

Chapter 17

Management Framework

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17 Management Framework

17.1 OVERVIEW

Pacific Aluminium maintains its Gove mining and refinery operations with a commitment to minimising harm to the environment and developing long lasting, mutually beneficial partnerships with the community that contribute to sustainable development in the region. The focus is on people, planet and prosperity, supported by strong governance systems that ensure sustainable development is integral to business planning and decision making. Pacific Aluminium would ensure that the commitment, organisational culture and governance systems are applied to the KGGP Project.

Effective environmental management for the KGGP Project will be achieved through:

- Complying with conditions of approval under the NT *Energy Pipelines Act*, the EPBC Act and all other legislation relevant to the project.
- Implementing the commitments made in this Draft EIS.
- Maintaining an Environmental Management System (EMS).
- Implementing the Environmental Management Plan (EMP), which addresses the construction, operation and decommissioning phases of the project (as well as rehabilitation of disturbed areas) and includes a Terrestrial and Aquatic Fauna and Habitat Management Plan to address Matters of NES.
- Regularly reviewing the performance of the EMP and continually updating the EMP as required.
- Progressively rehabilitating disturbed areas and measuring rehabilitation success.
- Training staff and contractors in environmental aspects relevant to their work.
- Engaging with landholders to ensure their needs are met, issues are promptly and effectively responded to and, where possible, they are afforded an opportunity to participate in the delivery of environmental controls.

Integral to many of the strategies and approaches above are monitoring, auditing and reporting of performance, including compliance with conditions and verifying that observed environmental impacts are consistent with predicted outcomes.

Rio Tinto has operated the Gove refinery and mining operations since 2007. The operations are managed in accordance with a Mining Management Plan prepared and approved under the *Mining Management Act*. Pacific Aluminium conducts its operations within a culture of continuous improvement (consistent with the ISO 14001 EMS framework) and reports annually on key sustainability indicators. Where incidents occur, they are investigated and the causes rectified. For example, in June 2010, a spill of unleaded petrol occurred at the Gove Operations' Light Fuel Tank Farm. The incident was reported to NT regulatory authorities and remediation work continues to be undertaken by Pacific Aluminium in relation to this incident. A prosecution pursuant to the *Mining Management Act* also arose from this incident.

17.2 PACIFIC ALUMINIUM HEALTH, SAFETY AND ENVIRONMENT POLICY

Pacific Aluminium's Health, Safety and Environment Policy is:

"Pacific Aluminium is an integrated business that produces alumina and aluminium products.

We are committed to protecting our people and minimising environmental harm through inspired leadership and great people who are supported by a fit for purpose management system.

We set and review our HSE objectives and commit to comply with all applicable laws and other requirements.

We collectively focus on the HSE challenges that matter most and do those really well. We welcome fair scrutiny of what we do to help us improve.

We have clear, well defined standards and expectations. To work here you must meet these standards and expectations."

17.3 ENVIRONMENTAL MANAGEMENT SYSTEM

Pacific Aluminium conducts its operations within a culture of continuous improvement (consistent with the ISO 14001 EMS framework. ISO 14001 is an internationally recognised continuous improvement model, the key elements of which include assessing environmental risk and legal requirements, developing objectives and targets for improvement, training, operational control, communication, emergency response, corrective actions, audits and reviews.

The EMS is designed on the principles of continual improvement and adopts the methodology of 'Plan, Do, Check and Review (Act)'.

The EMS is subject to periodic review and may be updated from time to time. It is divided into the following 17 elements, each of which sets out to achieve a specific objective that enables the identification and management of environmental risks and opportunities:

- Element 1: Policy.
- Element 2: Legal and other requirements.
- Element 3: Hazard identification and risk management.
- Element 4: HSEQ management improvement planning.
- Element 5: Organisational resources, accountabilities and responsibilities.
- Element 6: Training, competency and awareness.
- Element 7: Supplier and contractor management.
- Element 8: Documentation and document control.
- Element 9: Communication and consultation.
- Element 10: Operational control.
- Element 11: Management of change.
- Element 12: Business resilience and recovery.
- Element 13: Measuring and monitoring.
- Element 14: Non-conformance, incident and action management.
- Element 15: Data and records management.
- Element 16: Performance assessment and auditing.
- Element 17: Management review.

