

## **25.0 Environmental Management Plan**

Alcan Gove's environmental management plan provides the framework to implement Alcan's global directives for sustainability and environmental protection.

### **25.1 Introduction**

Alcan Gove has developed and maintains a comprehensive Environmental Management System (EMS) to manage environmental issues relating to the existing Gove operations. The EMS is certified to the ISO 14001 standard (currently awaiting official notification following a successful certification audit). This EMS is in line with the Alcan EHS Management System, EHS First. Alcan Gove's existing Environment Management Plan (EMP) details how significant environmental aspects are managed. The EMP is periodically reviewed and updated to reflect operational change, changes in legal and other commitments and environmental performance. The EMP is included in the Mining Management Plan. The Mining Management Plan is reviewed and approved by the Northern Territory Government on a yearly basis.

Environmental issues requiring management and monitoring for the construction and operational phases of the expanded refinery have been identified during the EIS process. Environmental commitments made throughout the EIS report will be managed under the framework of the existing site EMS and incorporated into Alcan Gove's EMP.

Alcan Gove's EMP will be reviewed at the conclusion of the environmental assessment process, taking into account comments on the draft EIS, the Supplement, and the recommendations of the NT Government's Assessment Report.

### **25.2 Environmental Management System (EMS)**

Due to the commonality of most elements of an EMS and a Health and Safety Management System, Alcan combines both management systems into an integrated Environment, Health and Safety (EHS) Management System. The following sections provide a description of each element that makes up the site EHS management system.

#### **25.2.1 Alcan Policy – Environment, Health and Safety (EHS)**

The Alcan's EHS policy (Appendix L) provides overall direction regarding the environmental, health and safety performance requirements.

#### **25.2.2 Planning**

##### **25.2.1.1 Risk Identification, Evaluation, Updating of Risks**

Alcan Gove has established and maintains a process to identify the environmental aspects and impacts and the health and safety hazards and risks associated with its activities, products and services that it can control and over which it can have an influence. This includes the process of risk management described in Section 24.1. This information is registered in the Alcan Gove Global Risk Register and is continually updated.

### **25.2.1.2 Legal and Other Requirements**

Alcan Gove complies with relevant Commonwealth and Northern Territory legislation, regulations, licences, lease conditions, voluntary commitments and Alcan internal standards. Alcan Gove has established a procedure and registers to identify and update lease, legal and other requirements relevant to its activities, products and services.

### **25.2.1.3 EHS Objectives, Targets and Action Plans (Environmental Management Plans)**

Continuous improvement in EHS is achieved and maintained through site EHS objectives, targets and action plans utilising the site's Performance Management System.

## **25.2.3 Implementation and Operation**

### **25.2.1.4 Structure and Responsibilities**

Management at Alcan Gove is defined as the Executive Management Team (EMT) and includes the Site Manager and direct reports to the Site Manager.

The Site Manager has appointed the General Manager EHS as the EHS System Management representative.

EHS responsibilities and authorities are detailed in a Position Responsibilities Register and in controlled documents such as site procedures, area procedures and instructions.

### **25.2.1.5 Training, Awareness and Competence**

Alcan Gove has developed and maintains a process to identify training needs, to manage the training delivery and to assess and maintain competencies including those related to environment, health and safety.

### **25.2.1.6 Communication, Consultation and Reporting**

Alcan Gove has established procedures to:

- Provide internal communication to all Alcan organisational levels and functions;
- Maintain internal consultation with its employees;
- Report EHS performance; and
- Communicate with external parties.

### **25.2.1.7 Documentation Control**

The EHS Management System documentation (manuals, procedures, forms, standards etc.) is controlled through a Document Register on Alcan Gove's internal web site. The Document Register is accessible by all Alcan Gove employees.

### **25.2.1.8 Operational Control**

Alcan Gove has identified the activities, products and services associated with significant environmental aspects and impacts and health and safety hazards and risks. These activities are undertaken in the appropriate manner to ensure the impacts and risks are minimised.

Operational Controls include:

- Establishing documented procedures such as standard task instructions, procedures and standards;
- Identifying, planning, scheduling maintenance tasks on equipment;
- Implementing, maintaining, preparing and updating documented procedures where control criteria are included;
- Establishing, updating and communicating relevant procedures related to goods and services linked with significant EHS impacts and risks to contractors and suppliers; and
- Conducting EHS reviews for process changes, plant trials and new projects.

#### **25.2.1.9 Emergency Response**

While the emphasis is on prevention of incidents, Alcan Gove has established and maintains documented procedures to identify the potential for and response to accidents and emergency situations, and for preventing and mitigating the EHS risks that may be associated with them.

### **25.2.4 Measurement, Evaluation and Corrective Actions**

#### **25.2.1.10 Monitoring and Measurement**

Alcan Gove has established and maintains processes for regularly monitoring and measuring the main characteristics of its operations and activities that could have a EHS impact or risk. This also includes the recording of information regarding follow-up on EHS performance, operational performance and periodic evaluation of compliance with legal and other requirements.

#### **25.2.1.11 Incident Investigation, Corrective and Preventive Actions**

Alcan Gove uses an electronic database (First Priority System) to manage the reporting, investigation, corrective and preventive actions and follow-up of incidents. This includes actions that arise from incidents, identified hazards, near misses, inspections, audits, complaints or requests from external parties. The effectiveness of these preventive and corrective actions is assessed through audits and ongoing monitoring programs.

#### **25.2.1.12 Records**

Hardcopy and electronic records are managed by a Records Register to demonstrate compliance with the EHS Management System.

#### **25.2.1.13 Audits**

Alcan Gove conducts EHS internal audits to determine the compliance of the EHS Management System, to verify the system is implemented, well maintained and effective, and to identify areas for improvement. Results of these audits are provided to management for their review and action as required.

### **25.2.2 Management Review**

Management reviews the EHS Management System which includes the Environment Management Plan to assess its effectiveness, suitability and adequacy. The effectiveness of the system and conformance to corporate goals is reported regularly to Alcan corporate management.

## **25.3 Environment Management Plan**

The Alcan Gove Environment Management Plan establishes objectives and targets for environmental aspects. Plans are established and resources allocated to meet these plans. The plan is reviewed annually and submitted to the NT Government. Progress on the achievement of the plan is also reported in Alcan Gove's annual public Environment, Health, Safety and Community report.

Environmental aspects addressed in the current Alcan Gove Environment Management Plan include:

- Waste management ;
- Air quality ;
- Greenhouse gases;
- Surface water;
- Groundwater;
- Resource conservation;
- Soil contamination;
- Marine environment;
- Weed management;
- Cultural heritage;
- Social and community; and
- Incidents and complaints.

