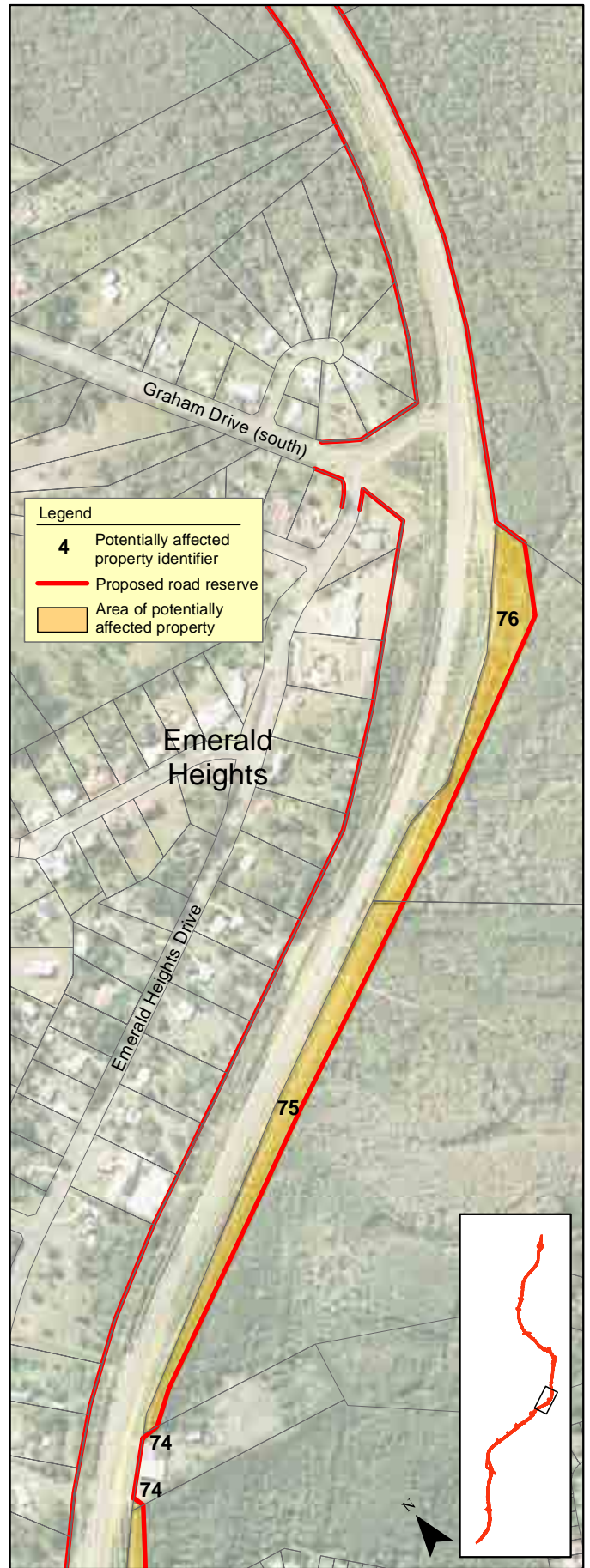
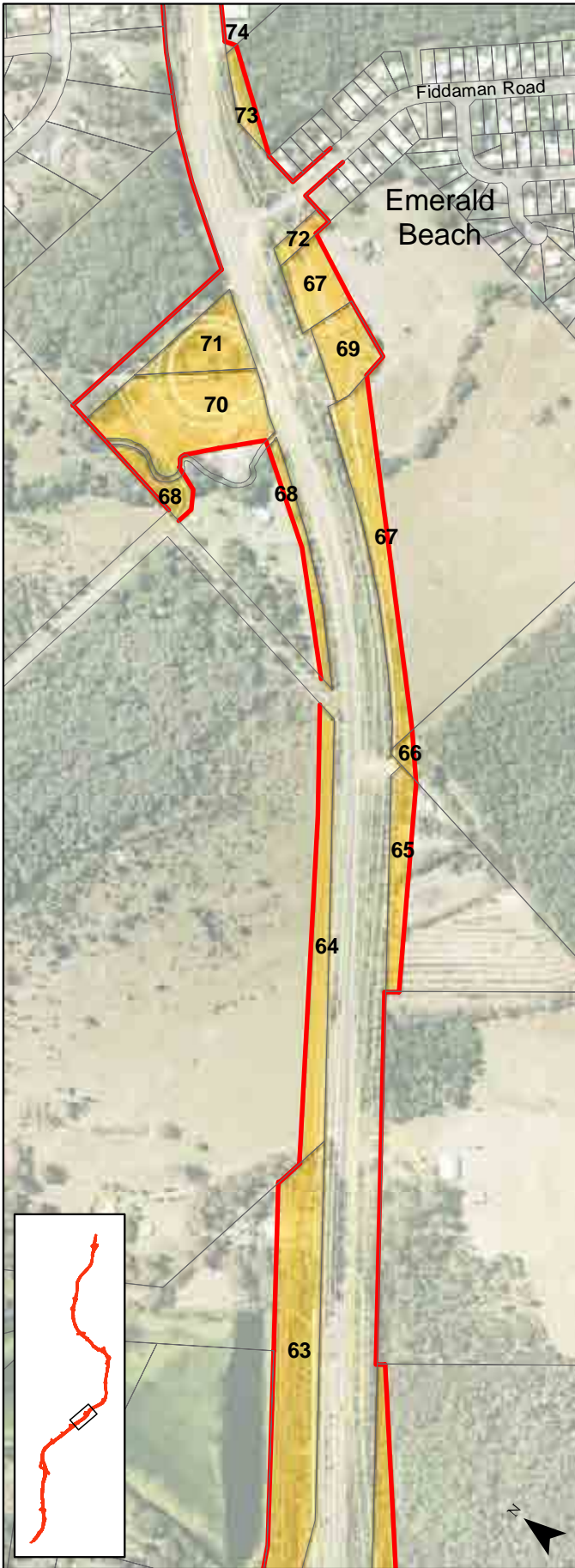


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Source: Aerial Photography 2005 (Roger Dwyer & Assoc.)

