

Section 3

Issue Identification and Prioritisation

Preamble

This section describes how the environmental issues assessed in the EIS were identified and prioritised.

A comprehensive list of all relevant environmental issues was first assembled through consultation with the government agencies, a review of available environmental monitoring data, publicly available information about the Karuah Quarry and Karuah East Quarry and a review of relevant legislation, planning documents and environmental guidelines.

Following identification of these environmental issues, a review was undertaken of the preliminary design of the Project and the components of the local environment to identify risk sources and potential environmental impacts for each environmental issue. These issues and the need for mitigation measures were regularly reviewed as feedback was received through consultation with the local community. An analysis of the risk posed by each potential impact was then compiled assuming the adoption of standard mitigation measures with a risk rating assigned based on likelihood and consequence of occurrence. This risk rating was reviewed and adjusted as the EIS approached completion once the full set of site specific mitigation measures were recorded. A copy of the Risk Assessment is included as **Appendix 4**.

By considering the frequency with which each environmental issue was raised or identified, the associated environmental impacts and the allocated risk ratings, the relative priority of each issue was determined. This order of priority was then used to provide an order of assessment and depth of coverage within Section 5.

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3.1 INTRODUCTION

In order to undertake a comprehensive assessment of the environmental impacts arising from the Project, appropriate emphasis needs to be placed on those issues likely to be of greatest significance to the local environment, neighbouring landowners and the local and broader community. To ensure this has occurred, a program of community, industry and government agency consultation, and a review of environmental planning documentation has been undertaken to identify relevant environmental issues for assessment. This was followed by an analysis of the risk posed by each potential impact in order to prioritise the assessment of the identified environmental issues within the EIS.

3.2 CONSULTATION

3.2.1 Community Consultation

R.W. Corkery & Co Pty Ltd undertook the community consultation for the Project on behalf of the Applicant. The consultation was an ongoing process with the key components outlined below.

July 2017

Formal consultation with surrounding landowners commenced on 28 July 2017 when RWC distributed a *Community Information Newsletter* to eighteen surrounding landowners. This newsletter provided a summary of the Project and the development assessment process and an invitation to community members to raise any concerns or questions regarding the Project. No responses were received from surrounding landowners following the distribution of the newsletter.

January 2018

An advertisement was placed in the *Myall Coast News of the Area* newspaper on 25 January 2018 inviting Aboriginal people with cultural knowledge in determining the significance of Aboriginal objects and/or places in the vicinity of the Site to register their interest in a process of community consultation. Section 3.2.2 provides a more detailed description of the consultation process undertaken with Aboriginal stakeholders.

February 2018

Amanda Albury, the secretary of the “Ironstone Community Action Group” (ICAG), initiated contact with RWC regarding the Project in early February 2018. Consultation with ICAG members continued from this time via numerous emails, telephone conversations and face-to-face meetings. Key concerns identified by ICAG members included impacts on visibility, air quality, vegetation clearing and water quality.

October 2018

A flyer was distributed to the residents of Karuah, North Arm Cove and Carrington in the week commencing 29 October 2018 seeking expressions of interest from the community for consultation and advising that representatives from RWC would be in the Karuah area in the week commencing 12 November 2018 to discuss the Project. No responses were received from the community following the distribution of the flyer.

Due to the lack of community response, Amanda Albury (Secretary of ICAG) was contacted to facilitate a meeting between RWC representatives, ICAG members and surrounding landowners. It was agreed that RWC representatives would visit the Karuah area in the week commencing 19 November 2018 to meet with ICAG members and surrounding landowners to discuss community concerns.

November 2018

A meeting between representatives of RWC, members of ICAG and surrounding landowners was held at Blue Rock Close on 19 November 2018. The principal aim of the meeting was to identify community concerns and aspects of the local area that were valued by the local community. A total of seven community members were in attendance. Valued attributes of the local area that were identified at the meeting included native flora and fauna, clean air and the tranquillity of the local area. A number of key concerns relating to the Project were also raised at this meeting including potential impacts to air quality (refer to Section 5.1), health (in particular silicosis) (refer to Section 5.1), noise and vibration (refer to Section 5.2), ecology (refer to Section 5.5), visibility (refer to Section 5.3) and surface water quality (refer to Section 5.6). It was agreed at this meeting that a Community Information Meeting would be held prior to the Christmas break to give RWC the opportunity to present an overview of the Project and the potential environmental impacts. It was also agreed that the meeting would be structured in a way that would provide community members with sufficient opportunity to ask questions and discuss any concerns relating to the Project. To this end, a flyer was distributed to the residents of Karuah, North Arm Cove and Carrington in the week commencing 3 December 2018 to invite community members to a Community Information Evening to be held on 12 December 2018.

December 2018

A community meeting was held on 12 December 2018 at the Karuah Community Hall. The meeting was attended by 11 people including the attendees of the meeting on 19 November 2018 and the landowners that were visited by the Project Team. At the meeting a presentation on the Project, potential impacts and the outcomes of the assessment to date were presented to attendees. A summary of the matters discussed at this meeting is included in Annexure 2 of RWC (2019b).

Local business owners in Karuah or their employees were also interviewed informally on 12 December 2018. The interviews were unstructured and the names of interviewees were not collected in this process. A summary of the outcomes of this consultation is presented in Annexure 2 of RWC (2019b). There was a distinct divide evident in the responses from business owners or their employees. Those in the community that might benefit from increased local activity or were familiar with extractive industry operations supported the Project, while those that lived closer to the Project Site or who personally knew the Mr Kiely were more concerned.

January 2019

A range of concerns were raised by community members at the Community Meeting held in December 2018 that we collated and formalised in correspondence received from ICAG on 30 January 2019 (this submission is included in Annexure 2 of RWC (2019b)). The concerns of the community were taken into consideration as the design and management controls for the Project were finalised for the EIS. A tabulated response, including cross references to where

specific matters are addressed in the EIS, is provided as **Appendix 6**. It is considered that the concerns have been adequately addressed in the assessments presented in Section 5, however it is also expected that ongoing consultation will be an important component in listening, informing and educating the local community. These commitments are discussed in more detail in Section 5.13.7 in relation to ongoing social impact management.

