



Roads and Traffic Authority of NSW

Oxley Highway to Kempsey Upgrading the Pacific Highway Environmental Assessment

MAIN VOLUME

September 2010



GHD Pty Ltd
ABN 39 008 488 373

Level 3, GHD Tower
24 Honeysuckle Drive
NEWCASTLE NSW 2300

Phone: +61 2 4979 9999

Fax: +61 2 4979 9988

Email: ntlmail@ghd.com

ISBN: 978-1-921766-49-7

PART A – INTRODUCTION AND NEED FOR THE PROPOSAL

1. Introduction

The proposed upgrade of the Pacific Highway between the Oxley Highway and Kempsey (the Proposal) is part of the Pacific Highway Upgrade Program, being implemented by the NSW Roads and Traffic Authority (RTA). The Pacific Highway Upgrade Program (see **Figure 1-1**) is a joint commitment by the NSW and Federal Governments to provide continuous dual carriageway on the Pacific Highway between Hexham (near the F3 Freeway) near Newcastle and the Queensland border.

The Proposal is located within the Port Macquarie-Hastings and Kempsey local government areas and would commence approximately 700 metres north of the Oxley Highway interchange, tying in with the existing dual carriageways to the south, and continue northwards to tie in at Stumpy Creek with the dual carriageways of the proposed Kempsey to Eungai Pacific Highway upgrade. At the northern end of the Proposal, the eastern service road would extend approximately 320 metres further to the north of Stumpy Creek to tie in with the proposed Kempsey to Eungai upgrade. The majority of the Proposal would require duplication of the existing highway. Two main sections of the Proposal would deviate from the alignment of the existing highway. These are in the vicinity of the Hastings River and the Wilson River. The existing highway would be retained wherever possible for use as a service road or local road connection. The location of the Proposal is shown in **Figure 1-2** and **Figure 1-3**.

The general features of the Proposal are:

- Approximately 37 kilometres of four-lane dual carriageway (two lanes in each direction) with a wide median to allow a future upgrade to six lanes.
- A new alignment across the Hastings River and Wilson River floodplains and minor realignment within Maria River State Forest.
- 100 year average recurrence interval flood immunity, with the exception of the Wilson River floodplain where the road embankment would be above the 20 year average recurrence interval flood level.
- A bypass of Telegraph Point. Access to and from Telegraph Point would be provided by a new grade separated interchange in the area of Blackmans Point Road south of Telegraph Point and a half interchange in the area of Haydons Wharf Road north of Telegraph Point.
- Overbridges located to the south of Sancrox Road, at Bill Hill Road, Mingaletta Road, Wharf Road, Kundabung Road and Middle Gate Road.
- The existing Pacific Highway near Blackmans Point Road and Yarrabee Road passing under the Proposal.
- Major cuttings through Cooperabung Hill.
- New major bridge structures for the Hastings River and Wilson River crossings, and the crossing of the North Coast Railway to the north of the Wilson River.
- Smaller bridges for a number of creek crossings.
- Provision of two new rest areas south of Mingaletta Road.
- Provision of a service road network using sections of the existing highway, existing local roads and new roads.