The construction phase of the KGGP Project would be managed largely under Element 7 (Supplier and contractor management), the key features of which are:

- Suppliers of material, equipment, services and labour are evaluated to determine the environmental risks of activities and uses of materials and equipment.
- Contractors scope of work, environmental risk assessment and environmental management plans are defined and agreed prior to start of work.
- Contractors have an assigned contract manager to oversee their mobilisation to site and on-site work performance.
- Contractors are aware of environmental requirements, are trained for work, and have required work permits in place.
- Contractor's performance is measured and evaluated.
- Hazardous materials used on-site are approved for their intended use and documented in a register.
- Material safety data sheets (MSDS) are available for all materials used in the workplace.
- Work procedures include required controls for the safe transport, storage, use and disposal of hazardous materials and equipment.

The operational phase of the KGGP Project will be managed largely under Element 10 (Operational control), the key features of which are:

- Operational controls (including environmental management plans) are in place to manage environmental risks.
- Operational controls are in place to conform to the Pacific Aluminium performance requirements.
- Work procedures are developed detailing how the required environmental operational controls are implemented and maintained.
- Work procedures are readily available and used by personnel to conduct their daily work activities.
- Operational controls are inspected and maintained to ensure the expected level of protection is provided.
- Work procedures are kept up to date to ensure they accurately reflect current practices.

17.4 SUMMARY OF LIKELY ENVIRONMENTAL CONTROL INSTRUMENTS

Pacific Aluminium has identified the regulatory controls that would be applied to ensure appropriate management of the proposal. The key controls include (but are not limited to):

- Environmental conditions of consent to construct and consent to operate the KGGP granted by the NT Minister for Mines and Energy under the *Energy Pipelines Act* and addressing recommendations made by the NT EPA in their assessment report for the project, made pursuant to the EA Act.
- Environmental conditions in any Approval issued by the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities allowing the KGGP Project to be implemented under the EPBC Act.
- Conditions of consent to clear native vegetation issued (if consent is required: exemptions or limitations with respect to pipeline infrastructure are understood to exist).
- Conditions of a licence to extract water from surface or groundwater issued pursuant to the *Water Act* (if a licence is required: exemptions or limitations with respect to pipeline infrastructure are understood to exist).

- Conditions of a licence to discharge waste to water issued pursuant to the *Water Act*.
- Conditions of consent to disturb archaeological material issued pursuant to the *Heritage Act*.
- Restricted Work Areas established to protect Aboriginal sacred sites under the *Northern Territory Aboriginal Sacred Sites Act*.

17.5 RISK ASSESSMENT

Chapter 5 presents a risk assessment for the KGGP Project that identifies the potential impacts with a greater environmental risk, and consequently where environmental impact assessment and management should be focussed. The environmental aspects that generated pre-mitigation risk ratings as medium or above and their associated management sub-plan in the EMP are summarised in Table 17-1.

Table 17-1: Key risks and relevant management sub-plans

RISK	RELEVANT MANAGEMENT SUB-PLAN FOR THE EMP
Vegetation clearing	Vegetation and Flora Management Plan Terrestrial and Aquatic Fauna Management Plan Landform and Soils Management Plan Rehabilitation Management Plan Cultural Heritage Management Plan
Excavation (e.g. fauna falling into trenches (injury, mortality))	Terrestrial and Aquatic Fauna Management Plan Terrestrial and Aquatic Fauna and Habitat Management Plan Health and Safety Management Plan Cultural Heritage Management Plan
Physical presence of infrastructure	Terrestrial and Aquatic Fauna Management Plan Terrestrial and Aquatic Fauna and Habitat Management Plan Introduced Fauna Management Plan Weed Management Plan Rehabilitation Plan
Vehicle movements	Traffic Management Plan Noise and Vibration Management Plan Weed Management Plan
Fire ignition	Weed Management Plan Fire Management Plan Health and Safety Management Plan
Liquid waste disposal	Waste Management Plan Hydrology and Water Quality Plan
Spills and leaks	Waste Management Plan Hydrology and Water Quality Plan
Atmospheric emissions (including dust)	Air Quality Management Plan Greenhouse Gas Management Plan
Noise and vibration	Noise and Vibration Management Plan

17.6 ENVIRONMENTAL MANAGEMENT PLAN

To manage specific environmental aspects of the KGGP Project, a comprehensive EMP will be implemented (Appendix O). Implementation of the KGGP Project in accordance with the EMP will focus on and aim to ensure that the project meets all environmental obligations including legislation, regulations and conditions of approval.