3.2.2 Aboriginal Stakeholder Consultation

The Karuah area has strong historical and cultural ties for the Aboriginal community, particularly the Worimi people. The area was formerly the location for the Karuah Aboriginal Mission. Through the Local Aboriginal Land Council, a number of programs are implemented to encourage community interaction, cultural learning and the practice of cultural traditions. Locations along the coast, typified in the Dark Point (Little Gibber) Aboriginal Place were places of meeting, celebration and ceremony for the Worimi people and neighbouring tribal groups.

Relevant stakeholders from the Aboriginal community were identified using a process generally consistent with the *Aboriginal Cultural Heritage Community Consultation Requirements for Proponents* (DECCW, 2010). Following the completion of Steps 4.1.2 and 4.1.3 of these *Consultation Requirements*, the following three groups registered their interest in the Project.

- Didge Ngunawal.
- Divine Diggers.
- Karuah Local Aboriginal Land Council (LALC).

The registered Aboriginal parties were provided with information about the Project and the proposed cultural heritage assessment process in the form of a proposed methodology. The purpose of the proposed methodology was to explain the Project and consultation process in detail, define the roles of the registered Aboriginal parties and the Applicant, identify protocols for obtaining and using sensitive cultural information and to give the registered Aboriginal parties an opportunity to comment on the proposed assessment method and provide any relevant information on the cultural significance of the Site.

Representatives from the Karuah LALC eventually participated in the field survey undertaken on 17 May 2018, the results of which are described in Section 5.8. During the field surveys, the registered Aboriginal parties were asked to contribute their knowledge on the Site and broader area. No comment was received from RAPs following the distribution of the draft Aboriginal Cultural Heritage Report.

A meeting with David Feeney, the acting CEO of the Karuah Local Aboriginal Land Council was held on 21 February 2019 to inform the background and assessment of potential social changes that may be experienced by the Aboriginal community in Karuah.

3.2.3 Industry Consultation

RWC consulted with Hunter Quarries throughout the design phase of the Project in order to adequately address the cumulative impacts of Hunter Quarries' operations and the Project. To this end, a meeting was held between representatives of Hunter Quarries (S. Wiseman,

G. Dressler and T. Grugeon) and RWC (R. Corkery and C. O'Connor) on 15 February 2018 principally to discuss the cumulative environmental impacts of the combined operations. During this meeting and subsequent meetings and discussions, Hunter Quarries representatives recognised that it would be beneficial for both quarries to coordinate monitoring for the combined operations. RWC was requested to rely upon the published information about the Karuah and Karuah East Quarries to undertake the assessments of cumulative impacts in the EIS for the Karuah South Quarry.

Hunter Quarries representatives expressed concerns regarding Stage 2 of the Project and the potential impacts on the Karuah Quarry. These concerns primarily related to potential interactions between the two quarries until the cessation of the licence Hunter Quarries has to operate the Karuah Quarry and the impacts on rehabilitation following the cessation of Karuah Quarry operations. To this end, RWC continued consultation with Hunter Quarries representatives in order to identify mutually beneficial outcomes for both operators. Further consultation with Hunter Quarries is proposed between the Operator of the Karuah South Quarry and Hunter Quarries in the event that the Project is approved to ensure the minimisation of cumulative impacts and the coordination of environmental monitoring programs.

3.2.4 Government Agency Consultation

3.2.4.1 Introduction

Both formal and informal consultation was undertaken with a range of government agencies at State and local levels throughout the preparation of this document. The following subsections provide an overview of government agency consultation in formalised meetings and throughout the ongoing development of the Project.

3.2.4.2 Secretary's Environmental Assessment Requirements

A *Preliminary Environmental Assessment* was prepared and submitted to the Department of Planning and Environment (DPE) to support a request for Secretary's Environmental Assessment Requirements (SEARs) for the Project. The Preliminary Environmental Assessment was also provided to the following government agencies and public authorities, who were subsequently contact by DPE with a request to provide input to the formulation of the SEARs.

- NSW Office of Environment and Heritage (OEH) (including the Heritage Branch).
- NSW Environment Protection Authority (EPA).
- Division of Resources and Geoscience (DRG).
- Department of Industry – Crown Lands and Water (CL+W).
- NSW Rural Fire Service (RFS).
- NSW Roads and Maritime Services (RMS).

The SEARs and associated correspondence were initially provided to the Applicant on 2 November 2017. Revised SEARs were provided on 2 August 2018 to provide for amendments to the Project design. A full copy of the revised SEARs is reproduced in **Appendix 1** of this document.

Appendix 2 provides a tabulated summary of the DPE issued SEARs, along with the section of the EIS in which these are addressed.

The following provides a summary of the key assessment requirements provided by each of the consulted government agencies, along with the section of the EIS in which each is addressed.

Office of Environment and Heritage

The OEH requested that the EIS include an adequate assessment of the Standard SEARs requirements. No project-specific SEARs were provided for this Project. Broad issues to consider include the following.

- Biodiversity (refer to Section 5.5 and *Specialist Consultant Studies Compendium* (SCSC) – Part 4).
- Aboriginal cultural heritage (refer to Section 8 and SCSC – Part 7).
- Water and soils (refer to Sections 5.6, 5.7 & 5.10 and SCSC – Parts 5 & 6).
- Flooding and coastal erosion (refer to Section 5.6 and SCSC – Part 5).

NSW Environmental Protection Authority

The EPA, the statutory authority for the regulation of pollution in NSW, requested that the EIS consider the potential for impact on the following key environmental parameters.

- Air quality (refer to Section 5.1 and SCSC – Part 1).
- Noise and vibration (refer to Section 5.2 and SCSC – Part 2).
- Water and soil quality and management (refer to Sections 5.6, 5.7 & 5.10 and SCSC – Parts 5 & 6).
- Waste management (refer to Section 2.10).
- Dangerous goods, chemical storage and bunding (refer to Section 5.11.2).