## **25.4 Third Stage Expansion Construction Environment Management Plan**

### **25.4.1 Responsibility**

Alcan Gove retains overall responsibility for the environmental management during the construction phase. Proven EHS performance is a key selection criteria of the EPCM contractor. Achievement of agreed EHS standards during construction will be a contract requirement and penalties will apply for serious breaches. The EPCM Contractor (Engineering, Procurement and Construction Management) will be subject to Alcan and independent EHS audits.

The EPCM Contractor will be responsible for the preparation and implementation of the construction phase EMP which complements the Alcan Gove EMP. The EPCM Contractor will identify responsibilities and organisation required to implement the accountabilities of the construction phase EMP. The requirements of the EMP will apply to the EPCM Contractor and all sub-contractors.

The EPCM Contractor is also responsible for developing and implementing a site-specific induction program for all construction workers to complement the current Alcan Gove induction program. This program will include all EHS

hazards and aspects and their control measures. The EPCM Contractor will also ensure that all construction workers are trained and competent and hold the appropriate certification for the tasks that they will be undertaking.

In the event of a non-compliance with the EMP, it will be the responsibility of the EPCM Contractor to investigate and report and implement appropriate corrective actions in accordance with Alcan Gove procedures.

## 25.4.2 Reporting

Reports on the performance of the EPCM Contractor for each of the aspects of the EMP will include the following:

- Progress towards achieving targets;
- Non-compliances and results of any investigations; and
- Corrective actions.

Reports will be forwarded to Alcan Gove Management.

## 25.4.3 Draft Construction Environment Management Plan

### 25.4.3.1 Waste Management Plan

<b>Objective</b>	To manage all wastes generated on site in a sustainable manner.
<b>Target</b>	<p>Minimised waste generation.</p> <p>Adherence to cost effective waste management hierarchy by:</p> <ul style="list-style-type: none"> <li>• minimising waste generation</li> <li>• maximising waste re-use and materials re-use</li> <li>• maximising recycling</li> <li>• safely treating and disposing of all non-reusable and non-recyclable materials.</li> </ul>
<b>Action</b>	<p>A waste management plan will be developed by the EPCM Contractor for the construction stage that includes:</p> <ul style="list-style-type: none"> <li>• alignment with Alcan Gove's existing waste management standards.</li> <li>• the scope and objective of the plan.</li> <li>• opportunities and actions to be taken to implement the waste management hierarchy.</li> <li>• quantitative estimates of the expected waste streams and emissions.</li> <li>• agreement with suppliers to accept the return of unused materials.</li> <li>• training in waste minimisation practices.</li> <li>• monitoring.</li> <li>• emergency response procedures.</li> <li>• reporting.</li> </ul> <p>Examples of the actions to be undertaken include the following:</p> <ul style="list-style-type: none"> <li>• Topsoil from excavation work will be stripped in layers, and where possible, reused for, landscaping and rehabilitation.</li> <li>• Where practical, any excess materials and used chemical containers, will be returned to the supplier.</li> </ul>

	<ul style="list-style-type: none"> <li>Waste streams will be separated into various components at the point at which they are produced. Waste separation at source will be achieved by providing bins for re-useable and recyclable materials. An area on-site will be allocated for the collection of re-useable and recyclable materials.</li> <li>Oils will be collected and blended with fuel oil for future combustion in the refinery process.</li> <li>Wastes that cannot be re-used or recycled will be disposed of at a dedicated site at the Residue Disposal Area.</li> <li>Wastes from the construction village will be disposed of in the following manner: <ul style="list-style-type: none"> <li>Putrescible wastes will be disposed of at the Nhulunbuy landfill; and</li> <li>Sewage from the construction village will be pumped to the Nhulunbuy sewerage system for treatment and disposal.</li> </ul> </li> </ul>
<b>Monitoring</b>	<p>The following waste streams will be measured and reported:</p> <ul style="list-style-type: none"> <li>waste generation</li> <li>waste re-use</li> <li>waste recycling</li> <li>waste treatment and disposal</li> </ul>
<b>Reporting</b>	<p>During construction, the EPCM Contractor will report at monthly intervals to Management on the results of the waste monitoring program and other relevant waste management issues.</p>

#### 25.4.3.2 Air Quality Management Plan

<b>Objective</b>	To minimise the release of fugitive emissions to air from areas where construction activities are occurring.
<b>Target</b>	No fugitive emissions to air causing, or likely to cause an environmental nuisance on or beyond the boundaries of the site. These include odour, dust, smoke and fumes.
<b>Action</b>	<ul style="list-style-type: none"> <li>Reschedule vegetation clearing activities or earthworks during periods of high wind if visible dust is blowing off-site.</li> <li>Routing haul routes away from sensitive areas wherever possible.</li> <li>Ensure that dust generation from construction roads is managed</li> <li>Regular watering or other treatment of exposed construction areas subject to vehicle and machinery movements</li> <li>Ensuring that vehicles and equipment are appropriately maintained or covered to minimise air emissions.</li> <li>Vehicle speeds in construction will be limited to a maximum of 30 km/h.</li> <li>Revegetate disturbed areas as soon as possible</li> <li>No open burning of wastes to be undertaken</li> </ul>
<b>Monitoring</b>	<p>Visual inspections will be undertaken by the EPCM Contractor to check for evidence of excessive dust generation.</p> <p>If necessary, dust monitoring will be undertaken in areas likely to generate dust that would affect nearby residents and workplaces to determine whether controls are being applied effectively.</p>
<b>Reporting</b>	<p>Regular reports of the results of dust monitoring will be prepared by the EPCM Contractor documenting and assessing the significance of the results and recommending appropriate corrective actions.</p>

### 25.4.3.3 Noise Management Plan

<b>Objective</b>	To minimise the generation of noise emissions during the construction phase and to mitigate any potential noise impacts.
<b>Target</b>	The construction phase activities will be carried out in accordance with the draft Waste Management and Pollution Control (Environmental Noise) Regulation where appropriate. Construction activities undertaken in accordance with AS 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites".
<b>Action</b>	<p>The EPCM Contractor will implement the following strategies during the construction phase of the project:</p> <ul style="list-style-type: none"> <li>• Notify Galupa residents of the project prior to commencement of the construction phase. The notification should include the type of works being undertaken, the duration of the proposed works, and a contact for any questions or concerns</li> <li>• Ensure that all contractors on site have effectively controlled noise levels from equipment. Effective noise controls include: <ul style="list-style-type: none"> <li>– Regular inspection and maintenance of all vehicles and construction equipment working on-site.</li> <li>– Installation of sound suppressive devices (such as mufflers) on all mechanical plant as necessary.</li> <li>– Where practicable, vehicles and machinery that are used intermittently should not be left idling for long periods of time.</li> </ul> </li> <li>• Excessively noisy activities will be conducted between 7 am – 7 pm if they are likely to be of annoyance to local residents.</li> <li>• Equipment used on site will be the quietest reasonably available.</li> <li>• Best available work practices will be employed on-site to minimise occupational noise levels.</li> <li>• Haul routes for construction traffic entering and leaving the site will be selected to ensure noise levels at noise sensitive receptors are kept at a minimum.</li> <li>• The adjacent residents will be notified prior to any atypical noise events or noisy operations outside of 7 am – 7 pm Monday to Sunday.</li> </ul>
<b>Monitoring</b>	<p>Any monitoring conducted will be in accordance with the draft Waste Management and Pollution Control (Environmental Noise) Regulation and Australian Standard 1055 Acoustics - Description and Measurement of Environmental Noise AS 1055.1 - 1997.</p> <p>Scheduled maintenance will be undertaken for construction equipment to maintain in optimal working condition.</p>
<b>Reporting</b>	All complaints will be documented, acted on and reported in accordance with current site procedures.