Figure 1-1 Pacific Highway Upgrade Program

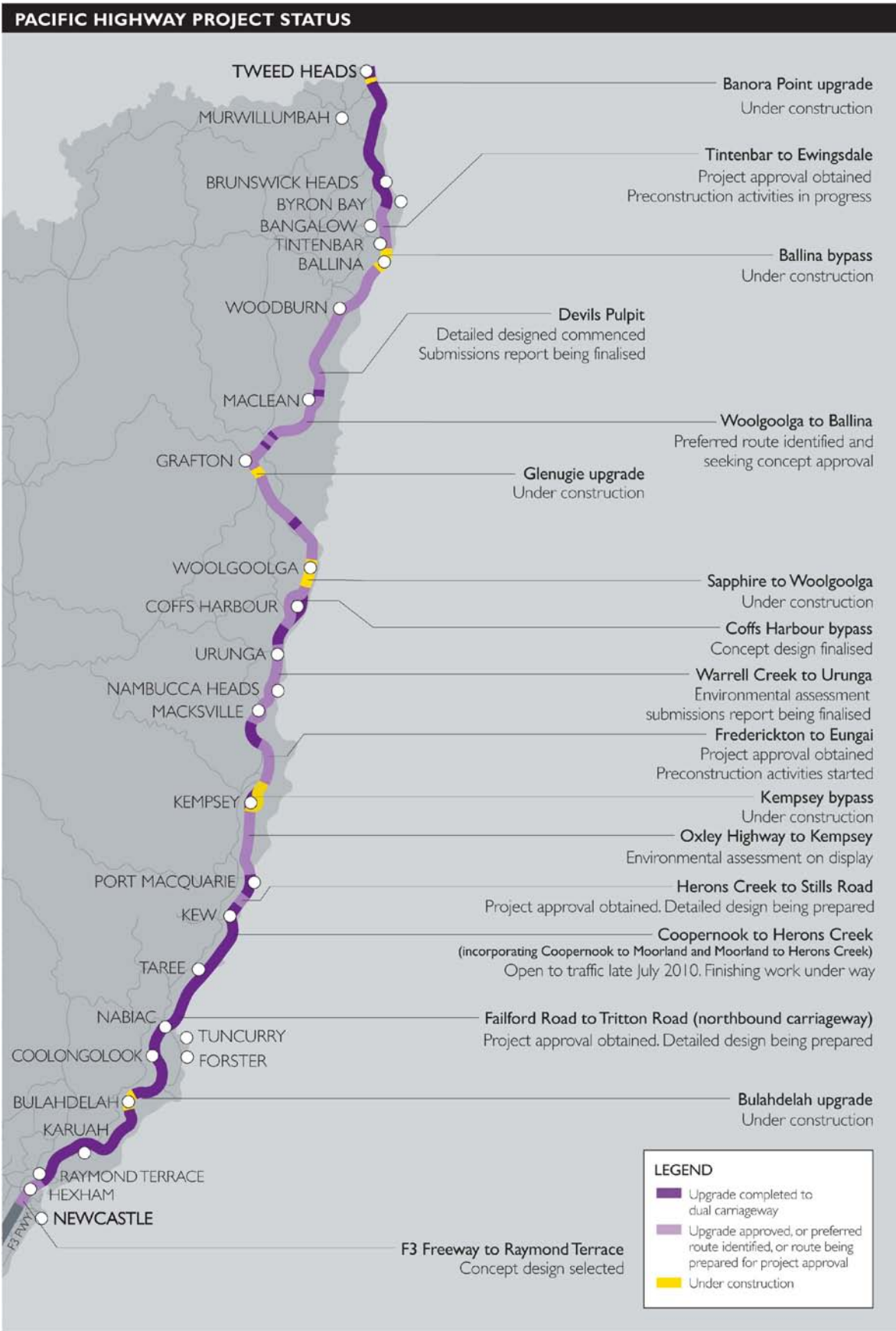
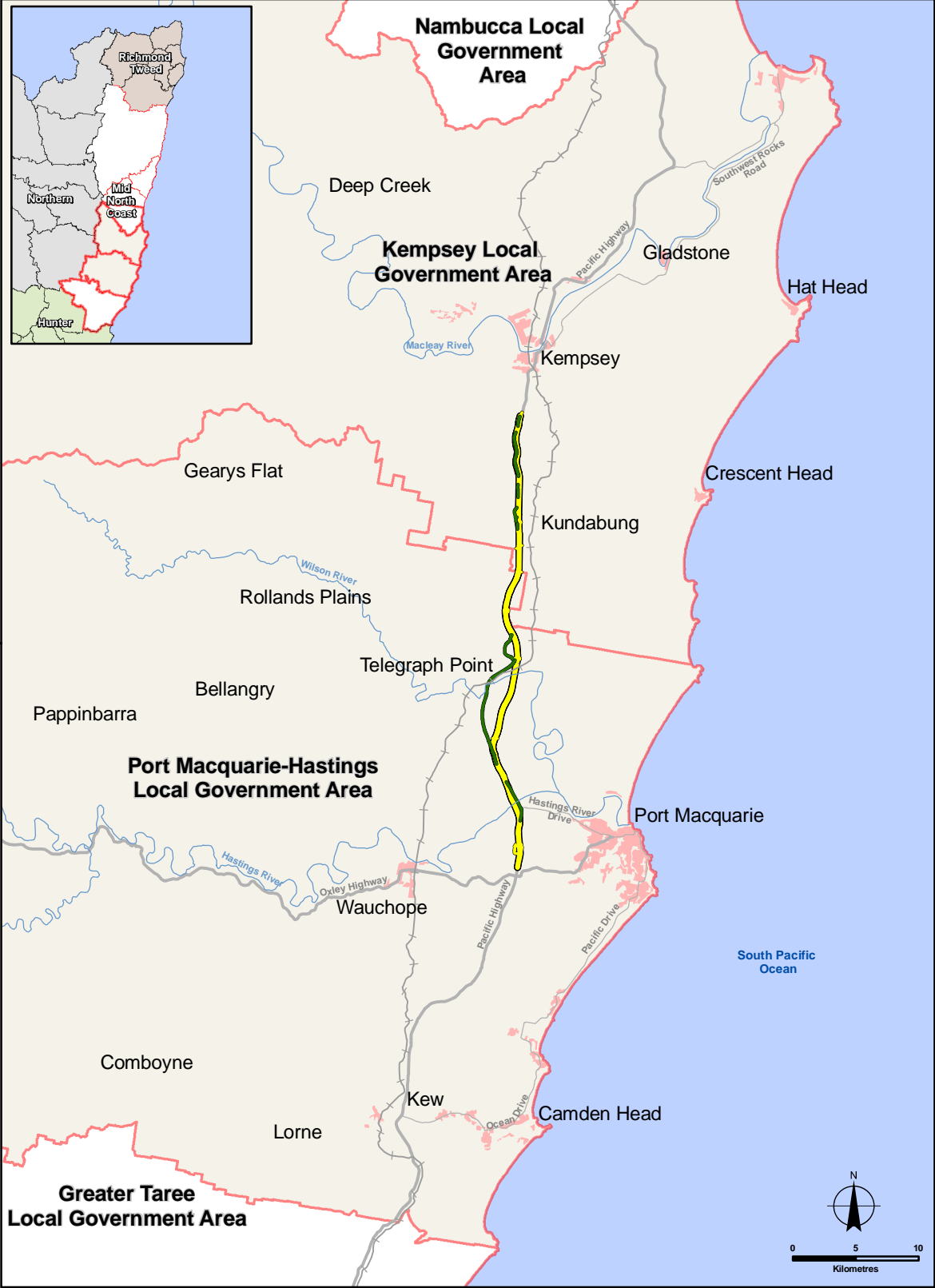


