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Introduction

1.1 Introduction

The Orogen team is focussed on delivering environmental planning, assessment and management outcomes across a range of industry sectors. Orogen has the core skills and experience to deliver customised solutions to clients for development and environmental approvals for projects in the following industry sectors:

- Land Subdivision;
- Residential/Industrial/Commercial Building;
- Transport Infrastructure;
- Energy Utilities Infrastructure;
- Water and Sewer Supply Infrastructure;
- Mining; and
- Extractive Industries.

We undertake projects for both private and public sector clients with a commitment to delivering our services on time and within budget.

Orogen is a vision led, purpose-orientated, values-based organisation. Our vision is being the most acclaimed environmental consultancy in Australia. Orogen's purpose is to deliver innovative solutions for the built and natural environment.

We believe that companies have to live their values. Increasing transparency means that communities know which providers are responsible socially and environmentally and they choose their providers on this basis.

Our values of Client Focus, Talk Straight, Mutual Benefit; Empower and Trust and Team; drive all aspects of our organisation. Underpinning our purpose is a solid business platform designed to deliver excellence across technical capabilities, systems and stakeholder relationships.

The Transport Infrastructure Industry is a key market for Orogen. This document outlines our capabilities for providing valuable services to projects in the industry.

Environmental Planning

2.1 Understanding of Relevant Planning Instruments

Orogen's environmental planning staff have detailed working knowledge of Local, State and Commonwealth planning legislation, regulations and policies as related to a wide range of infrastructure development projects.

In NSW, the *Environmental Planning and Assessment Act 1979 (EP&A Act)* forms the statutory planning basis for all planning and environmental assessments of projects. In addition, the *Environmental Planning and Assessment Regulation 2000* provides the detail of the controls articulated in the legislation. From this Act, the various State Environmental Planning Policies (SEPPs), Regional Environmental Plans (REPs) and Local Environmental Plans (LEPs) are derived, which convey land use controls that are the basis for land use planning in NSW.

Other relevant legislation that may regularly affect projects, in the context of environmental and planning assessment, includes the *Threatened Species Conservation Act 1995*, *Fisheries Management Act 1994*, *Water Management Act 2000*, *Rivers and Foreshores Improvement Act 1948*, as well as their associated regulations and SEPP's that may be relevant, depending on the nature of the project.

In Queensland, the *Integrated Planning Act 1997 (IPA Act)* forms the basis for development planning and environmental planning works. The *IPA Act* ties Local and State Government planning mechanisms together through the Integrated Development Assessment System (IDAS), aiming to provide assessment unity between State and Local regulatory agencies. The Planning Schemes of Local Government control development activities on a local scale, while state planning instruments such as the *South East Queensland Regional Plan (OUM, 2005)*, the *Regional Coastal Management Plans of the Environmental Protection Agency (EPA)*, the *Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (EPA, 2006)* and the Department of Natural Resources and Water's (NRW) Concurrence Agency Policies for Material Change of Use and Reconfiguring a Lot are examples of important instruments in guiding regional and state development from an environmental assessment and management perspective.

Legislation relevant to the environmental planning of Queensland projects includes the *Environmental Protection Act 1994*, *Vegetation Management Act 1999*, *Fisheries Act 1994* and the *Nature Conservation Act 1992*. A number of State Planning Policies (SPP's) may also be relevant to a given project.

At the Commonwealth level, the main planning instrument affecting environmental planning is the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. The *EPBC Act* requires that assessment must be performed to determine if approval is required for:

- Actions that have a significant impact on matters of National Environmental Significance (NES);
- Actions that have a significant impact on the environment of Commonwealth land; and
- Actions carried out by the Commonwealth Government.

The *EPBC Act* identifies seven matters of National Environmental Significance:

- World Heritage properties;
- National Heritage Places;
- Ramsar wetlands of international significance;
- Listed threatened species and ecological communities;
- Listed migratory species;
- Commonwealth marine areas; and
- Nuclear actions (including uranium mining).

In addition, this legislation covers all matters that come under Commonwealth jurisdiction, by way of obligations to international treaties, Commonwealth policy and matters that have the potential to impact across State boundaries.

2.2 Biodiversity Banking and Offsets

Biodiversity Banking legislation is currently being implemented in NSW. Biodiversity Banking is an effective tool that enables development impacts to be offset purchase by biodiversity credits.

Orogen has a detailed understanding of the current legislation in NSW and is currently working with land developers and infrastructure providers in NSW to develop strategies for the implementation and recommendation of their lands under a Biodiversity Banking scheme.

In NSW we operate as a qualified biobanking broker.

In Qld Orogen is at the forefront of Environmental Offsets policy development and changes to existing specific-issue offsets policies including vegetation management offsets and has negotiated a number of offsetting arrangements to the satisfaction of clients and authorities.