#### 25.4.3.4 Surface Water Management Plan

<b>Objective</b>	Minimise the discharge of contaminated surface water to the surrounding environment.
<b>Target</b>	Compliance with the Waste Discharge Licence under the provisions of the <i>NT Water Act</i> . No accelerated erosion during construction activities.
<b>Actions</b>	<p>Provide bunded storage areas for fuels and dangerous goods with spill cleanup kits in accordance with the requirements of AS 1940:1993 and AS 3780:1994.</p> <p>Implement controls to ensure all transfer of fuels and chemicals is managed to prevent spillage outside of bunded areas.</p> <p>Prepare and implement a site-specific construction erosion and sediment control plan in accordance with the Institution of Engineers Australia – Erosion and Sediment Control Guidelines (1996) and the NT Conservation Commission (Applegate 1983).</p> <p>Measures to be taken to minimise the impact of erosion and sediment movement include the following:</p> <p><i>Infrastructure and Development Areas</i></p> <ul style="list-style-type: none"> <li>• Limit the disturbed area and clearing progressively, immediately prior to construction activities commencing.</li> <li>• Safeguarding the surface layer by stripping and stockpiling useable topsoil prior to construction.</li> <li>• Using temporary soil diversion mounds to control runoff within and divert water away from the construction site.</li> <li>• Minimise the period that bare soil is left exposed to erosion.</li> <li>• Use sediment traps/silt fences etc, to minimise off-site effects of erosion.</li> <li>• Provision of rapid vegetation cover, including, where required, erosion control matting.</li> <li>• Reuse of stored topsoil in the revegetation and landscaping activities.</li> </ul> <p><i>Construction Roads and Temporary Access Tracks</i></p> <ul style="list-style-type: none"> <li>• Grade roads to a crown and provided efficient surface drainage to prevent runoff eroding either the road surface or the adjacent land.</li> <li>• Where necessary, low mounds angled across the track will be constructed to divert runoff (at a non erosive velocity) into adjacent areas.</li> <li>• Create cut and fill batters (associated with service tracks) to a safe slope and stabilised by vegetation where practicable.</li> <li>• Where table drains need to be established, they will be designed to a broad dish shape, grassed or lined appropriately, to prevent erosion.</li> <li>• All temporary construction tracks and laydown areas will be removed and rehabilitated when construction is completed.</li> </ul> <p><i>Vegetation Clearing</i></p> <ul style="list-style-type: none"> <li>• Limit the disturbance of vegetation in construction areas to a practical minimum</li> </ul> <p><i>Pipelines</i></p> <ul style="list-style-type: none"> <li>• Limit disturbance of topsoil and vegetation along pipeline easements.</li> <li>• Where significant disturbance of the ground surface is necessary, topsoil will be removed from the area to be disturbed, and stockpiled as work commences.</li> <li>• Establish vegetation growth or rock mulch in areas where diversion channels and culverts are proposed to divert flow and control runoff.</li> </ul>
<b>Monitoring</b>	The EPCM Contractor shall conduct regular inspections of construction areas and assess the condition and operability of site drains and erosion mitigation measures. Inspections shall be conducted on a weekly basis during the wet season as well as after each significant rainfall event.

<b>Reporting</b>	<p>The EPCM Contractor will report monthly to the Site Manager on the following:</p> <ul style="list-style-type: none"> <li>• compliance with approved erosion and sediment control plan</li> <li>• incidents of erosion or other water contamination</li> <li>• results of weekly inspections</li> <li>• results of any corrective actions</li> </ul>
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#### 25.4.3.5 Soil Contamination Management Plan

<b>Objective</b>	<ul style="list-style-type: none"> <li>• Prevent soil contamination.</li> <li>• Manage contaminated soil disturbed by construction.</li> </ul>
<b>Target</b>	<ul style="list-style-type: none"> <li>• No new incidents of soil contamination.</li> <li>• No receptor impacted by contaminated soil disturbed during construction.</li> </ul>
<b>Actions</b>	<p>Investigate the extent of contaminated soils in the areas to be excavated for the construction of new refinery plant prior to completion of detailed engineering design.</p> <p>All identified sites will be managed to ensure that their disturbance will not cause an unacceptable risk to human health or the environment. This will be in accordance with Alcan Gove policy and will incorporate the following phases as appropriate:</p> <ul style="list-style-type: none"> <li>• Phase 1 – contamination audit</li> <li>• Phase 2 – ground investigation and risk assessment</li> <li>• Phase 3 – remediation</li> </ul> <p>The EPCM Contractor will ensure that appropriate protective measures are implemented for workers in the vicinity of any identified contaminated soils.</p> <p>The EPCM Contractor will minimise the risk of ground contamination from all construction activities. Measures to be adopted will include:</p> <ul style="list-style-type: none"> <li>• Construction of appropriate spill containment facilities for all chemicals and fuel storage areas (in accordance with AS 1940 and AS 3740).</li> <li>• Establishing and maintaining a Hazardous Materials Register detailing the location and quantities of hazardous substances including their storage, use and disposal.</li> <li>• Training of operators and implementation of safe work practices for minimising the risk of spillage.</li> </ul>
<b>Monitoring</b>	<p>Weekly inspection by the EPCM Contractor of all construction fuels and chemicals storage areas to ensure adequate containment and bunding.</p> <p>Any identified contaminated sites will be monitored in accordance with the requirements of the any relevant management plan.</p>
<b>Reporting</b>	<p>The EPCM Contractor will keep records of weekly inspections of the storage areas of construction fuels and chemicals.</p> <p>The EPCM Contractor will report any contamination incidents to the Site Manager.</p> <p>The EPCM Contractor will report after each phase on sites that require contamination management.</p>

#### 25.4.3.6 Terrestrial Flora Management Plan

<b>Objective</b>	<p>To minimise the impact of construction activities on vegetation adjacent to construction areas.</p> <p>To prevent the spread of weeds.</p>
<b>Target</b>	No disturbance of flora outside of designated construction activity areas.
<b>Action</b>	Construction activities to be limited to designated construction activity areas unless approved by the EPCM Contractor.