Figure 1-2 Regional and local context



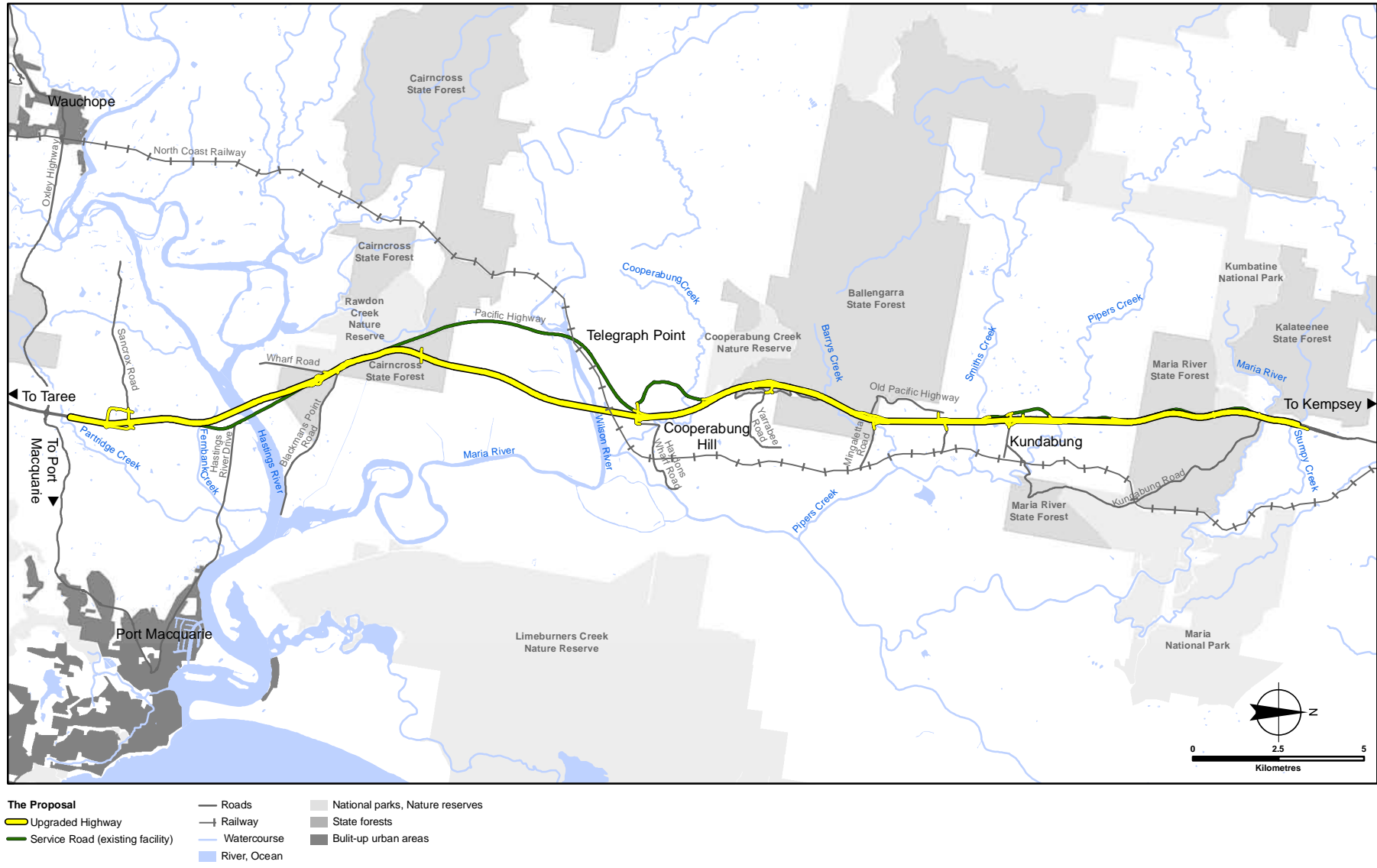
The Proposal
— Upgraded Highway
— Service Road (existing facility)