Department of Planning and Environment - Division of Resources and Geoscience

The DRG note that as hard rock aggregate is not a prescribed mineral, the DRG has no statutory role in authorising or regulating the extraction of this commodity. This notwithstanding, the DRG have requested the EIS include a resource assessment which:

- documents the size and quality of the resource and demonstrates that both have been adequately assessed (refer to Section 2.2.3; and)
- documents the methods used to assess the resource and its suitability for the intended applications (refer to Section 2.2.3).

DRD have also requested that the Proponent should be required to provide annual production data for the subject site to DRG as a condition of any new or amended development consent.

Department of Industry – Crown Lands and Water

The CL&W identified the following key assessment requirement of the EIS.

- The identification of an adequate and secure water supply for the life of the project. Confirmation that water can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased (refer to Section 5.6 and SCSC – Part 5).
- A detailed and consolidated site water balance (refer to Section 5.6 and SCSC – Part 5).
- Assessment of impacts on surface and ground water sources (both quality and quantity), related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, and groundwater dependent ecosystems, and measures proposed to reduce and mitigate these impacts (refer to Section refer to Sections 5.6 & 5.7 and SCSC – Parts 5 & 6).
- Proposed surface and groundwater monitoring activities and methodologies (refer to Section refer to Sections 5.6 & 5.7 and SCSC – Parts 5 & 6).
- Consideration of relevant policies and guidelines (refer to Sections 5.6 & 5.7 and SCSC – Parts 5 & 6).
- Assessment of all impacts to current and potential agricultural resources, and proposed measures to avoid or mitigate these impacts (refer to Section 5.10).
- Identification of any Crown land affected by the Project and assessment of potential impacts (Not Applicable).

NSW Rural Fire Service

The NSW RFS requested that the EIS address the following matter relating to bushfire.

- The aim and objectives of *Planning for Bush Fire Protection 2006* (refer to Section 5.11.3).
- Identification of potential ignition sources during construction and operation of the development (refer to Section 5.11.3).
- Storage of fuels and other hazardous materials (e.g. explosives for blasting) (refer to Section 5.11.2)
- Proposed bush fire protection measures for the development, including vegetation management and fire suppression capabilities (refer to Section 5.11.3).
- Operational access to the site for fire-fighting appliances (refer to Section 5.11.3).
- Emergency and evacuation planning (refer to Section 5.11.3).

NSW Roads and Maritime Services

RMS requests the EIS refer to a traffic and transport study prepared in accordance with the Roads and Maritime's *Guide to Traffic Generating Developments 2002* which includes the following detail.

- Assessment of all relevant vehicular traffic routes and intersections for access to/from the subject property (refer to Section 5.4 and SCSC – Part 3).
- Current traffic counts for affected traffic routes and intersections (refer to Section 5.4 and SCSC – Part 3).
- The anticipated additional vehicular traffic generated from both the construction and operational stages of the project (refer to Section 5.4 and SCSC – Part 3).
- The distribution on the road network of the trips generated by the proposed development. It is requested that the predicted traffic flows are shown diagrammatically to a level of detail sufficient for easy interpretation (refer to Section 5.4 and SCSC – Part 3).
- Consideration of the traffic impacts on existing and proposed intersections, in particular, the first classified road intersection/s encountered following the local road network from the site, and the capacity of the local and classified road network to safely and efficiently cater for the additional vehicular traffic generated by the proposed development during both the construction and operational stages. The traffic impact shall also include the cumulative traffic impact of other proposed developments in the area (refer to Section 5.4 and SCSC – Part 3).
- Identify the necessary road network infrastructure upgrades that are required to maintain existing levels of service on both the local and classified road network for the development. In this regard, preliminary concept drawings shall be submitted with the EIS for any identified road infrastructure upgrades. However, it should be noted that any identified road infrastructure upgrades will need to be to the satisfaction of Roads and Maritime and Council (refer to Section 2.7)
- Traffic analysis of any major / relevant intersections impacted, using SIDRA or similar traffic model, including:
 - Current traffic counts and 10 year traffic growth projections (refer to Section 5.4 and SCSC – Part 3).
 - With and without development scenarios (refer to Section 5.4 and SCSC – Part 3).
 - 95th percentile back of queue lengths (refer to Section 5.4 and SCSC – Part 3).
 - Delays and level of service on all legs for the relevant intersections (refer to Section 5.4 and SCSC – Part 3).
- Electronic data for Roads and Maritime review (available upon request).

3.2.4.3 Additional NSW State Government Consultation

In addition to the SEARs correspondence, further consultation was undertaken with a number of government agencies and authorities to identify any additional matters relevant to the completion of the EIS. The following government bodies or agencies were consulted (date/s contacted shown in brackets).

- Division of Resources and Geoscience (28 November 2017)
- EPA (28 November 2017)
- Forestry Corporation (28 November 2017, 23 January 2018)
- Hunter Local Land Services (28 November 2017)
- Office of Environment and Heritage (28 November 2017)
- Office of Environment and Heritage – Heritage Division (28 November 2017, 22 January 2018)
- Rural Fire Service (28 November 2017)
- Roads and Maritime Services (28 November 2017, 15 February 2019)

3.2.4.4 Local Government Consultation

MidCoast Council

Formal consultation with MidCoast Council commenced on 28 November 2017 when RWC sent correspondence seeking Council's requirements for the EIS. No response to this correspondence was received. Further correspondence was sent to MidCoast Council on 19 January 2018 seeking a meeting with Council to discuss any requirements and issues for consideration in the EIS. Representatives from RWC met with Council representatives on 20 March 2018. The following key issues and/or requirements were identified by Council representatives during the meeting.