	<p>Traditional owners will be advised prior to any significant clearing of vegetation.</p> <p>The total area to be cleared for construction will be restricted to the minimal area required. This area will be clearly marked prior to any works commencing.</p> <p>Current quarantine practices at Gove will continue and additional inspection and reporting systems will be developed in accordance with AQIS requirements..</p> <p>The current weed control program will be continued. It will involve the periodic (monthly) inspection of the site area and control of infestations of declared environmental weeds. The source of any infestation will be investigated and the most appropriate control technique will be implemented.</p> <p>Stockpile and equipment set-down areas and haul roads required during construction will be clearly identified, so that weed establishment and potential spread of plant diseases and pests may be contained.</p>
<b>Monitoring</b>	Monitoring of vegetation health adjacent to the construction activity area will be undertaken during and after construction.
<b>Reporting</b>	Any incidents of unauthorised vegetation disturbance or weed infestation will be reported in accordance with site reporting and compliance auditing procedures.

#### 25.4.3.7 Terrestrial Fauna Management Plan

<b>Objective</b>	<p>To minimise impact of construction activities on fauna and habitats adjacent to construction areas.</p> <p>To prevent the spread of fauna pests.</p>
<b>Target</b>	Minimise the impact of construction on the local fauna
<b>Actions</b>	<p>Current quarantine practices at Gove will continue and additional inspection and reporting systems will be developed in accordance with AQIS requirements.</p> <p>Bushland and habitat will be managed to maintain habitat values.</p> <p>Plans will be developed to educate construction workers concerning the impacts pests animals.</p> <p>Construction workers will be prevented from transporting or keeping pets in the construction village. Any sightings of cats around the refinery, and construction accommodation village will be reported.</p> <p>Existing feral animal control programs will be updated to take account of construction activities.</p>
<b>Monitoring</b>	Monitoring for evidence of habitat disturbance or feral pest presence will be undertaken by the EPCM Contractor.
<b>Reporting</b>	Incidents of non-approved disturbance or feral pest presence will be reported by the EPCM Contractor to top management.

#### 25.4.3.8 Mosquito Management Plan

<b>Objective</b>	To prevent the occurrence of potential mosquito breeding sites and the presence of adult mosquitos.
<b>Target</b>	No mosquito breeding sites created by construction activities.
<b>Actions</b>	<p>Comply with AQIS requirements to manage the risk of introducing new mosquitoes and other potential vectors for disease.</p> <p>Any depressions created in the ground surface will be filled or drained to prevent the ponding of water.</p> <p>Storage containers capable of ponding water will be either discarded after use or stored in an inverted position (care will be taken to ensure that ponding does not occur in rubbish storage areas).</p>

	<p>Any ponds and on-site excavations filled with water will be inspected for the presence of mosquito larvae at a frequency to be determined through agreement with the NT Department of Health. If larvae are detected, the Nhulunbuy Corporation and/or the Medical Entomology Branch of NT Health will be contacted for assistance in choosing a suitable method of lavaciding. If required, an adulticiding program will also be undertaken.</p> <p>Erosion and washdown practices will be controlled to prevent sediment and debris forming standing water pools in natural watercourses adjacent to the site.</p> <p>All drainage channels/spoon drains will be kept as shallow as possible to prevent ponding.</p> <p>Natural drainage lines will not be impeded by fill unless piping is installed.</p> <p>All construction workers will be educated to be especially vigilant during the high mosquito borne disease risk periods (late dry to post wet) through the use of long sleeved shirts and trousers, avoidance of going outside at sundown, and the regular use of insect repellent. Insect repellent will be provided at work sites.</p> <p>Workers will be educated about the early symptoms associated with exposure to mosquito borne arbovirus and will be instructed on the need to report any symptoms to a medical officer.</p> <p>All construction accommodation facilities will be screened and air conditioned and external street lighting will be fitted with yellow bulbs to discourage mosquitos.</p> <p>Insectocution devices will be installed in the construction worker accommodation village.</p>
<b>Monitoring</b>	<p>Alcan Gove will work with the NT Department of Health and Nhulunbuy Corporation to ensure any potential mosquito breeding areas are inspected in the period from late dry to the post wet (October – April).</p> <p>The EPCM Contractor will monitor the mosquito activity within the construction village and work areas to identify where mitigation measures are not currently successful and to determine whether laval and adult eradication programs should be implemented.</p>
<b>Reporting</b>	<p>Any significant mosquito activity will be reported to the Nhulunbuy Corporation and/or the Medical Entomology Branch.</p>

#### 25.4.3.9 Cultural Heritage Management Plan

<b>Objective</b>	To ensure that there are no detrimental effects on the region's cultural heritage values.
<b>Target</b>	No complaints about cultural heritage issues from the local indigenous community.
<b>Actions</b>	<p>Ensure that no sites of cultural heritage significance are disturbed by the construction of the expanded refinery.</p> <p>The EPCM Contractor to include cross-cultural training in the construction workforce induction program.</p>
<b>Monitoring</b>	<p>Feedback from the Traditional Owners and the Regional Community Reference Groups.</p> <p>Complaints received.</p>
<b>Reporting</b>	<p>Monitoring results will be reported to Management for their review.</p> <p>Cultural heritage issues are included in Alcan Gove's annual Environment Health Safety and Community report.</p>

#### 25.4.3.10 Social Impact Management Plan

<b>Objective</b>	<p>Minimise detrimental social and/or community impacts from the construction workforce.</p> <p>Maximise opportunities for local businesses during the construction period.</p>
<b>Target</b>	No complaints about social or community impacts
<b>Actions</b>	<p>An accommodation village will be provided for the construction workers to minimise the need for interaction with existing residents due to the following:</p> <ul style="list-style-type: none"> <li>• The accommodation village will be located on the outskirts of Nhulunbuy so that it will not be necessary for workers to travel through town on the way to work.</li> <li>• Full dining facilities will be provided reducing the need for large numbers of workers to seek food from existing retail outlets on a regular basis.</li> <li>• Bar and recreational facilities will be provided reducing the need for workers to disturb patrons at existing facilities in Nhulunbuy.</li> <li>• Basic health and medical services will be provided reducing the demand on existing facilities in Nhulunbuy.</li> </ul> <p>Buses will be provided to transport workers to the refinery each day.</p> <p>The EPCM Contractor will specify the behaviour standards expected from all construction workers. This will be formalised in a code of conduct that will be agreed to and signed by every employee and sub contractor.</p> <p>Complaints about unacceptable behaviour from construction workers will be investigated and, where necessary, appropriate action taken.</p> <p>Opportunities for construction workers to experience the natural coastal and bushland features of the region and to travel outside of the lease area will be managed through the issue of a number of recreational permits from Dhimurru to the EPCM Contractor who will make them available on a roster basis.</p> <p>Alcan Gove will continue to use a wide range of communication tools to ensure that community is kept informed of project information as the project progresses.</p> <p>Alcan Gove will maximise opportunities for the involvement of local businesses in the expansion project and for the employment of local residents.</p> <p>Alcan Gove and the EPCM Contractor will communicate the requirements of the project's employment policy to the local community, relevant organisations and businesses. This will include information on positions available, skill requirements, timing requirements and recruitment procedures.</p> <p>To support local businesses, Alcan Gove and the EPCM Contractor will commit to:</p> <ul style="list-style-type: none"> <li>• Ensuring potential local businesses are provided with relevant information in an equitable and timely manner.</li> <li>• Ensuring local businesses are provided with the opportunity to supply under the same terms and conditions as external businesses.</li> <li>• Ensuring that contracts are awarded competitively which will include due consideration of non-cost factors such as reliability, maintainability, servicing etc.</li> </ul>
<b>Monitoring</b>	Monitoring will be by stakeholder feedback and by review of complaints.
<b>Reporting</b>	All complaints received will be reported to the Site Manager. The EPCM Contractor will prepare weekly reports on social management issues and any corrective actions undertaken.