— Roads
— North Coast Railway
— Watercourse
— River, Ocean

— Built-up urban areas
— Kempsey and Hastings
— local government area boundary

— Mid North Coast region
— Hunter region
— Northern region
— Richmond Tweed region

Figure 1-3 Locality plan



For more details on the Proposal's design, refer to **Chapter 6 The Proposal** and **Chapter 7 Construction of the Proposal**.

Development of the Proposal commenced in December 2004 and has occurred in three key phases. Each of these phases has involved community and stakeholder consultation, desktop studies and field investigations to examine environmental, social, economic, traffic and transportation opportunities and constraints. The three phases have been:

- Route options development.
- Preferred route selection.
- Environmental assessment.

When deciding on the location of the preferred option, a thorough assessment process was completed in consultation with the community and other stakeholders, and in recognition of the principles of ecologically sustainable development. This was done to ensure that the preferred option achieved a balance between social, environmental, engineering and economic constraints and opportunities.

Substantial work was undertaken during the earlier assessment of route options to avoid or minimise potential impacts of the Proposal. This work is described in more detail in **Section 3.3**. Copies of the reports and other information relating to the investigations undertaken during the first two phases are available on the project website at www.pacifichighwayupgrade.com.au.

The design for the Proposal has been advanced to a concept design level. The details and dimensions included in the design are therefore indicative and would be subject to refinement during the detailed design phase. Any design refinements or substantial modifications to the Proposal would be considered during the detailed design phase would be undertaken in accordance with applicable statutory planning requirements.

The NSW Government has recognised the importance of the Pacific Highway Upgrade Program to the national, State and local economies by declaring the Program to be critical infrastructure. The Minister for Planning declared the Proposal to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) applies on 5 December 2006. The Proposal will be assessed under Part 3A as a major project and follow the Part 3A project approval process. The Part 3A process is further discussed in **Section 4.1**.

This Environmental Assessment report has been prepared in response to the NSW Department of Planning Director-General's environmental assessment requirements, which were issued on 28 August 2007, and amended on 14 November 2008. The amended Director-General's environmental assessment requirements are included at **Appendix A**. **Table 1-1** provides a checklist outlining where particular issues listed in the Director-General's environmental assessment requirements have been addressed in this Environmental Assessment. At the commencement of each relevant chapter of this Environmental Assessment, the specific Director-General's environmental assessment requirements addressed in that chapter are listed.

