

## Part 7: Environmental management



## 21. Environmental management system

### 21.1 API'S ENVIRONMENTAL POLICY

API's Environmental Policy (see below) is the guiding document for driving environmental management and provides context and specific direction for continuous improvement. The basis for and application of the Environmental Policy is outlined in Table 21.1.

	<b>Environmental Policy</b>	Australian Premium Iron West Pilbara Iron Ore Project			
<p>API Management Pty Ltd (API) manages the Australian Premium Iron Joint Venture, which is an equal joint venture formed between Aquila Resources Ltd and American Metals and Coal International Inc (AMCI) to develop the West Pilbara Iron Ore Project, a long-term iron ore export business in the Pilbara region of Western Australia.</p>					
<p>API recognises the opportunity presented in a greenfield development to balance social, economic and environmental aspects from project inception. API considers that the long-term success of the West Pilbara Iron Ore Project is dependent on achieving success in each aspect and will develop and manage the project with this objective.</p>					
<p><b>Our Environmental Principles</b></p>					
<p>To achieve excellence in environmental performance API will:</p>					
<ol style="list-style-type: none"> <li>1. Integrate environmental objectives with social and economic considerations in our business planning.</li> <li>2. Apply a systematic, risk-based approach in ensuring an appropriate allocation of resources and effort towards environmental management and improvement.</li> <li>3. Adopt outcome and process based performance and improvement targets, quantified where possible.</li> <li>4. Treat compliance with applicable laws and regulations and fulfilment of the requirements of agreements and codes to which we are a party as the minimum acceptable standard of performance.</li> <li>5. Regularly review and report our environmental performance.</li> <li>6. Minimise our emission of pollutants, including greenhouse gases.</li> <li>7. Promote the efficient use, reuse and recycling of resources and the minimisation of waste.</li> <li>8. Operate on the basis that all API employees and those providing services and materials to API share in the responsibility of achieving our required standards of environmental performance.</li> <li>9. Strive to continually improve our performance, in a planned and structured way.</li> <li>10. Openly communicate our environmental policy, plans and performance to interested stakeholders.</li> </ol>					
					
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Table 21.1 Basis for and application of API's Environmental Policy

Paragraph of Policy	Underlying Principle(s)	Primary Method(s) of Application
API Management Pty Ltd (API) manages the Australian Premium Iron Joint Venture, which is an equal joint venture formed between Aquila Resources Ltd and American Metals and Coal International Inc (AMCI) to develop the West Pilbara Iron Ore Project, a long-term iron ore export business in the Pilbara region of Western Australia.	Contextual: API operates in response to a demand of modern society and contributes to a standard of living.	Core business.
API recognises the opportunity presented in a greenfield development to balance social, economic and environmental aspects from project inception.	Balanced development based on triple bottom line approach.	Planning and overall conduct of business.
API considers that the long-term success of the West Pilbara Iron Ore Project is dependent on achieving success in each aspect and will develop and manage the project with this objective.	Acknowledges there are some unavoidable environmental impacts of activities and seeks to minimise these and create lasting benefits that, on balance, outweigh negative impacts.	Application of procedures within WPIOP; and Environmental Management Plans to minimise risks and impacts.  Pursuit of opportunities in consultation with stakeholders.
Integrate environmental objectives with social and economic considerations in our business planning.	API operates in response to a demand of modern society and contributes to a standard of living.	Core business.
Apply a systematic, risk-based approach in ensuring an appropriate allocation of resources and effort towards environmental management and improvement.	Systematic, planned approach.	Plan – do – review cycle applied through system and management procedures.
Adopt outcome and process based performance and improvement targets, quantified where possible.	Review of performance.	Plan – do – review cycle applied through system and management procedures.
Treat compliance with applicable laws and regulations and fulfilment of the requirements of agreements and codes to which we are a party as the minimum acceptable standard of performance.	Compliance.	Application of procedures within WPIOP; and Environmental Management Plans to ensure awareness and fulfilment of legal requirements.
Regularly review and report our environmental performance.	Review of performance.	Plan – do – review cycle applied through system and management procedures.
Minimise our emission of pollutants, including greenhouse gases.	Pollution prevention.	Application of procedures within WPIOP; and Environmental Management Plans.
Promote the efficient use, reuse and recycling of resources and the minimisation of waste.	Waste minimisation.	Application of procedures within WPIOP; and Environmental Management Plans.