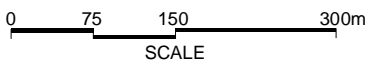
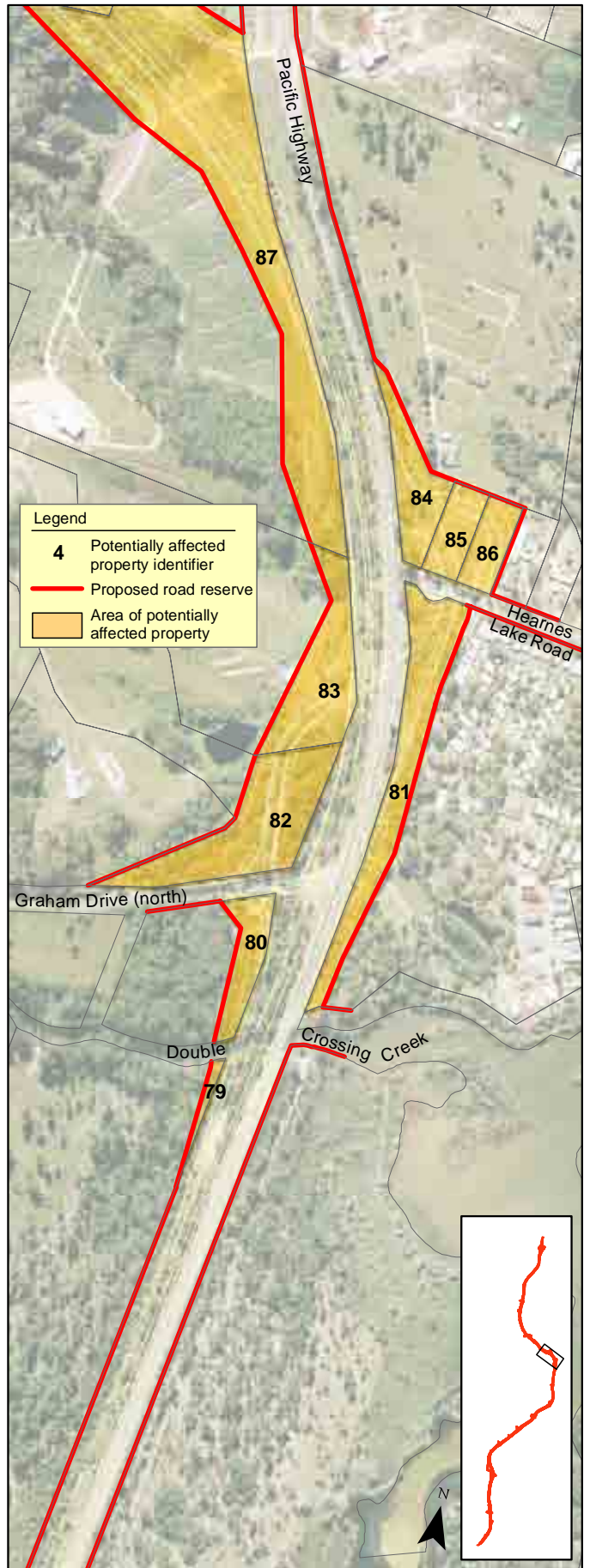
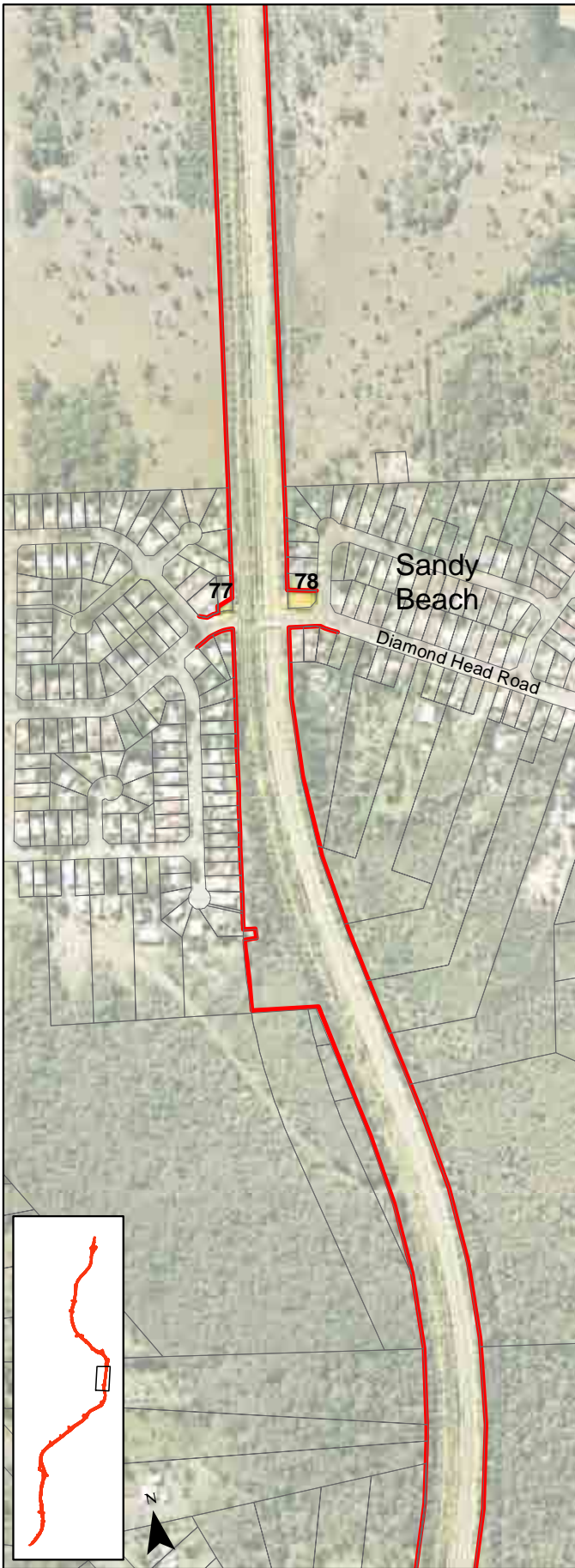
Figure 6.1c

Potentially Affected Properties



Source: Aerial Photography 2005 (Roger Dwyer & Assoc.)

Figure 6.1d
Potentially Affected Properties



Source: Aerial Photography 2005 (Roger Dwyer & Assoc.)