#### 25.4.3.11 Health and Safety Management Plan

<b>Objective</b>	To ensure that the project does not adversely affect the health of the employees, contractors or the general public.
<b>Target</b>	Zero reportable injuries and work-related illnesses.
<b>Actions</b>	The EPCM Contractor will be required to prepare a Health and Safety Management Plan in accordance with the requirements of Alcan Gove's EHS management system.
<b>Monitoring</b>	The health and safety performance will be monitored in accordance with the defined responsibilities of the EPCM Contractor . Regular audits will be undertaken by Alcan.
<b>Reporting</b>	All health and safety initiatives and incidents will be reported to the Site Manager in accordance with current site procedures.

#### 25.4.3.12 Incidents and Complaints Management Plan

<b>Objective</b>	To manage environmental or social incidents and complaints.
<b>Target</b>	Immediate action undertaken as soon as possible and within 24 hours of receipt of a complaint. Investigations completed within 7 days of receipt of a complaint. All corrective actions implemented by the due date.
<b>Actions</b>	All incidents and complaints about either environmental or social incidents or complaints will be managed in accordance with Alcan Gove's procedures. This procedure requires the following actions to be undertaken: <ul style="list-style-type: none"> <li>• Take any necessary immediate action</li> <li>• Report the incident or complaint (including to Government if necessary)</li> <li>• Undertake an investigation</li> <li>• Determine root causes</li> <li>• Undertake any necessary corrective or preventative actions</li> <li>• Monitor action implementation</li> <li>• Audit effectiveness of action</li> </ul>
<b>Monitoring</b>	The EPCM Contractor shall monitor compliance against the targets.
<b>Reporting</b>	All incidents and complaints are recorded in Alcan Gove's incident reporting system. Reports to be submitted to Alcan Gove management.

### 25.5 Expanded Refinery Environment Management Plan

#### 25.5.1 Responsibility

The existing environmental management procedures will apply to the operational phase of the expanded refinery. The EMP will be progressively updated to include changes associated with the expanded refinery.

Management will have overall responsibility for ensuring that all environmental commitments are met. All employees will be responsible for day-to-day implementation of the requirements of the EMP. Area Managers will report on the implementation and performance of the EMP within their areas of responsibility.

In the event of a non-compliance with the EMP, it will be the responsibility of the Area Managers to ensure appropriate investigation, reporting and implementation of corrective actions in accordance with Alcan Gove procedures.

### 25.5.2 Reporting

Reports on Alcan Gove's performance for each of the aspects of the EMP will include the following:

- Progress towards achieving targets;
- Non-compliances and results of any investigations; and
- Corrective actions.

Reports will be forwarded to Alcan Gove Management. Routine reporting to NT regulatory authorities will be via the Mining Management Plan.

### 25.5.3 Draft Expanded Refinery Environment Management Plan

#### 25.5.3.1 Waste Management Plan

<b>Objective</b>	To manage all wastes generated on site in a sustainable manner.
<b>Target</b>	Minimise waste generation. Maximise waste reuse and recycling.
<b>Action</b>	<p>A waste management plan will be implemented and will include:</p> <ul style="list-style-type: none"> <li>• opportunities and actions to be taken to implement the waste management hierarchy.</li> <li>• quantitative estimates of the expected waste streams and emissions</li> <li>• agreement with suppliers to accept the return of unused materials</li> <li>• training in waste minimisation practices</li> <li>• monitoring</li> <li>• emergency response procedures</li> <li>• reporting.</li> </ul> <p>Examples of actions to be undertaken include the following:</p> <ul style="list-style-type: none"> <li>• Minimising waste generation</li> <li>• minimise packaging and container use and maximise their return to the supplier</li> <li>• Improve design of chemical handling and storage facilities</li> <li>• Off site disposal of redundant large equipment as appropriate</li> <li>• On-site education and training of approved waste management practices.</li> <li>• Maximising waste reuse and materials reuse</li> <li>• upgrade scale handling technology for washer descaling</li> <li>• maximise the return of spilled materials to the process</li> <li>• combust waste oil in the lime kiln</li> <li>• re-use waste grease</li> <li>• remove mercury for off-site reuse</li> <li>• Maximising recycling</li> <li>• recycle waste lead acid and rechargeable batteries, scrap metals, used engine coolant and waste electrical equipment</li> </ul>

	<ul style="list-style-type: none"> <li>develop a long-term strategy for the management of waste tyres</li> <li>Treating and disposing of non-reusable and non-recyclable materials</li> <li>dispose of general process wastes to the RDA</li> <li>dispose of asbestos to the RDA</li> <li>dispose of laboratory and other chemicals off-site by licensed contractor</li> <li>dispose of electric light ballast off-site by licensed contractor as appropriate</li> </ul>
<b>Monitoring</b>	<p>The following waste streams will be measured and reported:</p> <ul style="list-style-type: none"> <li>waste generation</li> <li>waste re-use</li> <li>waste recycling</li> <li>waste treatment and disposal</li> </ul>
<b>Reporting</b>	<p>Waste management performance will be reported to Management.</p> <p>Waste management performance will be reported annually in the:</p> <ul style="list-style-type: none"> <li>Mining Management Plan, and</li> <li>Alcan Gove EHSC report</li> </ul>