Paragraph of Policy	Underlying Principle(s)	Primary Method(s) of Application
Operate on the basis that all API employees and those providing services and materials to API share in the responsibility of achieving our required standards of environmental performance.	Open communication, internal and external.	Annual Environmental Performance Report.
Strive to continually improve our performance, in a planned and structured way.	Continuous improvement. Review of performance. Adequate resourcing of commitment.	Plan – do – review cycle applied through system and management procedures.
Openly communicate our environmental policy, plans and performance to interested stakeholders.	Stakeholder consultation. Open communication, internal and external.	Annual Environmental Performance Report.

## 21.2 API'S ENVIRONMENTAL MANAGEMENT SYSTEM

API will control the environmental risks associated with the Proposal through implementation of a structured environmental management system (EMS). The EMS will reflect the approach defined in the international standard for environmental management (ISO 14001) and is the means by which API will give effect to its Environmental Policy. This approach is outlined in Figure 21.1.

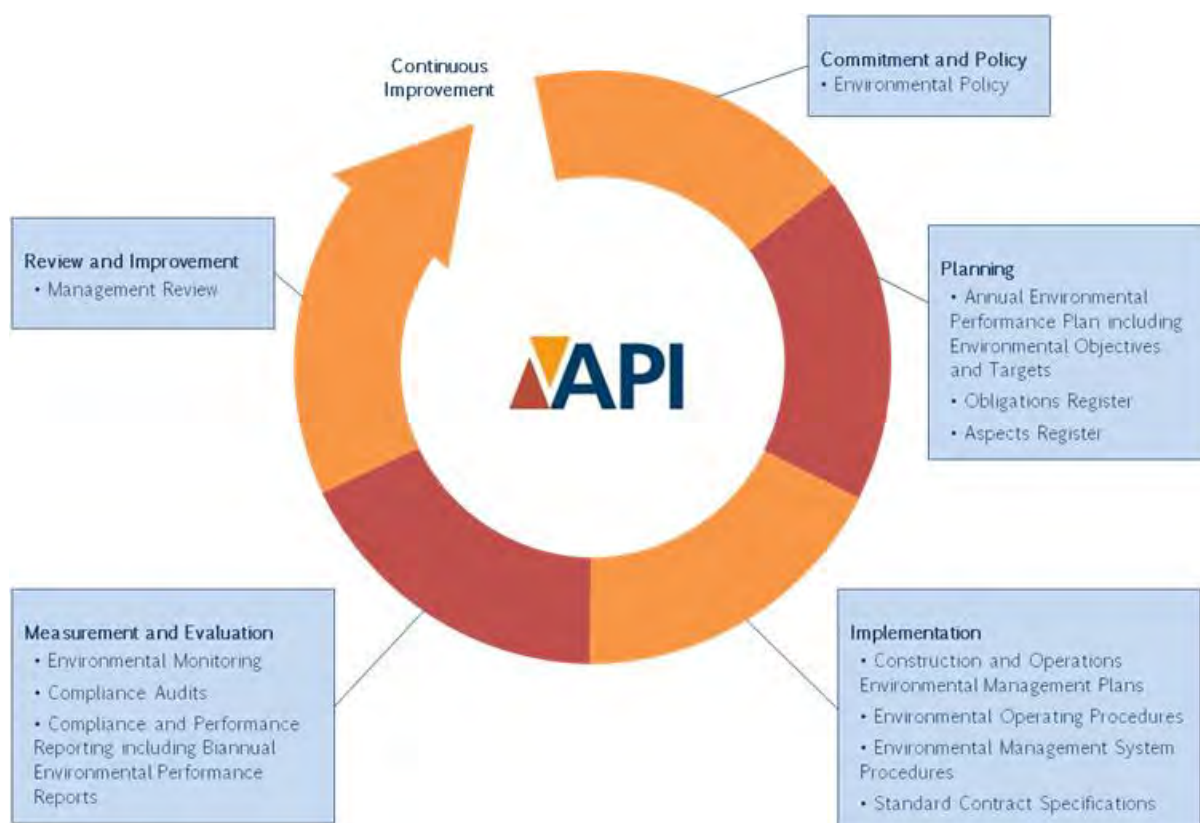


Figure 21.1 Outline of API's Environmental Management System

A summary description of the key documentation of API's EMS is given in Table 21.2, with further discussion on components of the API EMS provided following this table.