Figure 6.1e

Potentially Affected Properties

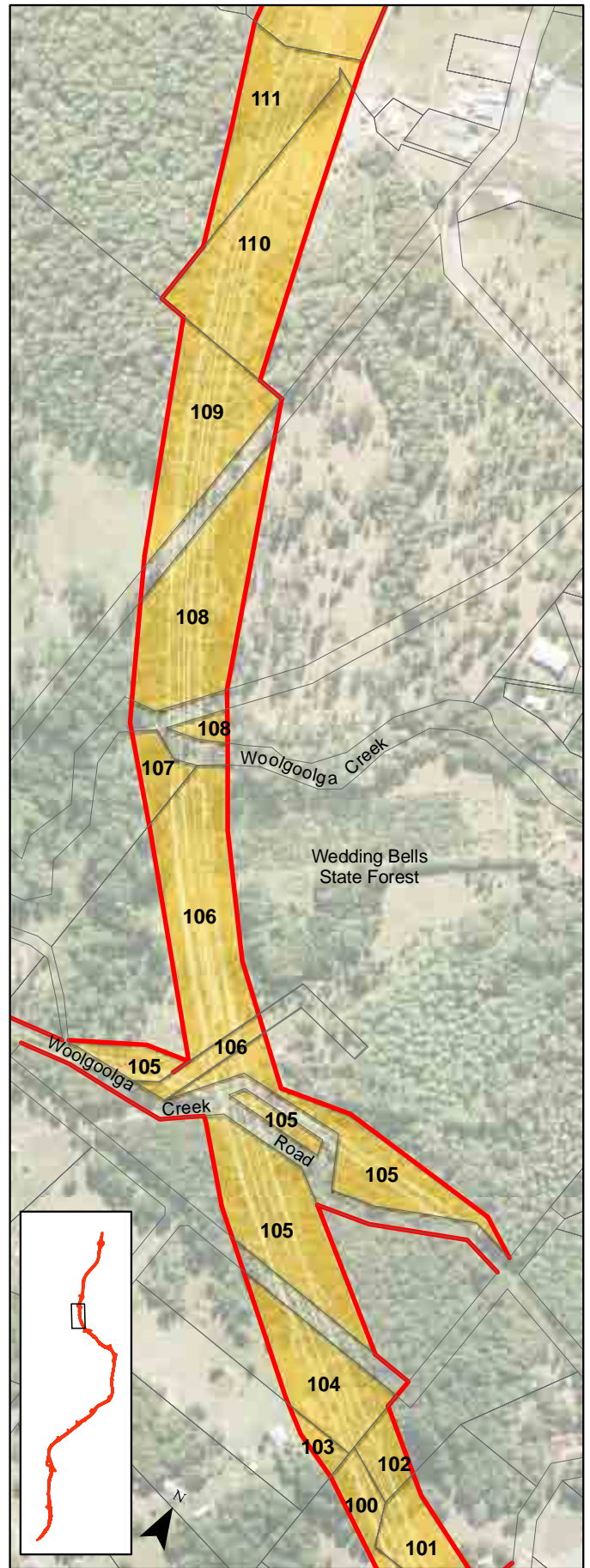
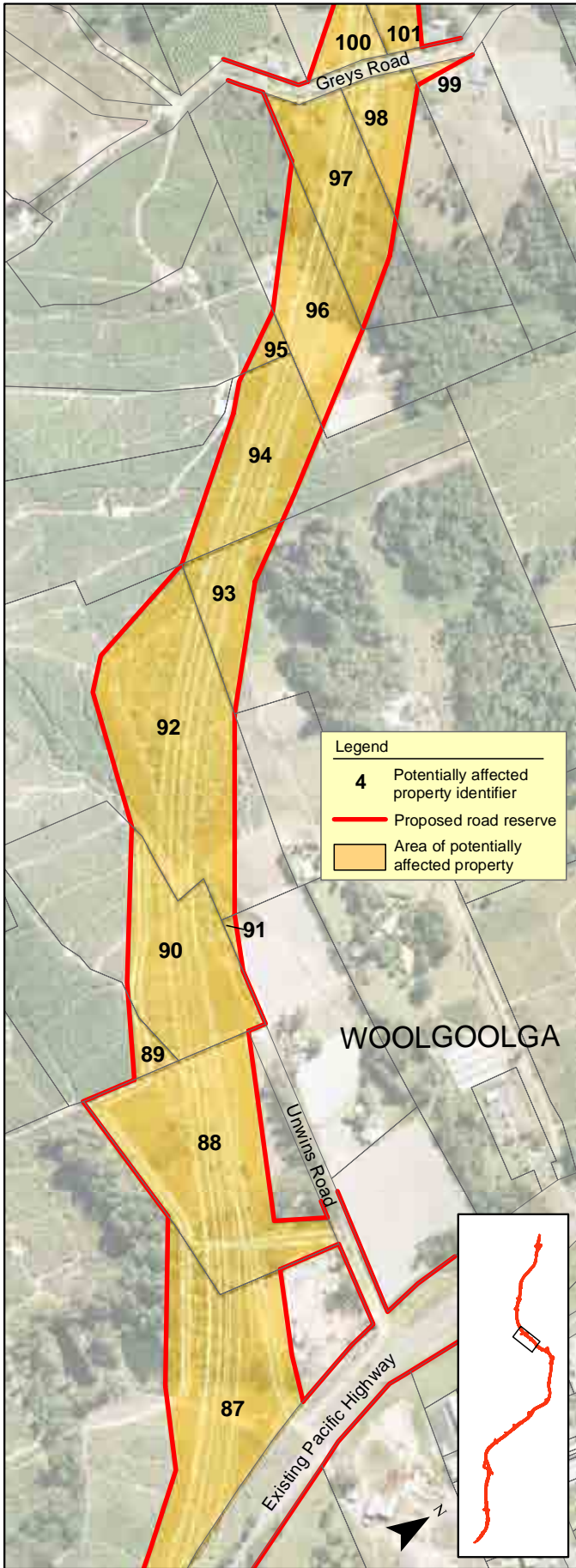
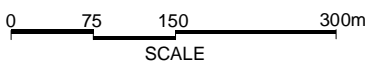


Figure 6-1f

Potentially Affected Properties



Source: Aerial Photography 2005 (Roger Dwyer & Assoc.)