- The need to minimise visual impacts of the Project, especially from the Pacific Highway (refer to Section 5.3).
- The need for a detailed traffic assessment to be undertaken, although no issues were foreseen (refer to Section 5.4 and SCSC – Part 3).
- The need to avoid any potential impacts on local waterways (refer to Section 5.6 and SCSC – Part 5).
- A preference that MUSIC modelling be utilised during the surface water assessment.
- The need to follow the BDAR methodology during the ecological assessments (refer to Section 5.5 and SCSC – Part 4).
- A preference that biodiversity offsetting be undertaken on Site and in the local area as far as practicable (refer to Section 5.5 and SCSC – Part 4).
- The need to assess cumulative noise and air quality impacts with Hunter Quarries' operations (refer to Section 5.2 and SCSC – Part 2).
- The need to install a suitable septic system for on-site sewage management (refer to Section 2.8.6).

A further meeting was held with representatives of MidCoast Council on 19 November 2018 to discuss potential social impacts of the Project. During this meeting, Council representatives indicated that the SEARs provided adequate coverage of assessment requirements and confirmed that formal requirements from Council were not necessary. Council representatives commented that the location of the Quarry was appropriate given that it concentrated the impact of extractive operations and was in a relatively isolated location. General environmental and social concerns related to the following potential impacts.

- Visibility from the Pacific Highway (refer to Section 5.3).
- Environmental values associated with flora and fauna (refer to Section 5.5 and SCSC – Part 4).
- Cumulative impacts of the Project with Hunter Quarries' operations (refer to Sections 5.1, 5.2 & 5.4 and SCSC – Parts 1, 2 & 3).
- Blasting and vibration and perceived impacts within the community (refer to Section 5.2 and SCSC – Part 2).
- Increases in heavy vehicles and impacts on the community's perceptions of the area (refer to Section 5.4 and SCSC – Part 3).
- Rehabilitation and the need to demonstrate a plan for post-extraction (refer to Section 2.12).
- Water management and the need to ensure that waterways remain pristine and local water-based industries (oyster farming / fishing etc) remain unaffected (refer to Section 5.6 and SCSC – Part 5).
- The need to balance tourism and industry considerations (refer to Section 5.12 and SCSC – Part 8).

Port Stephens Council

Although formal consultation with Port Stephens Council was not required by DPE, correspondence was sent to Port Stephens Council on 21 November 2018 given the proximity of the Project to the Port Stephens LGA boundary. Council provided demographic statistics for the Karuah Region and identified the following key strategic documents for consideration in the EIS and Social Impact Assessment.

- *Karuah Growth Strategy 2011.*
- *Port Stephens Planning Strategy 2011.*
- *Port Stephens Community Strategic Plan 2018-2028.*

3.2.4.5 Commonwealth Government Consultation

Consultation with the Commonwealth Department of Environment and Energy (DoEE) was undertaken in relation to potential impacts to Matters of National Environmental Significance (MNES) to determine the requirement to refer the Project under the EPBC Act. It is noted that this consultation was undertaken by Ecoplanning Pty Ltd, the ecologists commissioned to undertake the Biodiversity Development Assessment Report (BDAR) for the Project.



Correspondence received from DoEE noted that a previous iteration of the Project had been referred under the EPBC Act and was found not to be a controlled action. DoEE further acknowledged the assessment undertaken by Ecoplan Pty Ltd which determined that the Project would not have a significant impact on koala habitat and would not require a referral under the EPBC Act. It was considered that this conclusion was reasonable, particularly in light of the previous determination that found the Project was not a controlled action.

3.3 ENVIRONMENTAL POLICIES, PLANS AND GUIDELINES

3.3.1 Introduction

A range of Commonwealth, State and regional planning instruments apply to the Project. These planning instruments were reviewed to identify any environmental aspects requiring consideration in the *Environmental Impact Statement*. In addition, the Secretary's Environmental Assessment Requirements (SEARs), issued by the Department of Planning and Environment (DPE), identified a number of guideline documents to be referenced/reviewed during the preparation of the EIS. A brief summary of each relevant piece of legislation and planning instrument is provided in the following subsections. The application and relevance of these planning instruments related to specific environmental issues have been addressed in the relevant specialist consultant assessments.

3.3.2 Commonwealth Legislation

Native Title Act

The *Native Title Act 1993* (NT Act) provides for the recognition and protection of native title rights and interests of Aboriginal and Torres Strait Islander peoples to land and waters according to their traditional laws and customs. It also establishes a mechanism to determine claims to native title. Native title rights and interests can only exist if they have not been extinguished by a prior valid grant of a right (such as the grant of freehold title) as such a right is inconsistent with the continuation of native title rights and interests.

A native title determination application (or native title claim) may be made pursuant to the NT Act. Upon lodgement of a native title claim, the National Native Title Tribunal (NNTT) is required to apply a registration test and either accept the native title claim for registration or reject it. The NNTT maintains a register of native title claims.

Proposed activities that may affect native title are called 'future acts'. A future act will only be valid to the extent that it affects native title if the procedural requirements set out in the NT Act are followed. If a native title claim is accepted for registration, the native title claimant is entitled to negotiate about future acts over the land that is subject to the native title claim.

No native title claims have been registered over the Site and, as such, the NT Act will not be considered further in this document.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a framework to protect and manage ‘matters of national environmental significance’, Matters of national environmental significance include:

- world heritage properties;
- National heritage places
- wetlands of international importance (RAMSAR);
- nationally threatened species and ecological communities;
- listed migratory species protected under international agreements;
- nuclear actions (including uranium mining);
- the Great Barrier Reef Marine Park;
- the Commonwealth marine areas; and
- a water resource, in relation to coal seam gas development and large coal mining development (“water trigger”).

Under the EPBC Act, if a project has the potential to have a significant impact on a matter of national environmental significance, it is required to be referred to the Commonwealth Department of Environment for assessment as to whether it represents a ‘controlled action’ and therefore requires approval from the Minister for the Environment. An ecological survey of the Site, conducted by Ecoplanning Pty Ltd, concluded that the Project’s level of impact(s) on species and communities listed under the EPBC Act would be such that it is not necessary to refer the Project to the Commonwealth Department of Environment.