Table 21.2 API Environmental Management System key documentation

Document	Description / Purpose
Environmental Policy	Overarching statement of commitment by API to environmental responsibility and management of environmental risks.
Environmental Management System Manual	A reference manual that provides guidance on the development and implementation of the West Pilbara Iron Ore Project EMS. Includes environmental management system procedures.
Environmental Management Plans	The Project Environmental Management Plan (PEMP) includes procedures and plans that guide environmental management practices. The plans contain or make reference to prescriptive environmental procedures and forms for monitoring and managing the significant environmental aspects of the Proposal
Obligations Register	A listing of environmental regulatory, legislative and corporate undertakings.
Aspects Register	A register of the environmental aspects of the project, with an evaluation and ranking of associated environment risks.
Annual Environmental Performance Plan	An action plan listing major goals and undertakings planned for the coming year, including objectives and targets for environmental aspects of the operations.
Biannual Environmental Performance Report	Six-monthly summary of environmental performance for review by senior API management.

### 21.2.1 Commitment and policy

API's Environmental Policy and its underlying principles and primary methods of application to this Proposal are as shown and discussed in Section 21.1 above.

### 21.2.2 Planning

As part of the EMS planning process, API is developing and will implement the following:

- Environmental Aspects Register; and
- Environmental Obligations Register.

### 21.2.3 Implementation and operation

Implementation and operation of the Proposal will be undertaken in accordance with a range of overall EMS management procedures including:

- Resources, roles, responsibility and authority;
- Training and Awareness;
- Communication;
- Document Control and Records Management; and
- Incidents and Corrective Action.

Procedures are also being developed to assist in the management of potential impacts on particular aspects, or potential impacts which may result from specific activities or elements of projects during operation if not appropriately managed:

- Indigenous Heritage;
- Borrow Pits;
- Bushfire;
- Dust;
- Financial Provision for Rehabilitation and Closure Costs;

- Greenhouse Gas Emissions Reporting and Reduction;
- Ground Disturbance;
- Groundwater Use and Management;
- Hydrocarbons and Chemicals;
- Landform Construction;
- National Pollutant Inventory Reporting;
- Priority Flora;
- Revegetation;
- Roads and Tracks;
- Topsoil and Subsoil Recovery and Stockpiling;
- Vertebrate Fauna;
- Waste Management and Recycling; and
- Weeds.

#### 21.2.4 Management and evaluation

Management and evaluation of the implementation Proposal will be undertaken in accordance with the following API EMS procedures:

- Environmental Monitoring and Measurement; and
- Audit.

#### 21.2.5 Review and improvement

Review and improvement of the Proposal will be undertaken in accordance with the following API EMS procedures:

- Change Management; and
- Performance Reporting and Management Review.

### 21.3 PROJECT ENVIRONMENTAL MANAGEMENT PLAN

The PEMP will comprise an overall environmental management framework and specific management plans to address relevant environmental factors. It will incorporate all relevant EMS procedures as discussed in Section 21.2, which are standard environmental management procedures that are not species or area specific and implemented by API for all of its activities. It will also incorporate a number of specific plans to address key environmental factors associated with this Proposal.

Specific plans that will form part of the PEMP and which are included in Appendix 3 of this PER/draft PER for review, comment and approval as part of the state and Commonwealth regulatory environmental assessment processes for this Proposal are:

- Dredge Environmental Management Plan;
- Marine Fauna Management Plan;
- Coastal Habitat Management Plan;
- Oil Spill Contingency Plan;
- Marine Pests Monitoring and Control Plan;
- Sediment Quality Management Plan; and
- Desalination Discharge Management Plan.





## 22. Proposed environmental conditions

### 22.1 INTRODUCTION

This section proposes a set of outcome-based environmental conditions that, together with the regulatory mechanisms summarised in Section 5, provide the regulatory assurance that key environmental factors will be appropriately managed in the implementation of the Proposal.

A set of outcome-based environmental conditions are proposed based on the Western Australian assessment and approval process under the EP Act, that focus on the key environmental issues arising from the Proposal and avoid duplication and overlap with existing statutory controls where:

- there is an aspect of the Proposal that requires management to ensure the desired environmental outcome is achieved;
- the environmental aspect may not be securely managed or protected by other existing regulatory controls, to an acceptable standard or to achieve EPA objectives;
- no existing regulatory controls apply; or
- there is a desire to set the environmental outcomes to be achieved by other regulatory controls or by the proponent.

The proposed environmental conditions are intended to be included in the statement issued under Part IV of the EP Act, should the Minister for Environment decide the Proposal may be implemented.

