



Bell Bay Pulp Mill Project

Construction Environmental Management Plan

BBA-PLN-1000-1400-0001-F-00

Rev	Date	Prepared by	Reviewed by	Approved by	Remarks
A	Sept. 2006	JL			Issued for internal review.
B	Nov 2006	JL	RVD		Issued for internal review.
C	18 Apr 2007	RVD	IW		Issued for internal review.
D	8 May 2007	IW	RVD	JC	Issued for DTAE review.
E	31 Oct 2007	IW	JD	JC	Revised for submission to DTAE following auditor's comments
F	30 Jan 2008	IW	JD	CF	Revised for submission to DTAE following revisions to ENPs and OCOs

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Annexures – Environmental Programs, Operational Controls, Checklists and Monitoring

Title	ENP	OCO	CKL
Erosion & Sediment Control	BBA-ENP-1000-1400-0001	BBA-OCO-1000-1400-0001	BBA-CKL-1000-1400-0001
Soil & Water Management	BBA-ENP-1000-1400-0002	BBA-OCO-1000-1400-0002	BBA-CKL-1000-1400-0002
Contaminated Soil Management	BBA-ENP-1000-1400-0003	BBA-OCO-1000-1400-0003	BBA-CKL-1000-1400-0003
Acid Sulphate Soils Management	BBA-ENP-1000-1400-0004	BBA-OCO-1000-1400-0004	BBA-CKL-1000-1400-0004
Site Preparation & Rehabilitation	BBA-ENP-1000-1400-0005	BBA-OCO-1000-1400-0005	BBA-CKL-1000-1400-0005
Fire Management	BBA-ENP-1000-1400-0006	BBA-OCO-1000-1400-0006	BBA-CKL-1000-1400-0006
Storage & Use Of Hazardous Materials	BBA-ENP-1000-1400-0007	BBA-OCO-1000-1400-0007	BBA-CKL-1000-1400-0007
Air Quality Management	BBA-ENP-1000-1400-0008	BBA-OCO-1000-1400-0008	BBA-CKL-1000-1400-0008
Trenching & Pipeline Management	BBA-ENP-1000-1400-0009	BBA-OCO-1000-1400-0009	BBA-CKL-1000-1400-0009
Noise & Vibration Control	BBA-ENP-1000-1400-0010	BBA-OCO-1000-1400-0010	BBA-CKL-1000-1400-0010
Flora & Fauna Management	BBA-ENP-1000-1400-0011	BBA-OCO-1000-1400-0011	BBA-CKL-1000-1400-0011
Weed & Pathogen Management	BBA-ENP-1000-1400-0012	BBA-OCO-1000-1400-0012	BBA-CKL-1000-1400-0012
Cultural Heritage Management	BBA-ENP-1000-1400-0013	BBA-OCO-1000-1400-0013	BBA-CKL-1000-1400-0013
Waste Management	BBA-ENP-1000-1400-0014	BBA-OCO-1000-1400-0014	BBA-CKL-1000-1400-0014
Light Escape Control	BBA-ENP-1000-1400-0015	BBA-OCO-1000-1400-0015	BBA-CKL-1000-1400-0015
Spill Management	BBA-ENP-1000-1400-0016	BBA-OCO-1000-1400-0016	BBA-CKL-1000-1400-0016

1.0 GENERAL

1.1 Purpose

Gunns have formed the Bell Bay Alliance (BBA) with the John Holland-Macmahon Joint Venture to carry out the design and construction of the Civil and Structural components of the Bell Bay Pulp Mill and associated infrastructure components. The contractual relationship between the parties is set out in a Project Alliance Agreement (PAA).

The purpose of this Construction Environmental Management Plan (CEMP) is to ensure that the management of the construction works will meet the relevant requirements of the Tasmanian and Commonwealth Governments' Approval and the Draft Integrated Impact Statement (IIS) Commitments.

The CEMP is issued with the authority of the Alliance Manager who will review and authorize all changes to the CEMP.