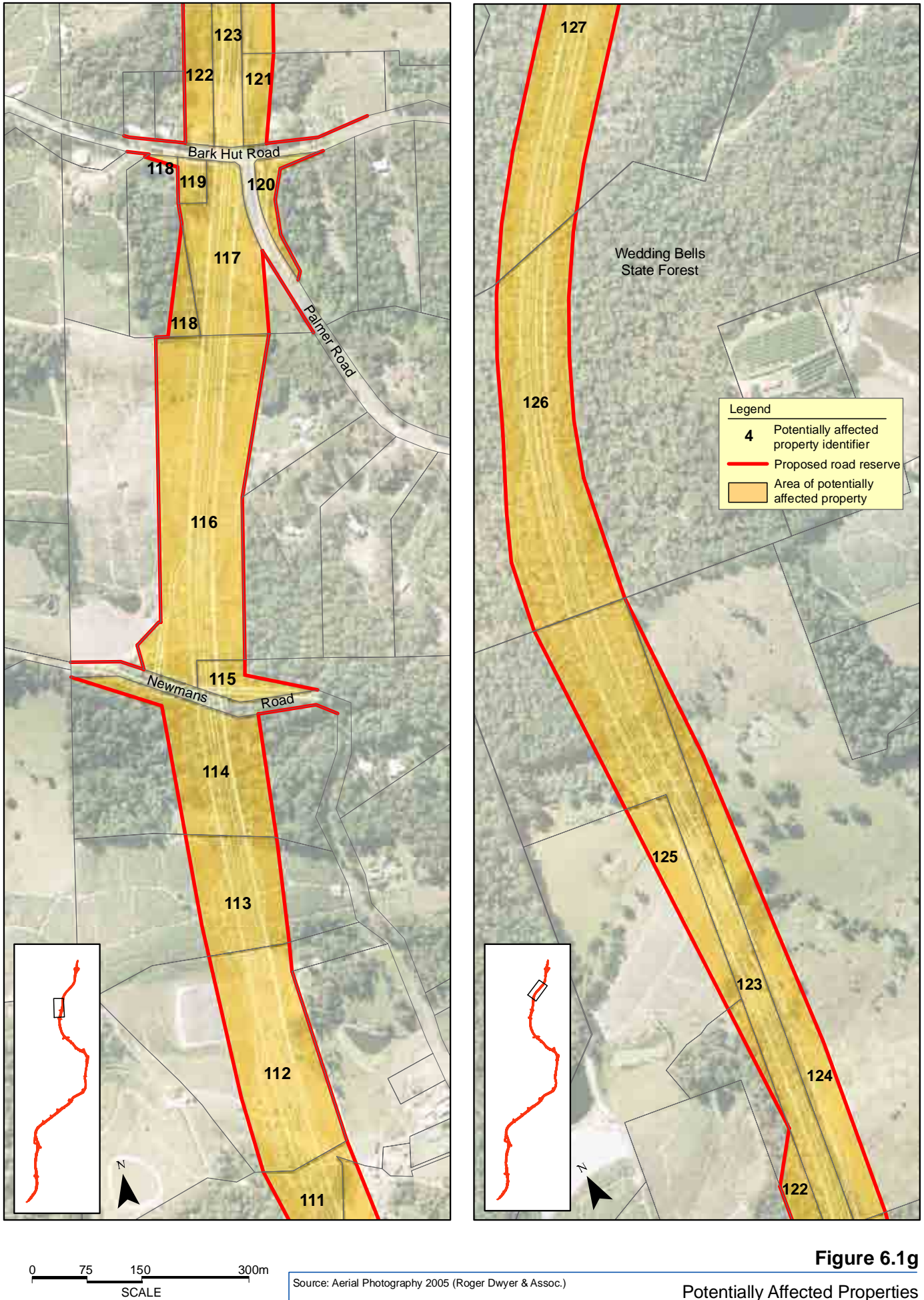
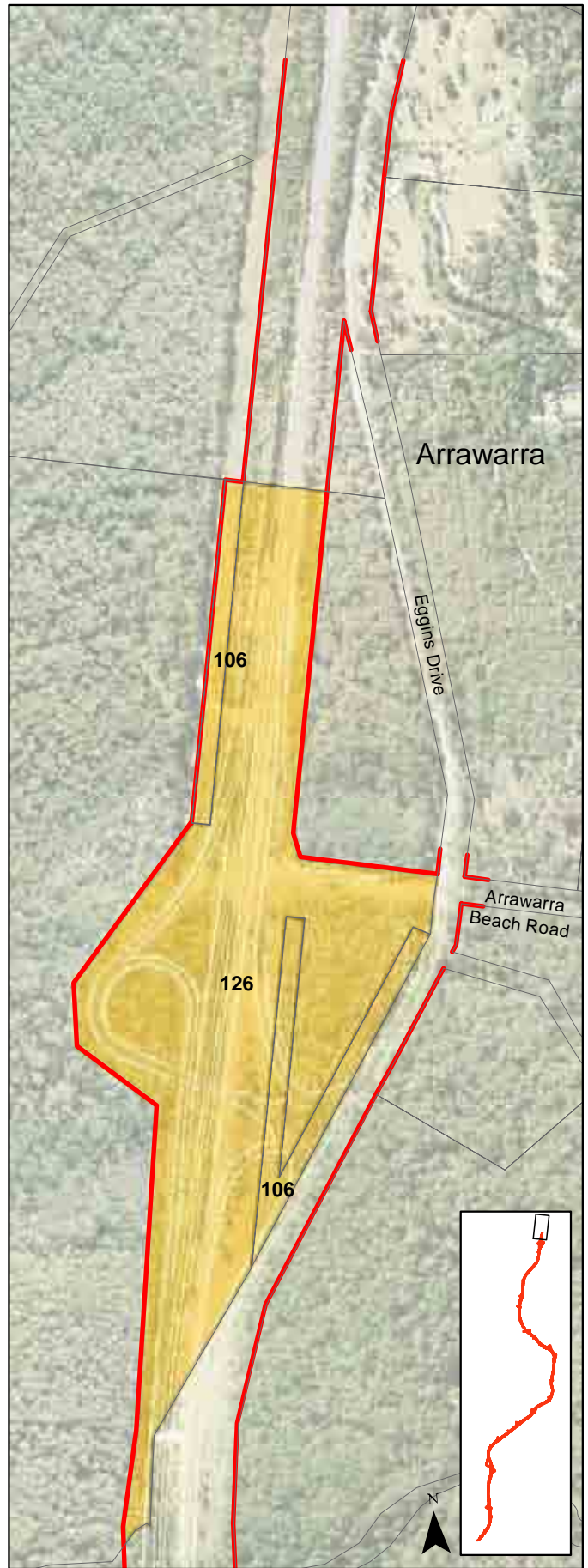
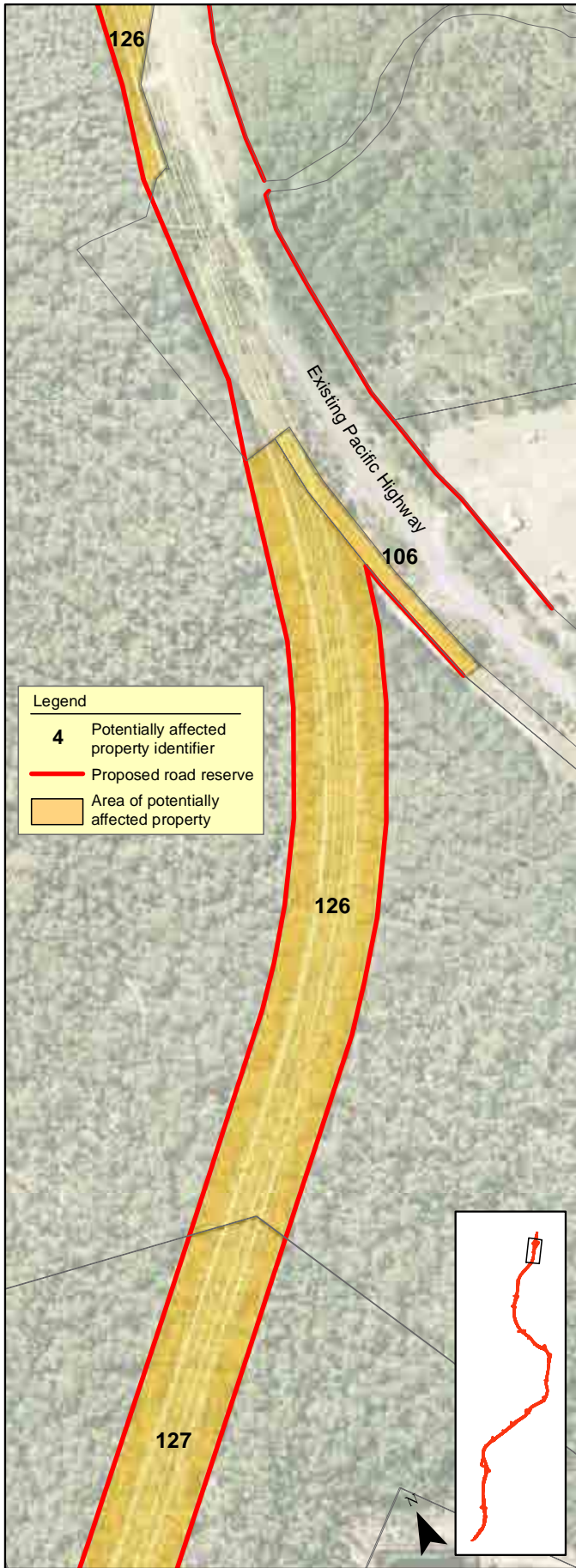