Table 1-1 Director-General's environmental assessment requirements

Environmental assessment requirements	Where addressed
<p>General requirements</p> <p>The Environmental Assessment (EA) must include the following:</p> <ol style="list-style-type: none"> 1. An executive summary 2. A detailed description of the Project including: <ul style="list-style-type: none"> • Route alignment and corridor width. • Design elements (e.g. requirements for LOS, pedestrian and cyclists, rest areas and service centres etc). • Differentiate the limits of the Project with respect to the existing Pacific Highway, including operational/ maintenance responsibilities. • Potential staging. • Ancillary facilities (e.g. compound site, batching plants etc). • Resourcing (e.g. construction material needs, spoil disposal, natural resource consumption including water). 3. An assessment of the key issues, with the following aspects addressed for each key issue (where relevant): <ul style="list-style-type: none"> • Describe the existing environment. • Assess the potential impacts of the proposal at both construction and operation stages, in accordance with relevant policies and guidelines. Both direct and indirect impacts must be considered including potential interactions with the existing Pacific Highway (as relevant). • Identify how relevant planning, land use and development matters, (including relevant strategic and statutory matters), have been considered in the impact assessment and/or in developing management/ mitigation measures. • Describe measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the impacts of the Project and the residual impacts. 4. A draft Statement of Commitments (SoC). The SoC must incorporate or otherwise capture all measures to avoid, minimise, manage, mitigate, offset and/or monitor impacts identified in the impact assessment sections of the EA and ensure that the wording of the SoC clearly articulates the desired environmental outcome of the commitment. The SoC must be achievable, measurable (with respect to compliance), and time specific, where relevant. 5. Certification by the author of the Environmental Assessment that the information contained in the Assessment is neither false nor misleading. 	<p>Executive summary</p> <p>Chapter 6 The Proposal</p> <p>Chapter 7 Construction of the Proposal</p> <p>Chapters contained within Part C of this Environmental Assessment</p> <p>Appendix B– Draft Statement of Commitments</p> <p>Statement of validity</p>

Environmental assessment requirements	Where addressed
Key issues Strategic Justification and Project - outline the strategic outcomes for the Pacific Highway Upgrade Program (PHUP), including with respect to strategic need and justification, the aims and objectives of relevant State planning policies, the principles of Ecologically Sustainable Development, and cumulative and synergistic impacts associated with the Program as a whole. Identify how the project fits within these strategic outcomes and how impacts associated with the project will be considered and managed to achieve acceptable environmental planning outcomes across the PHUP.	Chapter 2 Strategic need for the Proposal Chapter 3 Proposal need, objectives and alternatives Chapter 10 Land use and property Chapter 21 Principles of ecologically sustainable development Chapter 22 Strategic and Proposal justification
Project Justification - describe the need for and objectives of the project; alternatives considered (including an assessment of the environmental costs and benefits of the project relative to alternatives), and provide justification for the preferred project taking into consideration the objects of the <i>Environmental Planning and Assessment Act 1979</i> .	Chapter 2 Strategic need for the Proposal Chapter 3 Proposal need, objectives and alternatives Chapter 22 Strategic and Proposal justification
Land Use and Property – including but not limited to: <ul style="list-style-type: none"> • Directly-affected properties and landuses adjacent to the project, including: impacts to landuse viability and future development potential. • Property allotment, land sterilisation and severance impacts. • Impacts on the connectivity (including pedestrian and cycleway opportunities) and contiguity of existing and planned settlement and activity clusters around Telegraph Point, Sancroix Road and Kundabung. • The attainment of the objectives of the <i>Draft Mid-North Coast Farmland Mapping Project</i>. • The attainment of the objectives of the <i>Draft Mid-North Coast Strategy</i>. 	Chapter 10 Land use and property
Social and Economic – including but not limited to: <ul style="list-style-type: none"> • Regional economic impacts to the agricultural sector taking into account the loss of regional and State Significant farmland as identified in the <i>Draft Mid-North Coast Farmland Mapping Project</i> (Department of Planning, July 2007). • Local community socio-economic impacts associated with access, landuse, property and amenity related changes. • The overall viability, property infrastructure (ie. sheds, water supplies, etc), profitability, productivity, sustainability and natural resource values of businesses (including agricultural producers and Forests NSW). • Impacts on oyster priority areas in accordance with the <i>NSW Oyster Industry Sustainable Aquaculture Strategy 2006</i>. 	Chapter 11 Social and economic