#### 25.5.3.2 Air Quality Management Plan

<b>Objective</b>	To minimise emissions to air from Alcan Gove operations.
<b>Target</b>	Minimise emissions to air causing, or likely to cause adverse impact or nuisance on or beyond the boundaries of the site. These include odour, dust, smoke and fumes.
<b>Action</b>	<p>Convert refinery energy source from fuel oil to natural gas when a gas supply is secured.</p> <p>When not burning natural gas, use predictive fuel switching to manage ambient air quality.</p> <p>Install air pollution control equipment on significant new emission sources.</p> <p>Undertake periodic reviews of operating procedures to continuously improve emission performance.</p> <p>Manage fugitive dust emissions.</p>
<b>Monitoring</b>	<p>Regular assessment and monitoring of emission sources will be undertaken.</p> <p>The ambient air monitoring program will be modified to incorporate the impact of new emission sources.</p>
<b>Reporting</b>	<p>Air quality performance will be reported to Management.</p> <p>Air quality performance will be reported annually in the:</p> <ul style="list-style-type: none"> <li>Mining Management Plan, and</li> <li>Alcan Gove EHSC report</li> </ul>

#### 25.5.3.3 Greenhouse Gas Emission Management Plan

<b>Objective</b>	To minimise the generation of greenhouse gases by reducing the emissions per tonne of alumina produced.
<b>Target</b>	Meet the goals of Alcan's TARGET program and commitment to the Greenhouse Challenge Program.
<b>Action</b>	<p>Convert the energy source for the expanded refinery from fuel oil to natural gas when a gas supply is secured.</p> <p>Incorporate energy efficiency in the design and specifications for the Third Stage Expansion.</p> <p>Continuously improve the energy management program at the mine, refinery and town.</p>

	Encourage use of employer-provided bus service for all Alcan Gove employees. Investigate the implementation of a number of greenhouse gas offset projects.
<b>Monitoring</b>	The greenhouse gas emissions will be estimated by approved industry standard fuel type and usage rate calculations.
<b>Reporting</b>	Greenhouse performance will be reported to Management. Greenhouse performance will be reported annually in the: <ul style="list-style-type: none"> <li>• Mining Management Plan, and</li> <li>• Alcan Gove EHSC report.</li> <li>• Greenhouse Challenge annual report</li> </ul>

#### 25.5.3.4 Noise Management Plan

<b>Objective</b>	To minimise noise emissions from the expanded operation and to minimise noise impacts.
<b>Target</b>	The expanded refinery will be operated to be in accordance with the draft Waste Management and Pollution Control (Environmental Noise) Regulation.
<b>Actions</b>	New processing equipment will comply with appropriate EHS standards and codes. Implement noise control measures to comply with Draft NT regulation.
<b>Monitoring</b>	Noise monitoring will be undertaken upon commissioning and at two yearly intervals. Monitoring will be conducted in accordance with the Australian Standard 1055 Acoustics - Description and Measurement of Environmental Noise AS 1055.1 - 1997.
<b>Reporting</b>	Noise performance will be reported to Management. Noise performance will be reported annually in the: <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

#### 25.5.3.5 Surface Water Management Plan

<b>Objective</b>	Minimise the discharge of contaminated surface water to the surrounding environment.
<b>Target</b>	Compliance with the Waste Discharge Licence under the provisions of the <i>NT Water Act</i> . Development of discharge standards to facilitate the protection of the environmental values of Melville Bay in accordance with recommendations of Australian and New Zealand Water Quality Guidelines (ANZECC 2000).

<b>Actions</b>	<p>Examine options for reducing marine impact from Stages One and Two Evaporation plants.</p> <p>Install all new tanks to API 650.</p> <p>Install new piping to AS 4041.</p> <p>Stormwater Management</p> <ul style="list-style-type: none"> <li>• Rationalise refinery catchments to separate contaminated and non-contaminated runoff.</li> <li>• Direct contaminated runoff to secondary containment ponds.</li> </ul> <p>Primary and Secondary Containment</p> <ul style="list-style-type: none"> <li>• Install all new equipment with impervious primary bunding and secondary containment in accordance with the requirements of AS 1940:1993 and AS3780:1994.</li> <li>• Install additional primary bunding and secondary containment for current equipment.</li> <li>• Water retained in the primary bunding.to be transfer to storage tanks and use in the refining process</li> </ul> <p>Operational Controls</p> <ul style="list-style-type: none"> <li>• Implement operational controls to prevent process related spillage events.</li> <li>• Upgrade road surface and discharge controls.</li> <li>• Implement water balance operational controls to minimise the discharge of waste water to the RDA.</li> <li>• Upgrade the waste water neutralisation process to reduce the waste water inventory at the RDA.</li> </ul>
<b>Monitoring</b>	<p>Continue surface water monitoring to collect information:</p> <ul style="list-style-type: none"> <li>• To determine the characteristics and water quality trends of surface water discharges and standing waterbodies.</li> <li>• To determine the characteristics and water quality trends of the immediate receiving environment.</li> <li>• To establish internal water quality discharge standards applicable to protecting the statutory Beneficial Uses of Melville Bay, in accordance with risk assessment techniques set out in the Australian and New Zealand Water Quality Guidelines (ANZECC 2000).</li> <li>• For bi-monthly and annual reporting to DIPE as a requirement of the Waste Discharge Licence (Water Act).</li> </ul> <p>Performance checks of operational controls.</p>
<b>Reporting</b>	<p>Surface water quality will be reported to Management and in:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

### 25.5.3.6 Groundwater Management Plan

<b>Objective</b>	<p>To minimise groundwater contamination.</p> <p>To prevent impact on the receiving environment from contaminated groundwater.</p>
<b>Target</b>	<p>Minimise spills to ground.</p> <p>No measurable effect on the receiving environment.</p>
<b>Actions</b>	<p>Refinery Operational Controls</p> <ul style="list-style-type: none"> <li>Implement operational controls to prevent process related spillage events (caustic to ground).</li> </ul> <p>Stormwater Management</p> <ul style="list-style-type: none"> <li>Install impervious drainage paths to secondary containment systems</li> </ul> <p>Primary and Secondary Containment</p> <ul style="list-style-type: none"> <li>Install all new primary bunding and secondary containment with impervious lining in accordance with the requirements of AS 1940:1993 and AS3780:1994.</li> <li>Install additional primary bunding and secondary containment for current equipment.</li> </ul> <p>Groundwater Recovery Program</p> <ul style="list-style-type: none"> <li>Continued operation of the existing groundwater recovery program with regular review and expansion if required.</li> </ul> <p>Investigate, for the current RDA and decommissioned ponds:</p> <ul style="list-style-type: none"> <li>The extent and level of current contamination.</li> <li>The potential for increased migration of contamination.</li> <li>Possible methods for preventing down-gradient impacts</li> </ul>
<b>Monitoring</b>	<p>Continue groundwater sampling to collect information that can be used to determine:</p> <ul style="list-style-type: none"> <li>The characteristics and trends of contaminated groundwater migrating offsite.</li> <li>Whether any known plumes are varying in concentration or extent.</li> <li>Whether any new contaminant plumes may be forming.</li> </ul> <p>Routine performance checks and monitoring of the operation of the recovery system.</p>
<b>Reporting</b>	<p>Ground water performance will be reported to Management.</p> <p>Ground water trends will be reported annually in the:</p> <ul style="list-style-type: none"> <li>Mining Management Plan.</li> <li>Alcan Gove EHSC report.</li> </ul>