Figure 6.1g

Potentially Affected Properties



0 75 150 300m
SCALE

Source: Aerial Photography 2005 (Roger Dwyer & Assoc.)

Figure 6.1h

Potentially Affected Properties

The Proposal would result in the diversion of through traffic away from the existing highway in Woolgoolga which would revert to a local traffic route. All roads crossed by the bypass section would be served by highway underpass or overpass so that rural properties to the west retain road access to and from Woolgoolga. As such, aside from the existing highway changing to a local road, there would be no changes to the existing local road network.

In these circumstances, it is unlikely the Proposal would cause any change in the pattern of land use along this part of the highway corridor aside from the lands directly required for highway construction. Rather, the Proposal would facilitate the future land use development within the area, accommodating for the increase in traffic generated by development in areas such as the potential south Woolgoolga Urban Investigation Area.

6.5.4 Future land use changes

The primary cause of land use changes along the northern beaches is expected to result from the statutory planning changes and land market forces in response to predicted population growth in Coffs Harbour. While the Proposal would provide the improved access and travel conditions essential for future development of the area, the actual land use change would be independent of the highway upgrade.

As part of its future land use planning for the area, Coffs Harbour City Council would have to consider the s117 Ministerial Direction (under the Environmental Planning and Assessment Act 1979), direction No.7 (Commercial and Retail Development along the Pacific Highway, North Coast) when proposing any draft plan for land use change. However, this would be in the context of the Proposal being an access controlled route with no direct property access to the highway and any land use change necessarily being independent of the operation of the highway.

6.6 Effects on business activity

Substantial research has been undertaken into the effects of highway upgrade proposals on business activity. The direct impacts of such proposals depend on the nature of the upgrade and can include property acquisition requiring closure of the business, changes to access to a site or changes to the operation that alters its income or viability. These issues have been addressed in Section 6.5 in terms of property and land use effects.

This section focuses on indirect impacts on businesses that can occur - including diversion of traffic and reduction in passing trade, and loss of exposure, which can result in a decrease in trading and consequent economic loss. In some instances, these impacts are beneficial when heavy traffic is removed and local access and amenity improved. As would be expected, reduction in employment is directly related to businesses relying on passing trade (Parolin and Garner, 1996).

6.6.1 Upgrade section

Construction stage

During the construction of the Proposal, there may be a situation where construction may temporarily block access to a business that has direct access onto the highway. This may affect the patronage of those businesses, particularly those that may rely on passing traffic.

Potential impacts on business activities will be considered during the preparation of a work program for the staging and phasing of the construction of the Proposal. A traffic management plan would also be put into place during the construction stage.

Due to the large scale of construction for the Proposal and the work force required, it is expected there may be a range of economic benefits for businesses in Woolgoolga, Coffs Harbour and the northern beaches throughout the duration of the construction. This is likely to occur through increased demand for workforce accommodation and goods / services. The construction may also generate employment opportunities in the local area. There may be additional impacts on community services (e.g. medical, social and commercial) resulting from labour relocating to the area, however given that the construction workforce is expected to be approximately 300 persons it is anticipated that this impact would not be significant. The construction activity would be expected to generate employment opportunities in the local area, especially through subcontractor and material supply.

Operational stage

The upgrade section of the Proposal could potentially alter patronage to businesses that currently have direct highway access (such as the service stations at Sapphire and north of Emerald Beach). Under the Proposal, access to these businesses would be via the local access road and not the highway, making accessibility of these businesses from the highway more difficult. The extent of adverse impact due to the change in access would be largely a function of the reliance on trade from through traffic on the highway. However, these businesses may benefit from the improved connectivity with the local residences and villages, thereby increasing local patronage.

As the Proposal would be built along the existing alignment, there would be no reduction in passing highway traffic, however, as access is not possible from the highway; appropriate signage would be required to provide location and access arrangements.

6.6.2 Bypass section

Construction stage

Access would be maintained to the existing roads and existing highway to enable trucks to get farm produce to sale and to enable forestry trucks access to the highway.

There would also be short-term economic benefits for Woolgoolga, with increases in patronage (as well as local employment) during the construction of the Proposal (refer section 6.6.1).

Potential impacts on business activities will be considered during the preparation of a work program for the staging and phasing of the construction of the Proposal. A traffic management plan would also be put into place during the construction stage.

Operational stage

There could be adverse consequences for businesses in Woolgoolga. Research into the economic impacts of bypasses similar to the Proposal (Garner and Parolin 1996) indicates that the loss of "stopper" traffic (ie. typically short stops for fuel, food, rest facilities) would have the main impact, with businesses such as service stations and food outlets possibly experiencing reduced turnover and employment.