Orogen can provide detailed advice and reporting to satisfy the requirements of the legislation and work closely with clients to identify opportunities for developers and infrastructure providers to maximise the benefits of this legislation in the context of their strategic business objectives. Our services include:

- Advice on legislative controls and compliance requirements;
- Identification of offset opportunities including land provision, habitat improvement and species improvement initiatives;
- Determination of habitat value and impact;
- Liaison with regulatory authorities to reach agreement on offsetting for development impact;
- Biobanking broking; and
- Management of vegetation and property improvement as part of agreed offsetting arrangements.

2.3 Relevant Projects

2.3.1 Tallwoods Village Planning

Tallwoods Village is a 1000 lot residential subdivision in Hallidays Point on the NSW Mid North Coast. Built on extremely steep terrain, the location not only provides an interesting outlook but also challenges for engineering design and construction of an extensive road network. Orogen Pty Ltd has been engaged by Tallwoods Pty Ltd to manage the planning and environmental aspects of the project, including the management of traffic impact assessment and road design. Orogen has worked in a team of consultants that has delivered residential subdivisions in Tallwoods Village that are recognised as being of the highest development quality.

2.3.2 Nabic Planning Reports

Orogen prepared planning reports for three separate properties at Nabic to assist the NSW Roads and Traffic Authority to determine the impact of the upgrading of the Pacific Highway in the village of Nabic.

Each report addressed the following issues:

- The current zoning and land use definition.
- Permissible development on the land.
- Opportunities or constraints to future development.
- Opportunities or constraints to expansion of existing development provided by the Environmental Planning and Assessment Act and Regulation.
- Existing and future Pacific Highway Access rights.

Environmental Assessment

3.1 Reviews of Environmental Factors, Development Applications

Orogen has extensive experience in the preparation of environmental assessments for infrastructure projects in the form of Review of Environmental Factors (REF). In addition we have particular expertise in preparing Statement of Environmental Effects (SEE's) for Development Applications.

All REF's and SEE's are prepared in accordance with relevant legislation and regulations and include all relevant aspects of Government Authorities, landholder, community and other stakeholder consultation.

The majority of the REF's and SEE's prepared have involved detailed community consultation, including both the general community and affected landholders, where the acquisition of land for easements has been required. This consultation has involved detailed negotiation surrounding easement location, size and land valuation/compensation process. Government Agency consultation is always undertaken for all projects to ensure that all issues are dealt with at the assessment phase of the project, to ensure that no 'show stopper' issues are raised at a late stage of the assessment process.

Orogen has extensive experience in consultation with all types of stakeholders on these projects. Carefully planned and managed consultation is essential to the success of any infrastructure project. Critical pathway analyses of projects indicates that on many occasions, effective and comprehensive consultation is the critical issue that can 'make or break' a project, in particular, where land acquisition for easements is required.

3.2 Ecological Assessment

Orogen has extensive expertise in the provision of ecological assessment and management services to a variety of clients in both the private and public sectors of Queensland and New South Wales. Orogen's team of ecological professionals work closely with other technical disciplines, to ensure that an integrated approach is taken to all projects.

The focus of our ecological services is to provide innovative solutions to achieve the highest level of outcomes for our client, the environment and wider community.

Our ecological assessment services include:

- Comprehensive terrestrial and aquatic flora and fauna surveys and monitoring;
- Targeted Threatened species surveys;
- Macro-invertebrate sampling and monitoring;
- Vegetation community and fauna mapping;
- Section 5A assessments (7 Part Tests) in accordance with the NSW *Environmental Planning and Assessment Act 1979*;
- Flora and fauna Species Impact Statements;
- SEPP 44 *Koala Habitat Protection* (NSW) and *SEQ Regional Plan Interim Guideline* (QLD) koala assessments and koala management plans;
- Pre-clearing surveys, vegetation clearing management plans and clearing supervision for works approved under the *Native Vegetation Act 2003* (NSW) and *Vegetation Management Act 1999* (QLD);
- Ground-truthing and correction of Remnant Regional Ecosystem mapping (QLD);
- Impact amelioration, site rehabilitation, habitat enhancement and revegetation programs;

The majority of flora and fauna assessments and associated works undertaken are within the context of a larger reporting framework, for example Environmental Impact Statements or Review of Environmental Factors.

3.3 Environmental Impact Statements

Orogen has demonstrated an extensive experience in undertaking Environmental Impact Statements for a range of infrastructure, industrial, residential and natural resource management projects. In addition to drawing on comprehensive in-house expertise across a range of scientific disciplines, the company also has established working partnerships with a number of high-level professionals in specialist fields of assessment.

These capabilities and partnerships enable assessments to be completed to a standard that facilitates informed decision making by consent authorities and also withstands scrutiny from external stakeholders.