### 25.5.3.7 Water Supply Wellfield Management Plan

<b>Objective</b>	To obtain adequate water supply from the wellfield without detrimentally affecting the resource and the environment.
<b>Target</b>	Comply with the NT Controller of Water permit conditions.
<b>Actions</b>	<p>Seek amendment to the permit conditions to increase the extraction rate to 14,000 ML/year.</p> <p>Install additional wells at a location to ensure compliance with permit conditions.</p> <p>Implement a water demand management program at the refinery. This will include the following:</p> <ul style="list-style-type: none"> <li>Expansion design to minimise the requirement for fresh water in refinery maintenance and removal of spillages.</li> <li>Design to use waste water rather than fresh water wherever possible.</li> <li>Define fresh water use targets for each operational area.</li> </ul> <p>Undertake further investigations at the wellfield including:</p> <ul style="list-style-type: none"> <li>Aquifer investigation– Undertake drilling and geophysical logging in three locations south-</li> </ul>

	<p>west of the existing wellfield to confirm the local geology and hydrogeology.</p> <ul style="list-style-type: none"> <li>• Installation of sentinel bores - Convert the investigation bores into long term observation bores to monitor water levels in the region.</li> <li>• Assess the effect of mining and mine rehabilitation on aquifer recharge.</li> <li>• Evaluate the performance of the aquifer, the wellfield and associated surface water systems.</li> <li>• Recalibrate the model developed against observed measurements from the previous three years, and predict performance for the next three years with respect to the aquifer, wellfield and surrounding creeks.</li> </ul>
<b>Monitoring</b>	<p>Maintain existing monitoring program.</p> <p>Monitor the water level in all observation wells on a monthly basis.</p> <p>Record rainfall totals on a monthly basis.</p> <p>Record stream flow volumes in the following surface water systems:</p> <ul style="list-style-type: none"> <li>• Yirrkala Lagoon</li> <li>• Latram River</li> <li>• Shady Gum Creek</li> </ul>
<b>Reporting</b>	<p>Water supply wellfield performance will be reported to Management.</p> <p>Ground water trends will be reported annually in the:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul> <p>Triennial report to be submitted to the NT Controller of Water.</p>

#### 25.5.3.8 Soil Contamination Management Plan

<b>Objective</b>	<p>Prevent soil contamination.</p> <p>Manage current contaminated soil to prevent environmental impact.</p>
<b>Target</b>	<p>No new incidents of soil contamination.</p> <p>No receptor impacted by contaminated soil.</p>
<b>Actions</b>	<p>Implement operational controls to prevent process related spillages.</p> <p>Reduce the risks from known sites of ground contamination by undertaking a phased investigation as follows:</p> <ul style="list-style-type: none"> <li>• Phase 1 – contamination audit</li> <li>• Phase 2 – ground investigation and risk assessment</li> <li>• Phase 3 – remediation</li> </ul>
<b>Monitoring</b>	<p>Identification and reporting of any leaks or spills in accordance with the site's First Priority system for recording environmental and safety incidents.</p>
<b>Reporting</b>	<p>Contaminated site data will be reported to Management.</p> <p>Contaminated sites will be reported annually in the:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

### 25.5.3.9 Marine Management Plan

<b>Objective</b>	To minimise any adverse impact of the operations on the marine environment.
<b>Target</b>	Continuously improve the quality of the discharges to the marine environment.
<b>Actions</b>	<p>Implement management strategies for surface water and groundwater as outlined in Sections 25.5.3.5 and 25.5.3.6 respectively.</p> <p>Upgrade the site emergency response plan (GOVEPLAN) to accommodate the expanded operations.</p> <p>Continue to comply with all relevant port operational regulations/guidelines to reduce the risk of the establishment of marine organisms.</p> <p>Continue to formally provide advice to ship operators to comply with AQIS ballast water guidelines to reduce the risk of the establishment of marine organisms.</p> <p>Implement investigations to progressively reduce the area of Gove Harbour seafloor affected by refinery discharges.</p>
<b>Monitoring</b>	<p>Refer to Section 25.5.3.5 for water quality monitoring.</p> <p>Continue marine ecosystem assessments, including inter-tidal and fringing communities.</p> <p>Monitor for declared marine pests</p>
<b>Reporting</b>	<p>Marine conditions will be reported to Management.</p> <p>Marine trends will be reported annually in the:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

### 25.5.3.10 Terrestrial Flora Management Plan

<b>Objective</b>	<p>Minimise impacts of operations on vegetation around operational areas</p> <p>To prevent the spread of weeds</p>
<b>Target</b>	<p>No disturbance of flora outside of designated operational areas.</p> <p>No spread of any current weed species or new introductions as a result of Gove Operations.</p>
<b>Actions</b>	<p>Avoid non-essential entry into undisturbed vegetation areas.</p> <p>Install mist eliminators on all new cooling towers to minimise potential effects on surrounding vegetation.</p> <p>Continue quarantine practices to minimise the risk of weed outbreaks/plant pathogens.</p> <p>Continue the current weed control program. Any source of any new infestation will be investigated and the most appropriate control technique will be implemented.</p>
<b>Monitoring</b>	Monitoring of vegetation health and weed infestation will be undertaken.
<b>Reporting</b>	<p>Flora disturbance will be reported to Management.</p> <p>Flora trends will be reported annually in the:</p> <p>Mining Management Plan</p> <p>Alcan Gove EHSC report</p>

### 25.5.3.11 Terrestrial Fauna Management Plan

<b>Objective</b>	To minimise the impact of operations on fauna and habitats adjacent to operational areas. To prevent the spread of feral pests.
<b>Target</b>	Minimise the impact of the operation on the local fauna.
<b>Actions</b>	Avoid non-essential entry into undisturbed vegetation areas. Continue quarantine practices to minimise the risk of feral species introduction. Continue with the eradication of all Yellow Crazy Ants within the lease and surrounding areas in partnership with Dhimurru. Inspect operational areas bi-annually for feral animal habitat and, if found, manage as required.
<b>Monitoring</b>	Monitoring for evidence of habitat disturbance or feral pest presence to be combined with the vegetation monitoring program.
<b>Reporting</b>	Habitat disturbance or feral pest presence will be reported to Management and annually in the: <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