3.3.3 NSW Legislative Context

Key Legislation

The key NSW legislation relating to the approvals, leases and licences required for the Project and their implications are as follows.

Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) provides the framework for the assessment and approval of development in NSW and is administered by the DPE.

The EP&A Act aims to protect and conserve the environment through ecologically sustainable development. This is achieved through managing development to conserve resources, including agricultural land, natural areas, forests, minerals, water, and towns with the purpose of promoting social and economic welfare of the community and an enhanced environment.

Development consent is required under the EP&A Act for extractive industries in NSW. The Project has been submitted for approval under Part 4, Division 4.7 of the EP&A Act as a State Significant Development (SSD).

The EP&A Act sets out the process for assessment of SSD applications. An EIS is required for all SSD development applications and must address all Secretary's Environmental Assessment Requirements (SEARs). The consent authority for the Project will be the Minister for Planning and Environment or the Independent Planning Commission under delegation from the Minister.

Section 4.41 of the EP&A Act identifies that if development consent is granted for a SSD, the following potentially relevant authorisations are not required.

- A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*;
- An approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977*;
- An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974*;
- A bush fire safety authority under section 100B of the *Rural Fires Act 1997*;
- A water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management Act 2000*.

Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) provides the environmental protection framework for regulation and reduction of pollution and waste in NSW as well as for monitoring of environmental quality. The POEO Act is administered by the Environment Protection Authority (EPA), which issues environment protection licences (EPLs) for wide-ranging scheduled activities, including extractive activities.

The POEO Act also requires immediate reporting of pollution incidents, which cause or threaten to cause material harm to the environment. All holders of EPLs are required to prepare, implement and regularly test pollution incident response management plans.

The Project would require an EPL under Chapter 3 of the POEO Act to carry out 'land-based extractive activities'. The EPL would apply to the entire Site.

Water Management Act 2000

The *Water Management Act 2000* (WM Act) is administered by the Division of Water within the Department of Industry. The WM Act provides clear arrangements for controlling land-based activities that affect the quality and quantity of the State's water resources. It provides for four types of approval, namely:

- water use approval (section 89) – which authorises the use of water at a specified location for a particular purpose, for up to 10 years;
- water management work approval (section 90) – which authorises the construction and use of specified water supply, drainage and flood works;
- controlled activity approval (section 91(2)) – which authorises works carried out within 40m of waterfront land; and
- aquifer interference activity approval (section 91(3)) – which authorises interference of an aquifer.

Section 4.41 of the EP&A Act specifies that a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the WM Act are not required for SSD and, as such, these approvals would not be sought in relation to this Project.

For controlled activities and aquifer interference activities, the WM Act requires that the activities avoid or minimise their impact on the water resource and land degradation, and where possible the land must be rehabilitated.

The WM Act requires that all extraction of surface water or groundwater must be properly accounted for under the rules of any relevant water sharing plans. The water resources of the Site are managed under the following plans:

- Groundwater: *“New England Foldbelt Coast Water Source of the North Coast Fractured and Porous Rock Groundwater Sources”*
- Surface water: *“Karuah River Water Source of the Lower North Coast Unregulated and Alluvial Water Sources”*.

The WM Act also contains provisions for basic landholder rights which entitle the owner or occupier of a landholding to take water without the need for a water access licence or approval under the harvestable rights provisions of the WM Act. Harvestable rights may only occur in nominated areas and the capacity of the water supply work (or works) is within a designated harvestable rights volume. Where the capacity of a water supply work (or works) exceeds the harvestable right, a water access licence to that meets the excess volume must be obtained. The Site is located within a harvestable rights order area and water collected under harvestable rights will be used for the Project.

Roads Act 1993

The *Roads Act 1993* (Roads Act) applies to public roads in NSW and, depending upon the type of road, is administered by the Roads & Maritime Service or local council.

Consent is required under section 138 of the Roads Act for works or structures that disturb the surface of a public road or connect a road to a classified road. However, section 4.42(f) of the EP&A Act applies to SSD projects and requires that consent must not be refused, if the works are necessary for carrying out an approved project.

A permit under section 138 of the Roads Act would be required to undertake the proposed construction of the Quarry entrance. MidCoast Council would be the issuing authority for the required permit.

Biodiversity Conservation Act 2016

The purpose of the *Biodiversity Conservation Act 2016* (BC Act) is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

Biodiversity impacts related to the Project are to be assessed in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR) as specified in the SEARs. Any impacts on biodiversity would be offset in accordance with the BC Act.

National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NP&W Act) aims to manage and conserve nature, objects, places and features that have ecological and cultural value. The NP&W Act is administered and enforced by the Office of Environment and Heritage (OEH).

Aboriginal places and objects are protected under the NP&W Act. The Director-General has a database of information and records regarding Aboriginal objects, the existence and location of which have been reported, known as the Aboriginal Heritage Information Management System (AHIMS).

An Aboriginal Heritage Impact Permit (AHIP) is generally required for consent to destroy, deface or damage Aboriginal object or Aboriginal place. Pursuant to section 89J(1) of the EP&A Act, an AHIP under the NP&W Act would not be required for the carrying out of the Project, if approved.

Explosives Act 2003

The *Explosives Act 2003* (Explosives Act) requires a person to hold a licence to handle, transport, store or use explosives and explosive precursors.

A Dangerous Goods Licence would be required for the storage of explosives under the Explosives Act and the bulk storage of Class 3 Combustible Liquid (diesel).

Biosecurity Act 2015

The primary objective of the *Biosecurity Act 2015* (Biosecurity Act) is to provide a framework for the prevention, elimination and minimisation of biosecurity risks posed by biosecurity matter, dealing with biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter, carriers or potential carriers.

Local Council Authorities are responsible for enforcing weed legislation and, as such, the MidCoast Council would be the regulating authority of the Biosecurity Act in relation to weed management.