The Coffs Harbour City Population Profile 2004 indicates that Woolgoolga is an important hub providing a number of key services for the smaller surrounding (pre-dominantly residential) villages. Feedback from community consultation undertaken early in the development process, confirmed that there is a very small number of Woolgoolga businesses that have a strong reliance on passing traffic. Businesses that potentially rely on highway traffic through Woolgoolga include service stations and motels. These businesses could experience a decline in patronage due to the lack of exposure to through traffic on the highway. However, this lack of exposure would be partially offset by the improvement in the general amenity and accessibility to the commercial centre of Woolgoolga. The main commercial centre in Woolgoolga is located less than a kilometre from the existing highway, and

is not within view of passing motorists. The Coffs Harbour Retail Strategy 2006 indicates that the commercial centre of Woolgoolga should be consolidated and then further expanded to the period up to 2031. The Proposal would facilitate increased amenity and accessibility for local residents to access the commercial centre at Woolgoolga.

The economic importance of “stayer” highway traffic (i.e. travellers seeking accommodation and other services) is unlikely to be substantially affected by the Proposal. The improved amenity in Woolgoolga resulting from removal of through traffic could potentially benefit many businesses catering to short and long stay highway travellers.

Additional benefits to the local economy can also be expected through the general improvement to the road infrastructure, both within the study area and more broadly, the Pacific Highway Upgrade Program. The Proposal would provide economic growth for the area benefiting both the local and the regional areas through increased freight efficiency, travel times and level of service. These would provide flow-on benefits resulting in a reduction in transportation times and costs, providing better access for goods and services to markets as well as opening/ strengthening access to inter-regional markets.

Internal access routes through the State Forest would be either be maintained or modified in consultation with Forests NSW.

There would be approximately 40 agricultural properties which would be directly impacted, 15 of those are considered to have a critical impact, resulting in the property no longer being feasible (in its current state) as a farm.

Further information on the impact of the Proposal on agricultural farming (including non direct impacts such as the aerial spraying buffer) can be found in working paper 5: Agricultural Assessment.

6.7 Effects on tourism

Economic activity generated by tourism forms an important part of the local economy in the study area. The main tourist attractions in the study area are associated with the coastal village atmosphere and associated activities. Outside Coffs Harbour, the majority of tourist services are located within the Woolgoolga area.

No property associated with tourist operations would need to be acquired as a result of the Proposal. As such, potential effects on tourist activity would be confined to changes in access and effects on amenity that may make tourist areas and operations more or less attractive for visitors. The upgrading of the Pacific Highway is an important infrastructure initiative that would be of broad benefit to the tourism sector.

It is noted that the viability or success of tourist operations in the future will be dependent on a wide range of factors and would not be solely limited to the upgrade of the highway. Such factors include the broad scale issues such as health of the domestic and international tourist markets and broad economic activity, as well as detailed issues including signage and competition from other tourist areas in the locale.

6.7.1 Upgrade section

Construction stage

Impacts on tourism during the construction stage could arise due to changed access arrangements to tourist attractions, facilities and services in the study area, for similar reasons to those identified as for potential business impacts noted above.

Tourist facilities and destinations could also be potentially affected by an increase in dust, construction noise, traffic conflicts and visual impacts associated with construction. However, all such construction related impacts would be transient and short term as the works progress along the corridor and there are many measures that would be implemented as part of the Proposal to effectively avoid or mitigate such effects. As such, while there would be nuisance effects, the impacts on individual tourism operations and the industry are likely to be minor.

Operational stage

The proposed upgrade of the highway between Sapphire and south Woolgoolga would improve travel times and efficiency along this section of the highway and would enhance overall safety and ease of access to the numerous major tourist destinations in this area. Access to tourist resorts at Sapphire would be via the eastern local access road (existing highway).

The importance of car transport for tourists visiting the area is vital, meaning ease of access to and within the study area is of particular importance to tourism. The Proposal would improve travel times and road safety between Coffs Harbour and the coastal villages to the north which would have the potential to enhance the attractiveness of these areas for day trips to and from Coffs Harbour.

6.7.2 Bypass section

Construction stage

While there would be minimal impacts on tourism through the construction of the Proposal, there may be situations whereby tourist activities (such as hiking and bird watching) may be disrupted through the State Forest where construction is to take place.

Operational stage

While there may not be a heavy reliance on passing trade from the Pacific Highway, there could still be some loss of business to highway-related businesses (e.g. motels) as a result of traffic bypassing the town. Instead, as a result of the diversion of large traffic volumes and heavy vehicles around Woolgoolga, the town may see an increase in tourism (as a tourist destination) associated with improved amenity (less noise and traffic) that may entice tourists to the town. Appropriate signage along the highway should be considered in order to attract people to Woolgoolga.

Some tourist businesses in the rural west Woolgoolga area, although not directly affected by the Proposal, are likely to be adversely affected by reduced amenity such as traffic noise and landscape / view impacts. However, management measures have been incorporated to mitigate against adverse impact (refer Chapter 7) The improved amenity in Woolgoolga resulting from removal of through traffic could potentially benefit many businesses catering to short and long stay highway travellers.

7. Proposed management measures

This section presents possible mitigation measures that can be introduced to minimise the potential socio-economic impacts resulting from the Proposal.

Recommended mitigation measures include:

Construction stage

- Provision of traffic management procedures to manage access issues during construction (access to properties and businesses).
- Provision of appropriate noise mitigation measures during the construction phase (to mitigate noise pollution).
- Construction batch plants and other ancillary facilities to be located away from sensitive land uses
- Appropriate environmental controls during construction in order to maintain the environmental amenity of the surrounding environment (eg. water quality / detention basins, dust mitigation measures, blasting and noise control measures)
- Implementation of a Construction Environment Management Plan and sub-plans including a traffic management plan, the latter to address matters such as temporary access changes and impacts on local businesses and tourism.

Operation Stage

- Provision of appropriate noise mitigation measures during the operational phase (to mitigate noise pollution).
- Urban design and scenic management of the Proposal to comply with the RTA Pacific Highway Urban Design Framework (to improve the visual sensitivity and scenic quality of the upgrade).
- Interchanges near Woolgoolga and other northern beaches settlements to be designed for clear and efficient access for both local residents and visitors.
- Provision of a continuous local access road between Sapphire and south Woolgoolga to:
 - Provide safer access to properties that currently have direct highway access.
 - Enable residents to travel to local schools, shops etc. without having to use the new highway.
 - Provide an alternative route between Sapphire and Woolgoolga for school buses, motorists, pedestrians and cyclists who do not wish to use the highway.
- Installation of appropriately designed overpasses / underpasses in order to allow continued local road and property access.
- Signage at the interchanges south and north of Woolgoolga, promoting the town as a place to obtain fuel and supplies and for an overnight stay (ie. promote the town to attract passing traffic for short stops / stays).
- Signage at the new interchanges at Emerald, Moonee and Sapphire promoting tourist facilities including resorts / holiday accommodation (promote the area as a tourist location).