3.4 Relevant Projects

3.4.1 Woodburn to Ballina Pacific Highway Upgrading

Orogen was part of the project team for the route options assessment and preferred route determination for the Pacific Highway upgrade between Woodburn and Ballina on the North coast of NSW. Orogen undertook the ecological investigations for the project.

The ecological assessment for the Woodburn to Ballina (W2B) Pacific Highway Upgrade comprised Three Phase investigation. Tasks undertaken by Orogen included:

- background research and desktop review, including review of Threatened species records held on the DECC's Atlas of NSW Wildlife;
- identification of opportunities and constraints regarding ecological issues;
- development of constraints ranking and mapping;
- preliminary review of proposed route options;
- community and stakeholder liaison, attendance of community meetings;
- provision of specialist ecological advice (terrestrial flora and fauna issues) regarding augmentation of proposed route options and determination of preferred route option;
- engaging and management of specialist sub-consultants;
- detailed seasonal field surveys (ie summer, winter and spring);
- reporting the results of the field surveys, including producing maps (with preferred route overlay) demonstrating survey site locations and locations of Threatened species detected during the surveys.

The field surveys undertaken by Orogen targeted the Threatened species listed under the *Threatened Species Conservation Act (1995)* and/or the *Environmental Protection and Biodiversity Act (1999)* that were considered to potentially occur within the study area and adjoining habitats. The survey techniques were based on the NSW Department of Environment and Conservation

Threatened Biodiversity Survey and Assessment: Guidelines for developments and activities (working draft) (DEC, 2004).

The objective of the surveys was to target Threatened species in appropriate or marginal habitats (where available) for particular species. Survey sites were therefore selected with consideration of the habitat of the Threatened species targeted and the occurrence of potential habitat at each of the selected sites.

3.4.2 Proposed Pavement rehabilitation, Fossickers Way, Barraba

Orogen prepared the ecological assessment for a proposed pavement rehabilitation and widening 8.86 km to 10.73 km north of Barraba, Fossickers Way, Barraba Shire Council. Our report was a component of the Review of Environmental Factors (REF) in accordance with Section 111 (Part V) of the Environmental Planning and Assessment Act (1979).

The ecological assessment included:

- Provision of a list of terrestrial threatened flora and those that may potentially occur in the area, with reference to their likelihood of occurrence in the area and the reasons why this conclusion was reached;
- An assessment of the cumulative impacts on the flora and fauna of the locality posed by the development;
- Identification and descriptions of the conservation significance of vegetation communities and flora species, at a local, regional and State level by citing relevant references, considering also their level of representation in lands managed for conservation purposes;
- The preparation of a Section 5A Assessment (8 part test) and an assessment in accordance with the Commonwealth EPBC Act 1999 for the species potentially occurring in relation to the proposed development; and
- Determination of mitigation measures that could be incorporated into the proposed development to reduce its impact on these species, in accordance with RTA's policy of "avoid, minimise, mitigate".

Environmental Management

4.1 Environmental Management Plans

Environmental Management Plans (EMP's) are prepared in accordance with relevant Local, State and Commonwealth legislation. These plans can include documented and computer-based protocols for managing maintenance and operational requirements, as well as links to statutory reporting requirements.

Orogen has extensive experience in preparing specialised EMP's for infrastructure projects.

4.2 Ecological Management Plans

In many instances, mitigation strategies are built into a proposed development in order to minimise the impact of the development. Formal documentation of the mitigation strategies in an Ecological Management Plan is an important part of the process, as it formalises the works, procedures and responsibilities required to undertake the mitigation. The Plans also often form part of the Conditions of Consent of the project.

Orogen has prepared numerous Ecological Management Plans for a wide variety of project. The plans vary in their content and intent depending upon project scope. Some examples of these plans include:

- Flora and Fauna Management Plans;
- Environmental awareness and induction training programs; and
- Feral animal management and monitoring plans/programs.

Company Details

5.1 Management Philosophy

Underpinning our organisational purpose is a solid business platform designed to deliver excellence across technical capabilities, systems and stakeholder relationships. The key elements of the business platform are summarised below.

Customer Focus

Orogen is committed to building partnerships with our clients that help them achieve success by delivering outcomes that meet their business needs now and in the future. We do this by seeking to understand our clients' needs and working together with them to develop solutions that will help them to achieve their goals.

Technical Support

Orogen has implemented technology-enabled project management and business management systems that enable staff to work remotely while being able to call on the support of Orogen organisational resources.

Employer of Choice

Orogen is committed to building motivated and empowered teams who work with our clients to deliver exceptional project outcomes. To attract and retain people who are committed to our purpose and values, we focus on creating a work environment that offers achievement, responsibility and personal growth.

Orogen has comprehensive OH&S policy and procedures in place for all our works. A copy of our OH&S Policy Statement and Table of Contents from our OH&S Manual can be provided upon request.