Rural Fires Act 1997

The aims of the *Rural Fires Act 1997* (Rural Fires Act), administered by the NSW Rural Fire Service, are to prevent, mitigate and suppress bush and other fires in rural fire districts, to coordinate fire-fighting to protect persons from injury and death, and to limit property damage arising from fires.

Pursuant to section 4.41 of the EP&A Act, separate approval is not required under Section 100B of the Rural Fires Act, however, the SEARs require that the EIS detail potential hazards, including bush fire.

3.3.4 NSW State Planning Context

The following State Environmental Planning Policies (SEPPs) have been identified as they could potentially apply to the Project.

- SEPP (State and Regional Development) 2011
- SEPP (Mining, Petroleum Production and Extractive Industries) 2007
- SEPP 33 – Hazardous and Offensive Development

- SEPP 44 – Koala Habitat Protection
- SEPP 55 – Remediation of Land
- SEPP (Infrastructure) 2007

State Environmental Planning Policy (State and Regional Development) 2011

This SEPP was gazetted on 1 October 2011 and applies to all projects satisfying nominated criteria made following that date. The purpose of this SEPP is to define those projects of State Significance or proposed on State Significant Sites and therefore require Ministerial approval under the provisions of the EP&A Act 1979.

The Project would extract from a total resource of more than 5 million tonnes and exceed the minimum threshold of 500 000 tonnes of extracted materials per year which therefore qualifies the Project as SSD as nominated in Clause 7(1)(a & b) within Schedule 1 of the SEPP.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

This SEPP was gazetted on 17 February 2007 in recognition of the importance to New South Wales of mining, petroleum production and extractive industries.

The SEPP specifies matters requiring consideration in the assessment of any mining, petroleum production and extractive industry development. A summary of the matters that the consent authority needs to consider when assessing a new or modified proposal is as follows.

- Clause 12: Compatibility with other land uses.
- Clause 13: Compatibility with mining, petroleum, production or extractive industry.
- Clause 14: Natural resource and environmental management.
- Clause 15: Resource recovery.
- Clause 16: Transportation.
- Clause 17: Rehabilitation.

An assessment of how each of these clauses is addressed with respect to the Project is provided within the *Environmental Impact Statement*.

A summary of the matters that the consent authority needs to consider when assessing a new or modified proposal and where these have been addressed in this document is provided in **Table 3.1**.

Table 3.1
Application of SEPP (Mining, Petroleum Production and Extractive Industries) 2007

Page 1 of 2

Relevant SEPP Clause	Description	EIS Section
12: Compatibility with other land uses	Consideration is given to:	4.5
	<ul style="list-style-type: none"> the existing uses and approved uses of land in the vicinity of the development; 	Various Subsections of Section 5
	<ul style="list-style-type: none"> the potential impact on the preferred land uses (as considered by the consent authority) in the vicinity of the development; and any ways in which the development may be incompatible with any of those existing, approved or preferred land uses. 	

Table 3.1 (Cont'd)
Application of SEPP (Mining, Petroleum Production and Extractive Industries) 2007

Page 2 of 2

Relevant SEPP Clause	Description	EIS Section
12: Compatibility with other land uses (Cont'd)	The respective public benefits of the development and the existing, approved or preferred land uses are evaluated and compared.	5.12.3 and 5.12.4
	Measures proposed to avoid or minimise any incompatibility are considered.	Sections 5 and 6
12AB: Non-discretionary development standards for mining	Consideration is given to development standards that, if complied with, prevents the consent authority from requiring more onerous standards for those matters	5.1, 5.2 and 5.7
13: Compatibility with mining, petroleum production or extractive industry	Consideration is given to whether the development is likely to have a significant impact on current or future mining, petroleum production or extractive industry and ways in which the development may be incompatible.	4.5.2
	The public benefits of the development and any existing or approved mining, petroleum production or extractive industry must be evaluated and compared.	5.12.2, 5.12.3 and 5.12.4
	Measures taken by the Applicant to avoid or minimise any incompatibility are considered.	N/A
14: Natural resource and environmental management	Consideration is given to ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure:	
	<ul style="list-style-type: none"> impacts on significant water resources, including surface and groundwater resources, are avoided or minimised; 	5.6 and 5.7
	<ul style="list-style-type: none"> impacts on threatened species and biodiversity are avoided or minimised to the greatest extent practicable. 	5.5
15: Resource recovery	<ul style="list-style-type: none"> greenhouse gas emissions are minimised to the greatest extent practicable. 	5.1.9
	The efficiency of resource recovery, including the reuse or recycling of material and minimisation of the creation of waste, is considered.	2.5 and 2.10
16: Transportation	The following transport-related issues are considered.	2.7
	<ul style="list-style-type: none"> The transport of some or all of the materials from the Site by means other than public road. 	
	<ul style="list-style-type: none"> Limitation of the number of truck movements that occur on roads within residential areas or roads near to schools. 	2.7.4 and 5.4.3
17: Rehabilitation	<ul style="list-style-type: none"> The preparation of a code of conduct for the transportation of materials on public roads. 	5.4.4.2
	The rehabilitation of the land affected by the development is considered including:	
	<ul style="list-style-type: none"> the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated; 	2.12.4
	<ul style="list-style-type: none"> the appropriate management of development generated waste; 	2.10
	<ul style="list-style-type: none"> remediation of any soil contaminated by the development; and 	2.12.4
	<ul style="list-style-type: none"> the steps to be taken to ensure that the state of the land does not jeopardize public safety, while being rehabilitated or at the completion of rehabilitation. 	2.12.4

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

Hazardous and offensive industries, and potentially hazardous and offensive industries, relate to industries that, without the implementation of appropriate impact minimisation measures, would, or potentially would, pose a significant risk in relation to the locality, to human health, life or property, or to the biophysical environment. A risk screening of the Project has been undertaken in accordance with the document entitled *Hazardous and Offensive Development Application Guidelines: Applying SEPP 33* (DoP, 2011). In summary, as the only hazardous substances to be stored on the Site would be restricted to well managed diesel fuel and other hydrocarbon products, the Project would not be classified as a potentially hazardous industry. This SEPP does not apply to explosives to be used on Site as it is not intended to store explosives on Site. All explosives required for blasting would be transported to the Site on the day of each blast.