### 25.5.3.12 Mosquito Management Plan

<b>Objective</b>	To prevent the occurrence of potential mosquito breeding sites and the presence of adult mosquitoes.
<b>Target</b>	No mosquito breeding sites created in operational areas.
<b>Actions</b>	Any depressions created in the ground surface will be filled or drained to prevent the ponding of water. Storage containers capable of ponding water will be either discarded after use or stored in an inverted position (care will be taken to ensure that ponding does not occur in rubbish storage areas). Any ponds and on-site excavations filled with water will be inspected for the presence of mosquito larvae at a frequency to be determined through agreement with the NT Department of Health. If larvae are detected, the Nhulunbuy Corporation and/or the Medical Entomology Branch of NT Health will be contacted for assistance in choosing a suitable method of lavaciding. If required, an adulticiding program will also be undertaken. Erosion and washdown practices will be controlled to prevent sediment and debris forming standing water pools in natural watercourses adjacent to the site. All drainage channels/spoon drains will be kept as shallow as possible to prevent ponding. Natural drainage lines will not be impeded by fill unless piping is installed. All workers will be educated to be especially vigilant during the high mosquito borne disease risk periods (late dry to post wet) through the use of long sleeved shirts and trousers, avoidance of going outside at sundown, and the regular use of insect repellent with a high DEET. Insect repellent will be provided at work sites. Workers will be educated about the early polyarthritic symptoms associated with exposure to mosquito borne arbovirus and will be instructed on the need to report any symptoms to a medical officer.
<b>Monitoring</b>	Alcan Gove will work with the NT Department of Health and Nhulunbuy Corporation to ensure any potential mosquito breeding areas are inspected in the period from late dry to the post wet (October – April).
<b>Reporting</b>	Any significant mosquito activity will be reported to the Nhulunbuy Corporation and/or the Medical Entomology Branch of the NT Department of Health.

### 25.5.3.13 Aesthetics Management Plan

<b>Objective</b>	Minimise the visual impact of the refinery expansion on surrounding areas.
<b>Target</b>	No unacceptable visual impacts
<b>Actions</b>	<p>Provide additional landscaping/planting along the northern side of Melville Bay Road, adjacent to the refinery, to provide for additional screening of the refinery.</p> <p>Provide additional landscaping/planting along the southern side of Melville Bay Road, in the area north of the RDA, to provide for additional screening of the RDA.</p> <p>Implement a landscaping plan that:</p> <ul style="list-style-type: none"> <li>Identifies and incorporates plant species with the potential to effectively screen the extension within a short time period.</li> <li>Utilises indigenous species, preferably those that are endemic to the area.</li> <li>Develops and implements a maintenance plan for the planting area.</li> </ul> <p>Progressively revegetate the filled and decommissioned ponds at the RDA as they become available.</p>
<b>Monitoring</b>	Regular inspection of the health and vigour of the landscaping/planting areas along Melville Bay Road.
<b>Reporting</b>	<p>Annual reporting on improvements to visual amenity and landscaping improvements in</p> <ul style="list-style-type: none"> <li>Mining Management Plan</li> <li>Alcan Gove EHSC report</li> </ul>

### 25.5.3.14 Lighting Management Plan

<b>Objective</b>	To minimise the impact of lighting on the surrounding environment.
<b>Target</b>	New lighting will be designed to comply with AS 4282:1997.
<b>Actions</b>	<p>Select new lights and install to minimise light spill.</p> <p>Investigate and install light spill mitigation measures for Galupa.</p>
<b>Monitoring</b>	Conduct a post-expansion lighting survey.
<b>Reporting</b>	Results of lighting survey will be reported in the Mining Management Plan.

### 25.5.3.15 Cultural Heritage Management Plan

<b>Objective</b>	To ensure that there are no detrimental effects on the region's cultural heritage values.
<b>Target</b>	Cultural heritage values understood and protected by Alcan Gove.
<b>Actions</b>	<p>No unauthorised disturbance of sites of cultural heritage significance by the operation of the expanded refinery.</p> <p>Continue the cross-cultural workshop program for Alcan Gove employees.</p> <p>Continue to support selected local indigenous cultural activities.</p> <p>Continue to consult with the indigenous community.</p> <p>Continue to support the Regional Community Reference Group.</p>
<b>Monitoring</b>	Review feedback from the Traditional Owners and the Community Reference Groups and related Government/Non-Government Organisations.

<b>Reporting</b>	<p>Cultural Heritage issues will be reported to Management.</p> <p>Cultural Heritage issues will be reported annually in the:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>
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#### 25.5.3.16 Social and Community Management Plan

<b>Objectives</b>	Maximise beneficial social and/or community effects from the operations.
<b>Targets</b>	No complaints about social or community impacts
<b>Actions</b>	<p>Continue to support the YNOTS training school for local Aboriginal people.</p> <p>Continue to support Yirrkalā Dhanbul Landcare to develop a native plant and seed business.</p> <p>Continue to actively work with Aboriginal and business organisations to help develop sustainable Aboriginal-owned businesses in the region.</p> <p>Continue to use a wide range of communication tools to ensure that community is kept informed of Alcan Gove's operations.</p> <p>Maximise opportunities for the involvement of local businesses in the Alcan Gove operations and for the employment of local residents.</p> <p>Continue to provide support for local community organisations.</p>
<b>Monitoring</b>	Review feedback from the Traditional Owners, the Community Reference Groups and others.
<b>Reporting</b>	<p>Community issues will be reported to Management.</p> <p>Community issues will be reported annually in the:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

#### 25.5.3.17 Occupational Health and Safety Management Plan

<b>Objective</b>	To ensure that the operation does not adversely affect the health of the employees, contractors or the general public.
<b>Target</b>	Zero reportable injuries and work-related illnesses.
<b>Actions</b>	Update the Health and Safety Management Plan in accordance with the requirements of Alcan Gove's EHS management system to incorporate the expanded refinery.
<b>Monitoring</b>	The health and safety performance will be monitored in accordance with the Alcan Gove procedures.
<b>Reporting</b>	<p>Health and Safety performance will be reported to Management.</p> <p>Health and Safety trends will be reported annually in the:</p> <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>

### 25.5.3.18 Incidents and Complaints Management Plan

<b>Objective</b>	To manage environmental or social incidents and complaints.
<b>Target</b>	Immediate action undertaken as soon as possible and within 24 hours of receipt of a complaint. Investigations completed within 7 days of receipt of a complaint. All corrective actions implemented by the due date.
<b>Actions</b>	All incidents and complaints about either environmental or social incidents or complaints will be managed in accordance with Alcan Gove's procedures. This procedure requires the following actions to be undertaken: <ul style="list-style-type: none"> <li>• Take any necessary immediate action.</li> <li>• Report the incident or complaint (including to Government if necessary).</li> <li>• Undertake an investigation.</li> <li>• Determine root causes.</li> <li>• Undertake any necessary corrective or preventative actions.</li> <li>• Monitor action implementation.</li> <li>• Audit effectiveness of action.</li> </ul>
<b>Monitoring</b>	Monitor compliance against the targets.
<b>Reporting</b>	Incidents and complaints will be reported to Management. Incident and complaint trends will be reported annually in the: <ul style="list-style-type: none"> <li>• Mining Management Plan</li> <li>• Alcan Gove EHSC report</li> </ul>