It is expected that similar conditions related to matters of National Environmental Significance would be included in any approval granted by the Minister for Environment Protection, Heritage and the Arts under Section 9 of the EPBC Act.

### 22.2 PROPOSED ENVIRONMENTAL CONDITIONS

Implementation of the Proposal is expected to confine impacts to those assessed in the PER/draft PER, and a key characteristics table developed in accordance with EPA assessment guidelines (EPA, 2009c) (see Table 2.2) is proposed to form a schedule within the statement issued by the Minister under Part IV of the EP Act.

The proposed environmental conditions for the management of the Proposal are presented in Table 22.1. The EPA may wish to specify the environmental standards or objectives for those factors covered by other regulatory and statutory controls. The conditions proposed are outcome-based in accordance with EPA (2009d) (and are thus auditable) and provide for reporting on compliance and the environmental performance of the Proposal.

Table 22.1 Proposed environmental conditions

Condition No.	Proposed environmental condition
<b>Proposal implementation (based on standard condition commonly recommended by EPA)</b>	
1-1	The Proponent shall implement the Proposal subject to the conditions of this statement and within the envelope defined in Schedule 1 of this Statement.
<b>Proponent Nomination and Contact Details (based on standard condition commonly recommended by EPA)</b>	
2-1	The Proponent nominated by the Minister for Environment under section 38(6) or 38(7) of the <i>Environmental Protection Act 1986 (WA)</i> is responsible for the implementation of the Proposal.
2-2	The Proponent shall notify the Chief Executive Officer (CEO) of the Office of the Environmental Protection Authority (OEPA) of any change of the name and address of the Proponent for the serving of notices or other correspondence within 30 days of such change.

Condition No.	Proposed environmental condition
<b>Time Limit of Authorisation (based on standard condition commonly recommended by EPA)</b>	
3-1	The authorisation to implement the Proposal provided for in this Statement shall lapse and be void within five years after the date of this Statement if the Proposal to which this Statement relates is not substantially commenced.
3-2	The Proponent shall provide the CEO of the OEPA with written evidence which demonstrates that the Proposal has substantially commenced, on or before the expiration of five years from the date of this Statement.
<b>Compliance Reporting (based on standard condition commonly recommended by EPA)</b>	
4-1	The Proponent shall prepare and maintain a compliance assessment plan.
4-2	The Proponent shall submit to the CEO of the OEPA, the compliance assessment plan required by condition 4-1 at least six months prior to the first compliance report required by condition 4-6. The compliance assessment plan shall indicate: <ul style="list-style-type: none"> <li>• frequency of compliance reporting</li> <li>• approach and timing of compliance assessments</li> <li>• retention of compliance assessments</li> <li>• methods for reporting of potential non-compliances and associated corrective actions</li> <li>• table of contents of compliance reports</li> <li>• public availability of compliance reports.</li> </ul>
4-3	The Proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.
4-4	The Proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO of the OEPA.
4-5	The Proponent shall advise the CEO of the OEPA of any non-compliance as soon as practicable.
4-6	The Proponent shall submit a compliance assessment report annually from the date of issue of this Statement addressing the previous 12 month period or as agreed by the CEO of the OEPA. The compliance assessment report shall: <ul style="list-style-type: none"> <li>• be endorsed by the Proponent's Managing Director or a person, approved in writing by the OEPA, delegated to sign on the Managing Director's behalf</li> <li>• include a statement as to whether the Proponent has complied with the conditions</li> <li>• identify all non-compliances and describe corrective and preventative actions taken</li> <li>• be prepared and made publicly available in accordance with the compliance assessment plan</li> <li>• indicate any proposed changes to the compliance assessment plan required by condition 4-1.</li> </ul>