5.2 Total Quality Management

Orogen has in place a continuous improvement program to ensure that our services are relevant, practical, up to date and sustainable.

Orogen Pty Ltd currently holds third party certification to the level of AS/NZS ISO 9001:2000, provision of environmental consultancy services.

We have fully implemented generic business processes that are used across the entire organisation, such as document and records control and have reorganised our internal business units and management structures to reflect the process driven approach of the new standard.

The Orogen Quality System is a digital system. All documentation is available to staff within our corporate intranet and all Quality Systems records are maintained in an interactive, rather than static, digital format.

5.3 Company Insurances

The following relevant insurance policies are currently held by Orogen:

- Public and Products Liability
- Workers Compensation Insurance
- Professional Indemnity Insurance

Copies of each of the abovementioned policies can be provided upon request.

Project Management

6.1 Client Focus

Orogen recognises the critical needs of our clients for the delivery of projects on time and within budget. Competent project management enables these objectives to be met.

Orogen has adopted a project management system that defines the way our people manage projects. Our project management principles are aligned with the National Competency Standards for Project Management as endorsed by the Australian Institute of Project Management.

In all projects, Orogen develops a close working relationship with the client and sets agreed aims and objectives early in the project. Early client involvement ensures that shared agreement is established around project objectives and critical success factors; risks are properly assessed, and responsibilities and resource requirements are agreed. For some projects sub-consultants will be assembled to provide specialist project input with the view of providing a better service to the client. Sub-consultants are required to meet the requirements of our Quality System.

Through our commitment to service and sustainability-based outcomes, we have created ongoing relationships with a number of Government and private organisations. These relationships demonstrate our commitment to client service and the outcomes in terms of approvals.

6.2 Cost and Time Management through the Project Plan

The following methodology is used on all Orogen projects, which ensures that our services are delivered to the client on cost and within time constraints.

At the commencement of each project a Project Plan is prepared. The Project Plan outlines the project objectives and expected outcomes and puts the methodology into a working program which details the tasks, resources, timeframe and budget required to complete the project.

Orogen is a team based organisation. On project commencement, the Project Director briefs the Orogen project team members so that they understand the project and their contribution towards the achievement of outcomes. The Project Director allocates the task to the various team members and is then directly responsible for monitoring the progress of the work.

The Project Director provides regular progress reports to our client so that any problems that may affect the project will be identified and resolved early. On project completion the Project Director will seek feedback from the client. Client feedback is then shared with the Project Team for the purpose of acknowledgement of project outcomes and continuous improvement.

Senior Personnel

7.1 Senior Personnel

Tony Fish is Senior Environmental Planner and Orogen's Business Manager. Tony has more than eighteen years experience in environmental consulting with extensive experience in liaising with government authorities, developers, councillors and various industry representatives.

Tony has been involved with the preparation of many significant Environmental Impact Statements and Species Impact Statements for major transport infrastructure projects. He has an understanding of the need to meet sound economic, environmental and social objectives and was directly involved in the feasibility and concept development of many projects. He has also undertaken social, community and land use impact assessment for a number of projects

Nelson Wills is a Project Director responsible for directing a variety of impact assessments, ecological and soils and water assessments. Nelson has both private and public sector experience in environmental assessment and project management.

Nelson's fields of expertise include environmental impact assessment, flora and fauna assessment/management, rehabilitation plans, contaminated land remediation, acid sulfate soils, environmental reporting and project management. Nelson has extensive experience in communicating with an array of stakeholders including government authorities, academics, developers and community groups.

Justin Meleo is a Project Director with over 12 years experience in directing the investigation and preparation of a variety of impact assessment reports and projects.

Justin relies on his expertise in physical, ecological and anthropogenic impacts to direct the investigations, data analyses and reporting for a wide range of EIA projects. He has particular environmental planning and technical expertise in the analyses of rural and urban impacts on range of environments, including coastal, riverine and estuarine environments, both natural and built.

He has been undertaking substantial assessments of line route and substation electricity infrastructure projects for the last three years.

Isaac Mamott is a Senior Botanist with over 12 years consulting experience in Environmental Consulting, concentrating in the field of Botany and general ecological assessments. Isaac has undertaken extensive vegetation survey and mapping biodiversity studies for NSW NPWS (DEC), DIPNR (formerly DLWC) and Department of Defence in coastal, tableland, slopes and plains regions of NSW and Qld as well as survey and impact assessment studies for a wide range of land development projects including mining, infrastructure (roads, ports, transmission line easements) and residential/commercial subdivisions.

Isaac also has expertise in managing site rehabilitation and restoration projects involving site design, seed collection and plant propagation, earthworks and monitoring for a range of dry sclerophyll, heath and wetland associations.