The EMP comprises a series of management sub-plans describing measures to be applied to avoid and minimise the environmental impacts of the KGGP Project, monitoring to track and assess management performance against targets, and contingency measures to mitigate unavoidable or accidental impact. The management sub-plans included in the EMP relate to the design, construction and/or operations phases of the KGGP Project, as appropriate (Table 17-2). A separate Decommissioning Plan is contained in the EMP.

Table 17-2: Project phases addressed in the management sub-plans included in the EMP

MANAGEMENT SUB-PLAN INCLUDED IN THE EMP	DESIGN	CONSTRUCTION	OPERATIONS
Soil and landform	✓	✓	✓
Hydrology and water quality	✓	✓	✓
Vegetation	✓	✓	✓
Terrestrial and aquatic fauna and habitat	✓	✓	✓
Introduced fauna	✓	✓	✓
Air quality	✓	✓	✓
Health and safety		✓	✓
Cultural heritage	✓	✓	✓
Fire		✓	✓
Noise and vibration	✓	✓	✓
Rehabilitation	✓	✓	✓
Greenhouse gas emissions	✓	✓	✓
Traffic	✓	✓	✓
Waste	✓	✓	✓
Weeds	✓	✓	✓
Decommissioning			

The EMP has been developed during the feasibility stage of the development of the KGGP project. Accordingly the management sub-plans are conceptual and have been termed 'provisional' in acknowledgement that as the project enters the design and implementation phases, there will be more specificity around aspects of project construction and operation and the management plans will likewise become more detailed. The EMP would also continue to be developed and refined following the conclusion of the assessment process, taking into consideration the proposed timing of development activities, comments on the draft EIS and incorporating the recommendations and conclusions of the Environmental Assessment Report.

In applying for consent to construct and consent to operate the KGGP under the *Energy Pipelines Act*, Pacific Aluminium would prepare a Pipeline Management Plan. Detailed environmental management plans would be submitted alongside or referenced in the Pipeline Management Plan and become a key component of project authorisation (should that be granted).

While the KGGP is planned to be built, operated and owned by Pacific Aluminium, aspects will possibly be subcontracted to an organisation with current experience in management responsibilities for such infrastructure.

A key consideration for the environmental management of the KGGP project will be to ensure that systems are in place to ensure that the measures in the provisional management plans are accounted for in the preparation of the detailed plans (referred to above) that would be the subject of authorisation. Systems would ensure there is sound reasoning if changes are made and that during construction, the commitments of the management plans are being adhered to.

This will be achieved through project controls implemented by both Pacific Aluminium and the construction contractor including:

- Independent review of detailed management plans for their conformity with EIS commitments.
- Contractor environmental controls.
- Inspection and third party auditing of construction of the project (regular inspections and two formal compliance audits).
- Third party compliance auditing of project operation (annual).
- Development of a Land Access Protocol and provision of cultural awareness training for all employees working on the KGGP Project.

Contractor controls during the construction phase will take the following form:

- Environmental Management System (EMS) and Construction Environment Management Plan (CEMP): this will include: work method statements that will be developed as an important field based instruction for relevant work activities; an outline of the quality assurance methods to be employed; provisions for induction and training; monitoring and auditing; complaint management; and roles and responsibilities.
- Controls and Incident reporting: control measures will be developed and documented to ensure that the objectives of the CEMP are met. Control measures will be periodically reviewed for adequacy and amended as required to ensure adverse environmental impacts are minimised.
- All complaints and incidents will be dealt with promptly and efficiently by suitably trained and qualified personnel. All significant environmental incidents, including near-misses, will be reported and investigated immediately by the Construction Contractor using their approved reporting procedure, which will identify appropriate corrective actions. An Incidents and Complaints Register will be maintained, and will be available for inspection as required by the representative of the regulator.
- Training and Induction: The CEMP will outline the provisions for training and induction for all on-ground personnel. An induction would be a pre-requisite before accessing the construction site and / or commencing any work on the project. It would include a familiarisation with the KGGP Project, and to the applicable EHS policies and procedures. Inductees will be specifically introduced to the project CEMP, and to their roles and responsibilities as defined in that document.