7.1.1 Other opportunities

In addition to the management measures to be implemented by the RTA, it is apparent from the experience of other comparable projects that there are also strategies that could be adopted by community stakeholders to assist in mitigating certain socio-economic impacts from the Proposal. These strategies would typically seek to identify future advantages that can be realised for the local community when a bypass has been opened. They are usually centred on programs that enhance the character and amenity of certain community places / areas and that promote and revitalise business activities and community events. In planning for this stage, there is the added benefit of offsetting some of the adverse effects associated with the bypass Proposal.

In this context, the opportunities identified below are presented for consideration by stakeholders such as Coffs Harbour City Council, the Woolgoolga and Coffs Harbour Chambers of Commerce, individual

businesses and possibly some industry groups (eg. tourism organisations). The potential measures outlined below do not form part of the revised Statement of Commitments to which the RTA has confirmed commitment, nor do they amount to an exhaustive list:

- Increase local business promotional activities for Woolgoolga (promote the town to attract local residents).
- Strategies for the development and promotion of tourism on the Mid North Coast region (such as those included in the North Coast NSW Regional Tourism Plan 2004-2007 (North Coast NSW) and Coffs Coast-North Coast Region-Tourism Development Plan (Coffs Harbour City Council)) could be implemented (to promote the town as a tourist location to increase tourism and provide jobs).
- Implement general promotional activities for businesses within the Mid North Coast, such as the Manufacture Coffs Coast website to promote the area as a business opportunity area (promote investment and employment to the local area).
- Improve the amenity of Woolgoolga, implementing strategies and building on strategies like the Street Trees Masterplan (Coffs Harbour Council), Woolgoolga Business Lands Masterplan (Coffs Harbour Council) (improve amenity of Woolgoolga, increasing local and tourist patronage).
- Continual development of the Streets Ahead program and initiatives such as the Woolgoolga Curry Festival (increase tourism activity in Woolgoolga).

8. Summary and conclusions

Statutory planning

For major infrastructure projects in NSW, the key statute is the Environmental Planning and Assessment Act. The Proposal is being assessed under Part 3A of the Act, consistent with a Ministerial Order made in December 2006. The Part 3A process requires the preparation of an Environmental Assessment to accompany a request for planning approval from the Department of Planning. Part 3A of the Act integrates the approvals usually required under eight separate Acts. However, as the Proposal involves work that affects Double Crossing Creek and Cunninghams Creek (part of the Solitary Islands Marine Park), formal concurrence will be required under the Marine Parks Act.

Under the Commonwealth Environment Protection and Biodiversity Conservation Act, a proposed project that will or is likely to have a significant impact on a matter of National Environmental Significance requires approval from the Commonwealth Department of Environment and Water Resources. The assessment of relevant issues, including potential impacts to threatened and migratory species, concluded there would be no significant impact. The Proposal has been referred to the Department for assessment of the significance of potential impacts on matters of National Environmental Significance.

Strategic plans and policies

The Proposal has been reviewed in terms of consistency with the strategic plans and policies relating to matters such as highway planning, land use, economic development and environmental management. In many instances the Proposal had already been anticipated in these plans and strategies, mainly because the Sapphire to Woolgoolga project has been identified as one of the components of Pacific Highway Upgrade Program which commenced in 1996. As such, the Proposal is broadly compatible with and often directly complementary to stated objectives and future directions envisaged in those documents.

Property and land use

The number of properties affected by the Proposal is significant, with 127 lots directly impacted, incorporating 165 hectares of land.

Property acquisition required for the bypass section would lead to significant land use conversion from mainly rural pursuits and forestry into a major highway formation. In contrast, the upgrade section is mainly within the existing road reserve and also incorporates changes to the local access network that is expected to support both current and planned land use.

Significant changes to future land use within the study area are planned by Coffs Harbour City Council largely prompted by predicted population growth and increased demand for new areas for rural residential and urban living on the Mid-North Coast. These changes will occur through planning processes independent from the Proposal, but it is recognised that close integration with the highway plans is vital if future land use and urban development plans for the area are to be realised.

The primary method of mitigating property effects would be through the established acquisition processes contained in the RTA Land Acquisition Policy and compensation to owners in accordance with the Land Acquisition (Just Terms) Compensation Act. Similarly, acquisition of State Forest land would be in line with the established process as legislated in the Forestry Act. Any land acquired by the RTA but not required for the operation of the Proposal, would be sold on completion of construction.

Socio-economic impacts

Numerous categories of potential socio-economic impact associated with the Proposal have been considered in this report and other allied studies including noise and vibration, landscape / visual, and the agricultural assessment.

Table 8.1 gives an overview of potential impacts and the corresponding mitigation measures. Some of the important mitigation measures form an integral part of the design of the Proposal, while others were discretely developed to address specific impacts.

In addition to the property and land use effects identified above and the amenity and agricultural impacts detailed in the allied study reports, the main adverse socio-economic impacts from the Proposal include:

- Reduced environmental amenity for areas to the west of Woolgoolga along the bypass section mainly associated with the changed acoustic conditions and the landscape visual alterations.
- Adverse impacts on a small number of businesses with moderate to high dependency on passing trade from highway traffic

The main mitigation measures to be adopted by the Proposal in order to minimise/ avoid adverse impacts are indicated in Section 7 in this report.