State Environmental Planning Policy No. 44 – Koala Habitat Protection

SEPP 44 aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for Koalas to ensure a permanent free-living population over their present range and reverse the current trend of Koala population decline.

The former Great Lakes Local Government Area (now incorporated into the MidCoast Council) remains identified in Schedule 1 of this policy as an area that could provide habitat for Koalas. The policy requires an investigation to be carried out to determine if any Koala feed trees are present within the Site. Schedule 2 of this policy also provides a list of tree species that are favoured feed tree species of Koalas.

A koala was recorded within the Site during surveys undertaken by Ecoplaning and, as such, a species polygon was determined for this species which includes all areas of native vegetation within the proposed area of disturbance (Ecoplaning, 2019).

State Environmental Planning Policy No. 55 – Remediation of Land

SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. In particular, this policy requires consideration of whether a development requires a consent for remediation works or not and, where warranted, requires that remediation works meet certain standards and notification requirements.

As the areas proposed for disturbance within the Site have previously been used for small scale logging, passive nature conservation and, more recently, exploration activities, it is highly unlikely any contamination is present that requires remediation work prior to undertaking the proposed extraction operation. Hence, based upon preliminary investigations, SEPP 55 is not likely to be relevant to the consideration of the Project.

State Environmental Planning Policy (Infrastructure) 2007

The proposed Project qualifies as a traffic generating development with relevant size or capacity under Schedule 3 of the SEPP (Infrastructure) 2007. In accordance with Clause 104, before determining the development application, the consent authority must refer the Project to the RMS.

In accordance with Clause 104 (3b), in determining the development application the consent authority must take into consideration:

- ii) the accessibility of the site concerned, including:
 - a) *the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and*
 - b) *the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and*
- iii) *any potential traffic safety, road congestion or parking implications of the development.*

3.3.5 Regional Planning Issues

Hunter Regional Plan 2036

The Hunter Regional Plan 2036 (HRP) was released by the NSW Government in October 2016 with the aim of providing an overarching framework that would guide more detailed land use plans, development proposals and infrastructure funding decisions within the Hunter region.

The HRP establishes strategic goals for the Hunter region, which are as follows.

- Establishing the Hunter as the leading regional economy in Australia
- Ensuring a biodiversity-rich natural environment
- Developing thriving communities
- Promoting greater housing choice and jobs

The Project would assist the region in achieving its goals in relation to economic and employment opportunities, especially given the significant investment it would bring to the region. The HRP recognises that, whilst the Hunter's economy is undergoing rapid diversification, industry will continue to underpin the economy of the region. The HRP also identifies actions to limit land use conflicts within the region and ensure that the social, economic and environmental implications of extractive industries are properly managed. The Project would not impinge on land use objectives as extensive quarrying already occurs in the immediate vicinity of the Site and no conflicting land uses are foreseen. The Project would also assist in building strong, healthy and well-connected communities through the provision of employment and the economic boost to local businesses and contractors.

The HRP also describes the importance of preserving areas of high biodiversity within the Hunter region. Biodiversity offsets are identified as a key mechanism to protect and enhance habitat connections throughout the region. Whilst the Project would require the clearing of approximately 11.59ha of native vegetation these impacts would be offset by payment into the Biodiversity Conservation Fund (see Section 2.13). These biodiversity offsets would ensure that high value native vegetation and fauna habitat would be preserved in perpetuity. It is, therefore, unlikely that the Project would limit the achievement of the goals and strategies described in the HRP.

3.3.6 Local Planning Issues

Great Lakes Local Environmental Plan 2014

Within the Great Lakes Local Environmental Plan (LEP) 2014 the Site is located within land zoned as RU2 – Rural Landscape (see **Figure 3.1**). Extractive industries are permissible with consent within this zone. The planning objectives of this zone are:

- *to encourage sustainable primary industry production by maintaining and enhancing the natural resource base;*
- *to maintain the rural landscape character of the land;*
- *to provide for a range of compatible land uses, including extensive agriculture;*
- *to provide for rural tourism in association with the primary industry capability of the land which is based on the rural attributes of the land;*
- *to secure a future for agriculture in the area by minimising the fragmentation of rural land and loss of potential agricultural productivity.*

In addition, the Project is located upstream from the Karuah Nature Reserve which is identified in the LEP as Zone E1 – National Parks and Nature Reserves (see **Figure 3.1**). The objectives of this zone are:

- *to enable the management and appropriate use of land that is reserved under the National Parks and Wildlife Act 1974 or that is acquired under Part 11 of that Act;*
- *to enable uses authorised under the National Parks and Wildlife Act 1974; and*
- *to identify land that is to be reserved under the National Parks and Wildlife Act 1974 and to protect the environmental significance of that land.*