- Roles and responsibilities: the CEMP will outline the roles and responsibilities for on-ground construction personnel including sub-contractors. This will include:
 - Environmental Manager.
 - Environmental Officers:
 - Fauna Handlers
 - Land liaison officers.

Pacific Aluminium intends to publicly report on environmental performance of the construction and operation phases through its annual sustainability report.

During the operational phases the EMP (as referenced in the Pipeline Management Plan) would be reviewed by Pacific Aluminium on an annual basis to ensure that:

- The environmental targets and performance indicators continue to be appropriate.
- Actions in the implementation strategy have been achieved and/or continue to be appropriate.
- The monitoring program continues to align with the operational phase of the project.

To achieve the purpose of the review, input will be sought from the contractors implementing the KGGP Project, relevant government agencies and key stakeholders.

17.7 OFFSETS, ENHANCEMENTS AND OTHER ENVIRONMENTAL COMMITMENTS

17.7.1 Offsets

Under the *EPBC Act Environmental Offsets Policy* (DSEWPaC 2012a), offsets are not required where the residual impact on Matters of NES is not likely to be significant (i.e. when assessed against the *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (DEWHA 2009)).

Chapter 10 (MNES) of this EIS documents the results of the impact assessment process and concludes that with the implementation of the proposed mitigation measures, the residual impacts associated with the construction and operation of the KGGP Project on Matters of NES would not be not be significant, based on information that is currently available. As such, offsets relating to any Matters of NES are not required under the Commonwealth offsets policy.

However, Pacific Aluminium is committed to ensuring that all residual impacts on Matters of NES are managed effectively, even if they are not significant. As such, Pacific Aluminium would implement the following program to enhance Gouldian Finch habitat within the pipeline region. This enhancement program is summarised as follows:

- Work with the NLC to develop a Gouldian Finch enhancement program to improve habitat quality for the species.
- Indicatively, the enhancement program would involve:
 - Agreeing with NLC on an area proximate to the pipeline corridor to be subject to a fire management program. This broad area would be likely to or known to include habitat for Gouldian Finch that is similar to habitat to be disturbed through the KGGP Project.
 - Funding indigenous ranger groups to undertake fire management in these areas in accordance with an agreed program, for the purpose of improving habitat quality for the Gouldian Finch.

- The initial part of this work would include evaluating where fire processes are likely to have had or continue to be causing decline in habitat quality for the Gouldian Finch and to design an early dry season burn program to reduce occurrence of late season fires.

The area that would be included in the enhancement program would be located within a broad area in the vicinity of the project area and would be up to ten times the area of potential Gouldian Finch habitat cleared for the KGGP. Although offsets are not required, this enhancement program would be consistent with the Offsets Assessment Guide and it is envisaged that the program would also improve the habitat quality for any listed threatened species that may occur within the project area.

The enhancement program would:

- As much as possible target those areas of habitat where improvement would have the most potential benefit to the Gouldian Finch.
- Potentially avert further decline of habitat quality and reduce the risk of loss of habitat in the subject area.
- Potentially have an immediate ecological benefit (i.e. within one year) with this benefit increasing over time as the program is implemented.
- Involve capacity building among indigenous ranger groups to ensure long term benefit.

Although offsets are not required, Pacific Aluminium would provide an outline of the Gouldian Finch Habitat Enhancement Program to DSEWPaC, including an analysis of the enhancement program using the offsets calculator provided in the Offsets Assessment Guide, taking into account any uncertainty around likely effectiveness and security.

17.7.2 Other environmental commitments for the region

Separate to the environmental offset for any threatened species subject to a significant residual environmental impact as a result of the KGGP Project, Pacific Aluminium intends to continue or commence voluntary environmental enhancement programs aimed at assisting indigenous landholders manage environmental threats in the region including:

- Continued support for the Yellow Crazy Ant eradication program in the Gove region for the Gove mining operations.
- Opportunity for Indigenous rangers to participate in project specific environmental controls (such as weed management and rehabilitation) that integrates with existing ranger programs.
- Opportunity for Indigenous rangers to participate in ongoing monitoring of the effectiveness of rehabilitation of areas disturbed during the construction of the KGGP.