The local and regional benefits as a result of undertaking the Proposal include:

- Generally enhanced local community interaction and cohesion resulting from a local access road network that facilitates better access between settlements along and on both sides of the highway corridor.
- Removal of current severance effects of the existing highway through Woolgoolga with substantial improvement in the environmental amenity of the town due to diversion of through traffic, including a large volume of heavy vehicles.
- Improvement in road safety through the provision of a high-standard highway with controlled access points, and the construction of a local access road to reduce local and through traffic conflicts.
- Improved community cohesion through the incorporation of a local access road network. To the west of Woolgoolga, cohesion and access would be maintained for properties to the west of the Proposal.
- Compatibility with future land use and development plans in the study area and provision of high standard transport infrastructure to support both local and regional road traffic needs well into the future.
- Likely increase in tourism activity due to the improved accessibility and safety for road travel to and within the study area by visitors as well as improved amenity of Woolgoolga as a destination.
- Increased local economic activity due to a combination of the above changes, reflected in increased business income and employment.
- Overall slight improvement in traffic noise levels along the upgrade section

Table 8.1: Potential socio-economic impacts and mitigation measures

Socio-economic issues	Upgrade section	Bypass section	Possible management measures
Community Cohesion	<p>Negative:</p> <ul style="list-style-type: none"> • Construction works could alter access and travel routes • Potential increase in the psychological separation felt by residents on the western side of the highway <p>Positive:</p> <ul style="list-style-type: none"> • Construction of interchanges and local access roads to enable east-west movement independent of the highway • Provide access from the west of the proposed highway (including the bypass) to the east via the proposed overpasses or underpasses. 	<p>Negative:</p> <ul style="list-style-type: none"> • Construction works could alter access and travel routes • Some rural/agricultural properties to the West of the bypass will be severed from the wider Woolgoolga area (resulting in the feeling of psychological separation) <p>Positive:</p> <ul style="list-style-type: none"> • Increased cohesion within the Woolgoolga township due to the diversion of heavy vehicles and through traffic away from the existing highway and Woolgoolga • Most of the properties that are currently to the west of the highway would be to the east of the bypass - enabling access to Woolgoolga without crossing the highway 	<ul style="list-style-type: none"> • Potential disruption to existing travel movements during the construction stage to be considered during the preparation of a work program for the staging and phasing of the construction of the Proposal. • Construction of overbridges as part of the interchanges at Sapphire (Gaudrons Road / Split Solitary Road), Moonee Beach, Emerald Beach and Graham Drive North. • Construction of overbridges at Headland Road, Killara Avenue, Smiths Road and Graham Drive South to provide additional East- West connection over the highway, • Replacement of overbridge at Diamond Head Drive, Sandy Beach
Amenity Effects	<p>Negative:</p> <ul style="list-style-type: none"> • Noise impacts on properties which are close to the Proposal - including construction compounds and batch plants. <p>Positive:</p> <ul style="list-style-type: none"> • Noise levels as a result of the Proposal would overall not be appreciably different than those experienced currently, and would 	<p>Negative:</p> <ul style="list-style-type: none"> • Temporary construction noise impacts including blasting in some areas. • Introduces new noise level to rural properties along the bypass route • There will be moderate visual impacts <p>Positive:</p> <ul style="list-style-type: none"> • Increase in amenity (less noise, increased 	<ul style="list-style-type: none"> • Provision of appropriate noise mitigation measures. • Urban design and scenic management of the upgrade to comply with the NSW RTA Pacific Highway Urban Design Framework. • Appropriate environmental controls during construction (ie development of a Construction environment management

	be lower than those experienced if the Pacific Highway is not upgraded	safety) in Woolgoolga due to the diversion of heavy and through traffic <ul style="list-style-type: none"> • Increased road safety in Woolgoolga 	plan).
Access and Movement Pattern	<p>Negative:</p> <ul style="list-style-type: none"> • Potential temporary road closures and/ or traffic disruptions during construction stage • Reduction in the number of direct access points along the highway • Longer travel/access times <p>Positive:</p> <ul style="list-style-type: none"> • Upgrade of the highway would facilitate planned future development along the northern beaches. • Increased safety and efficiency due to high standard dual carriageway highway and grade-separated interchanges • Local traffic can travel on local access roads increasing safety 	<p>Negative:</p> <ul style="list-style-type: none"> • Potential temporary access and traffic disruption during construction stage • Change to some individual property access arrangements <p>Positive:</p> <ul style="list-style-type: none"> • Increased safety and efficiency due to high standard dual carriageway highway and grade- separated interchanges • Improved safety in Woolgoolga for vehicular/ pedestrian/cyclist movement • Improved access for local traffic in Woolgoolga 	<ul style="list-style-type: none"> • Highway upgraded to improve road safety and transport efficiency and to facilitate planned future development along the northern beaches. • Interchanges built close to Woolgoolga and other beachside towns to enable easy access to town. • Local access roads to be constructed adjacent to the highway to separate local and through traffic. • Property access arrangements further developed in consultation with affected property owners. • Disruption to access for local roads and properties to be minimised during construction
Land Use and Property Impacts	<p>Negative:</p> <ul style="list-style-type: none"> • Partial and total acquisition of properties <p>Positive:</p> <ul style="list-style-type: none"> • No future development zone is impacted • Most development is within the existing road reserve • Upgrade of the highway to facilitate planned future development along the northern beaches. 	<p>Negative:</p> <ul style="list-style-type: none"> • Partial and total acquisition of properties • Would directly impact on 40 agricultural properties • Minimal impact on the South Woolgoolga Urban Investigation Area <p>Positive:</p> <ul style="list-style-type: none"> • Does not impact on the West Woolgoolga Release area • Does not impact any urban zoned properties 	<ul style="list-style-type: none"> • Management measures relating to agricultural property impacts are outlined in working paper 5: Agricultural assessment

<p>Effects on Business</p>	<p>Negative:</p> <ul style="list-style-type: none"> • Potential temporary disruptions during construction • Access from the highway is restricted and may increase travel time to the businesses <p>Positive:</p> <ul style="list-style-type: none"> • Potential temporary increase in local employment during the construction stage • Business access on highway will now be from local access road and may increase local patronage 	<p>Negative:</p> <ul style="list-style-type: none"> • Minor reduction in business due to reduction in passing traffic <p>Positive:</p> <ul style="list-style-type: none"> • Potential temporary increase in local employment during the construction stage. • Possible increase in local patronage of businesses due to increase in amenity and accessibility • Possible temporary increase in patronage of local businesses during the construction of the highway 	<ul style="list-style-type: none"> • Ensure there is signposting along the Pacific Highway, indicating that food, supplies and services are available – especially at Moonee Beach and Woolgoolga.
<p>Effects on Tourism</p>	<p>Negative:</p> <ul style="list-style-type: none"> • Potential increase in travel times during the construction period. <p>Positive:</p> <ul style="list-style-type: none"> • Potential increase in tourism due to improved road safety and reduced travel times - especially in peak holiday season 	<p>Negative:</p> <ul style="list-style-type: none"> • Potential temporary disruptions to tourist activities occurring at or near construction, particularly through the State Forest. • Through traffic bypass the town <p>Positive:</p> <ul style="list-style-type: none"> • Increased amenity of Woolgoolga as a tourist destination due to diversion of heavy vehicles and through traffic 	<ul style="list-style-type: none"> • Ensure there is signposting along the Pacific Highway, indicating the availability of tourist facilities.

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