Condition No.	Proposed environmental condition
<b>Performance Review, Monitoring and Reporting (modification of a condition commonly recommended by EPA)</b>	
5-1	The Proponent shall prepare and maintain a Performance Review Program.
5-2	<p>The Proponent shall submit to the CEO of the OEPA, the Performance Review Program required by condition 5-1 at least 12 months prior to the first Performance Review Program report required by condition 5-3. The Performance Review Program shall address monitoring programs, key performance indicators and targets for the following key environmental matters:</p> <ul style="list-style-type: none"> <li>• benthic primary producer habitat requirements outlined within condition 6-1 to 6-4 of this Statement;</li> <li>• mangrove benthic primary producer habitat requirements outlined within condition 7-1 to 7-2 of this Statement;</li> <li>• marine fauna requirements outlined within condition 8-1 of this Statement; and</li> <li>• <i>Lerista neviniae</i> habitat management requirements outlined within conditions 9-1 to 9-4 of this statement.</li> </ul>
5-3	<p>The Proponent shall submit to the CEO of the OEPA a report on the Performance Review Program within two years of the issue of the formal authority issued to decision making authorities under s.47(7) of the <i>Environmental Protection Act 1986</i> and then every two years thereafter, which addresses:</p> <ul style="list-style-type: none"> <li>• results and trends of monitoring programs described in the Performance Review Program required by condition 5-2;</li> <li>• achievement (or otherwise) of targets, the success (or otherwise) of mitigation and management measures in achieving these predicted outcomes and rehabilitation criteria; and</li> <li>• proposed or implemented changes to mitigation and management measures to ensure targets are achieved.</li> </ul>
<b>Benthic Primary Producer Habitat</b>	
6-1	The proponent shall implement its Dredge Environmental Management Plan (DEMP), provided in Appendix 3 of the Anketell Point Port Public Environmental Review December 2010, or subsequent revisions, , that minimises the risk of indirect losses of benthic primary producer habitat caused by the dredging program.
6-2	<p>The proponent shall ensure that direct and indirect losses of total benthic primary producer habitat (seagrass, macroalgae, turf algae coral) caused by the dredging program within Local Assessment Units (LAUs), do not exceed the predicted losses as outlined below:</p> <ul style="list-style-type: none"> <li>• LAU1 – 0.0 ha</li> <li>• LAU2 – 2.3 ha</li> <li>• LAU3 – 8.5 ha</li> <li>• LAU4 – 3.1 ha</li> <li>• LAU4a – 11.7 ha</li> <li>• LAU5 – 0.3 ha</li> <li>• LAU6 – 0.0 ha</li> </ul>
6-3	The proponent shall monitor and record the loss of benthic primary producer habitat within LAUs 1 to 6, for the duration of the dredging campaign and for twelve months following the dredging campaign if impacts are within predicted levels, or for up to 5 years if impacts exceed predictions, to the requirements of the OEPA.
6-4	Two months following the conclusion of monitoring referred to in condition 6-3 the proponent is to report to the CEO of the OEPA, the total cumulative loss of each benthic primary producer habitat type (seagrass, macroalgae, turf algae and coral) and LAUs 1 to 6.

Condition No.	Proposed environmental condition
<b>Mangroves</b>	
7-1	The proponent shall implement the Coastal Habitat Management Plan (CHMP) provided in Appendix 3 of the Anketell Point Port Public Environmental Review December 2010, or subsequent revisions, to ensure that the implementation of the proposal does not result (through either direct or indirect impacts) in a loss of more than 0.42 ha of mangroves.
<b>Marine Fauna</b>	
8-1	The proponent shall implement the proposal in accordance with the following management plans provided in Appendix 3 of the Anketell Point Port Public Environmental Review, December 2010, or subsequent revisions: <ul style="list-style-type: none"> <li>g) Desalination Discharge Management Plan</li> <li>h) Dredge Environmental Management Plan</li> <li>i) Marine Fauna Management Plan</li> <li>j) Marine Pest Monitoring and Control Management Plan</li> <li>k) Oil Spill Contingency Plan</li> <li>l) Sediment Quality Management Plan</li> </ul>
<b>Fauna – Short-range Endemics</b>	
9-1	The proponent shall not clear or disturb: <ul style="list-style-type: none"> <li>c) The ground or any vegetation beyond the proposal envelope depicted in Figure 2.1 of the PER;</li> <li>d) More than a total combined area of 8.1 hectares of vegetation from those portions of the development footprint that extend over <i>Lerista neviniae</i> habitat as outlined in 3.21 of the PER.</li> </ul>
9-2	The proponent shall not clear <i>Lerista neviniae</i> habitat to access borrow, or for the purpose of laydown or storage, or for any purpose other than that essential for the construction of port infrastructure.
9-3	The proponent shall submit a ground disturbance report to the CEO of the OEPA to demonstrate ongoing compliance with conditions 9-1 and 9-2 above initially bi-annually from the commencement of ground disturbing activities, during construction, and then annually during operations.  The report shall describe the extent of ground disturbance and include an evaluation and statement as to the amount of <i>Lerista neviniae</i> habitat cleared.
9-4	The proponent shall implement the proposal in accordance with the Coastal Habitat Management Plan provided in Appendix 3 of the Anketell Point Port Public Environmental Review December 2010, or subsequent revisions.