Environmental assessment requirements	Where addressed
<p>Surface and Ground Water – including but not limited to:</p> <ul style="list-style-type: none"> Water quality taking into account impacts from both accidents and runoff and considering relevant environmental water quality criteria specified in the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000</i>. Groundwater including cumulative impacts on regional hydrology. The assessment must consider: extent of drawdown; impacts to groundwater quality; discharge requirements; and implications for groundwater-dependent surface flows (including springs and drinking water catchments), groundwater-dependent ecological communities and groundwater users. Identifying changes to existing flood regimes, in accordance with the <i>Floodplain Development Manual</i> (former Department of Natural Resources, 2005), including impacts to existing receivers and infrastructure and the future development potential of affected land. Demonstrating consideration of the effects of sea level rise, changes to rainfall frequency and/or intensity as a result of climate change on the project. Waterways to be modified as a result of the project, including ecological, hydrological and geomorphic impacts (as relevant) and measures to rehabilitate the waterways to pre-construction conditions or better. 	<p>Chapter 12 Hydrology</p> <p>Chapter 13 Water quality</p> <p>Chapter 14 Groundwater</p>
<p>Flora and Fauna – including but not limited to:</p> <ul style="list-style-type: none"> Threatened terrestrial and aquatic species, populations, ecological communities and/or critical habitat. Native vegetation loss; weed infestation; habitat fragmentation; impacts to wildlife and riparian corridors; impacts to ground-water dependent communities, riparian and aquatic habitat including: Seagrass and mangrove stands at the Hastings River, Wilson River and associated wetland areas evaluated in accordance with the NSW Fisheries document <i>Policy and Guidelines for Aquatic Habitat Management and Fish Conservation 1999</i> (Section 6.4 and 6.5 specifically). Regional scale cumulative impacts and identify the significance of the impacts of the project in the context of the PHUP. 	<p>Chapter 15 Flora and fauna</p>

Environmental assessment requirements	Where addressed
<p>Noise and Vibration – including but not limited to:</p> <ul style="list-style-type: none"> • Construction noise and vibration including construction traffic noise and blasting impacts. • Operational road traffic noise impacts including consideration of local meteorological conditions (as relevant) and any additional reflective noise impacts from proposed noise mitigation barriers. • The assessment(s) must take into account the following guidelines as relevant: <i>Environmental Criteria for Road Traffic Noise</i> (EPA 1999), <i>Environmental Noise Management Manual</i> (RTA, 2001), <i>Environmental Noise Control Manual</i> (EPA 1994), <i>Assessing Vibration: A Technical Guideline</i> (DEC 2006b); and <i>Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration</i> (ANZECC1990). 	Chapter 16 Noise and vibration
<p>Visual Amenity and Design – including but not limited to:</p> <ul style="list-style-type: none"> • Design (including noise barriers, retaining walls and landscaping) consistent with overall design of the PHUP and the existing (and desired) character of affected localities. • Consideration of the <i>Noise Wall Design Guideline</i> (RTA 2006b). • Visual significance of the crossings at the Hastings and Wilson Rivers (including district views across floodplain). 	Chapter 17 Visual amenity and urban design
<p>Traffic and Transport – including but not limited to:</p> <ul style="list-style-type: none"> • Operational traffic and transport impacts to the local, regional and Forests NSW road network (existing and planned), including impacts from traffic rerouting and modified access to the upgraded highway. • Construction traffic impacts (including spoil haulage). • Public transport impacts (including on bus services). • Interactions with rail infrastructure and the viability of a shared road and rail corridor. 	Chapter 18 Traffic and transport
<p>Indigenous heritage – including but not limited to:</p> <ul style="list-style-type: none"> • Aboriginal cultural heritage values of the route, specifically on both artefact, potential archaeological deposits and landscape cultural values (such as watercourses) and mitigation measures, where relevant. • Regional scale cumulative impacts and identify the significance of the impacts of the project in the context of the PHUP. 	Chapter 19 Aboriginal heritage

Environmental assessment requirements	Where addressed
<p>Environmental Risk Analysis - Notwithstanding the above key assessment requirements, the EA must include an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of this key environmental impact must be included in the EA.</p>	<p>Chapter 9 Environmental risk analysis</p>
<p>Consultation You should undertake an appropriate and justified level of consultation with relevant parties during the preparation of the EA, including:</p> <ul style="list-style-type: none"> • Local, State or Commonwealth government authorities and service providers, including the Department of Environment and Climate Change, the Department of Primary Industries, the Department of Water and Energy, Australian Rail Track Corporation, Kempsey Shire Council and Port Macquarie-Hastings Council. • Specialist Interest Groups including Local Aboriginal Councils, oyster growers. • The public, including affected landowners. <p>The EA must describe the consultation process, document all community consultation undertaken to date and identify the issues raised (including where these have been addressed in the EA).</p>	<p>Chapter 5 Community consultation</p> <p>Chapter 11 Social and economic</p> <p>Chapter 13 Water quality</p> <p>Chapter 19 Aboriginal heritage</p>