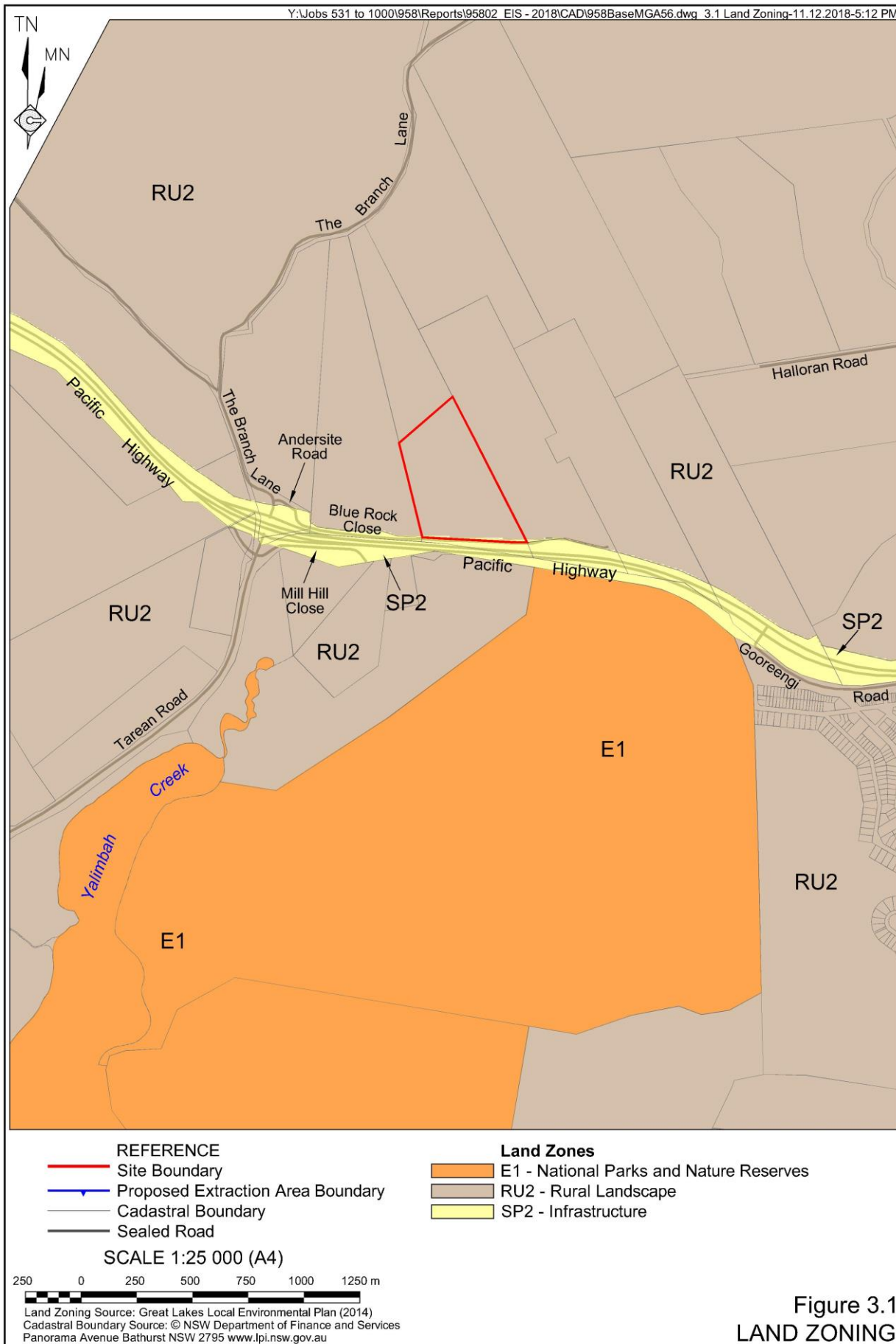
The development of the Project would not infringe on these objectives and any potential downstream impacts have been comprehensively considered in the assessment of surface water (Section 5.6) and groundwater (Section 5.7).

Development Control Plan

The Great Lakes Development Control Plan (DCP) applies to all land to which the Great Lakes LEP (2014) applies and provides development controls for specific types of development.

Whilst specific controls have not been identified for the extractive industry, a number of environmental objectives within the DCP are relevant to the Project. The primary environmental consideration, as stipulated in Section 4 of the DCP, is as follows.

- *To ensure that development is designed in a manner that avoids, mitigates or offsets negative impacts on biodiversity and the quality and function of the natural environment and responds to relevant ecological constraints and opportunities.*



Section 12 of the DCP also stipulates objectives relating to tree and vegetation preservation. These objectives were considered during the design of the Project and are listed below.

- *To recognise the positive contribution of trees and other vegetation to our community by providing effective protection and management mechanisms.*
- *To retain trees and vegetation of ecological, heritage, aesthetic and cultural significance.*
- *To ensure that proper consideration is given to trees and native vegetation in designing, planning and constructing development.*
- *To enable the removal of undesirable exotics, noxious weeds and any other inappropriate plantings that poses an unacceptable threat to life or property.*
- *To balance the removal of trees and other vegetation with the planting of suitable local native species that positively contributes to visual amenity, environmental function and ecological sustainability.*
- *To regulate the unauthorised injury, removal or destruction of trees and other vegetation covered by this section of the DCP.*

The Project would not limit the achievement of these objectives. A description of the potential environmental impacts of the Project, the design and operational controls that would be implemented to mitigate any potential impacts of the Project is presented in **Section 5**. The Project would be managed in accordance with these mitigation measures and a range of comprehensive management plans and strategies that would be required under the conditions of any consent. The management would also include a series of ongoing monitoring, reporting and compliance management measures that would be made publicly available.

3.4 ENVIRONMENTAL ISSUE PRIORITISATION

The prioritisation of the key environmental issues, and hence their general order of presentation in this document, has been established through reference to the following.

- The results of the issue identification process recorded in Section 3.2 and Section 3.3.
- The benefit of sequentially presenting issues with inter-related subjects.
- The experience of the document's author in assembling *Environmental Impact Statements*.

The key environmental issues are presented in Section 5 in the following order.

- | | |
|--------------------------|---------------------------------|
| 1. Air Quality | 6. Surface Water |
| 2. Noise and Vibration | 7. Groundwater |
| 3. Visibility | 8. Aboriginal Cultural Heritage |
| 4. Traffic and Transport | 9. Economic |
| 5. Terrestrial Ecology | 10. Social |

It is noted that the positioning of the social assessment within the above order is not a direct consequence of the prioritisation assessment. Rather, from the assessment of the risk sources, potential consequences and nature of the existing environment, it was apparent that the majority of other environmental issues identified included actual or perceived social risks and, as such, it was appropriate that social issues be addressed following the discussion of the various contributing environmental issues.