The development and implementation of the CEMP is the responsibility of the Project Environmental Manager. The Environmental Objectives and Targets are set out in Section 3.0.

This Environmental Management Plan (CEMP) has been developed within the framework of AS/NZS ISO 14001:2004 'Environmental management systems – Requirements' specific to the requirements of the contract. The Environmental Management System (EMS) forms part of the Alliance Integrated Management System (IMS) and uses a 'Project EMS cycle'. The Alliance IMS system is based on a process model approach structured along the project delivery process cycle

The plan establishes the environmental management controls to be followed by Bell Bay Alliance (BBA) and its consultants and subcontractors in carrying out the Project.

Where an ambiguity is detected between the requirements in this Environmental Management Plan and the Project Alliance Agreement (PAA), then the requirements of the Agreement will take precedence unless such precedence compromises an environmental outcome.

1.2 Scope

This CEMP applies to the design, pre-construction and construction of all works to be undertaken for the construction of the Bell Bay pulp mill by the Bell Bay Alliance (BBA).

1.3 Application

The activities of any person or company contracted to BBA in any way for the design, construction and commissioning phases of the Project are covered by this CEMP.

All personnel shall comply with the requirements of this CEMP.

1.4 Interface with Other Plans

This plan forms part of an integrated set of management plans developed for all the key areas of the Project.

The relationship and hierarchy of documentation is described in more detail in the Design and Construction Management Plan.

The CEMP interfaces with Bell Bay Pulp Mill “Draft Integrated Impact Statement” which details the environmental requirements, obligations and commitments for the project. The allocation of environmental responsibilities between Gunns and the BBA is set out in the contract documents and transferred to the Obligations Register at Appendix F.

This plan forms an integral part of the overall BBA Management System.

1.5 Plan Development

Without limiting the Bell Bay Alliance's obligation to notify any revisions or amendments to the CEMP to the State, and Bell Bay Alliance's overall responsibility for the CEMP, any revisions or amendments to this CEMP, and subsidiary Environmental Programs and Process Procedures are subject to the authorisation process set out in the table below.

Action	Responsibility	Initial Issue	Major Revision	Minor Revision
Consultation with relevant stakeholders	Environmental Manager	✓	✓	✓
Preparation	Environmental Manager	✓	✓	✓
Review	Relevant Leadership Team Members	✓	✓	✗
Review and Approval	General Manager – Stakeholder Relations	✓	✓	✓
Approval	Managing Director	✓	✓	✗

The Environmental Manager has identified the relevant stakeholders for each component of the CEMP and is responsible for consultation with these stakeholders and consideration of their views in the development of the CEMP.

The program for the development of revisions, amendments and additions to the CEMP shall take into account the time required for this authorisation process, prior to commencement of any related work activities.

To facilitate approvals from relevant authorities, comments have been sought in relation to drafts of this plan from the Tasmanian Department of Tourism, Arts and the Environment (DTAE). DTAE has responded with comments, including those from other agencies, in particular the Department of Primary Industries and Water (DPIW).

Their comments (as agreed) have been incorporated into the CEMP. The CEMP incorporates the following subsidiary documents:

- Environmental Programs (ENP) to manage significant environmental risks requiring detailed environmental management.
- Operational Controls (OCOs) that detail the control activities to be applied to address the identified significant environmental risks.
- Site Environmental Plans (SEPs) prepared to address particular activities or specific areas.
- Process Procedures for specific activities that have associated environmental risks and corresponding controls.
- Process Procedures and Project Forms specific to the implementation of the CEMP, such as process procedures and checklists to carry out environmental monitoring.
- Programs for Monitoring, Inspection Auditing and Reporting.
- External documents including Consultant and Subcontractor Environmental Management Plans.

The CEMP incorporates all relevant Environmental Programs (ENP), Operational Controls, Site Environmental Plans (SEP) and references all relevant Process Procedures (PP) identified as required for early works if and where they are required. All of these ENP, OCO, SEP and PP shall be prepared, authorised by the Managing Director or his nominated delegate and issued prior to works commencing.

2.0 PROJECT DESCRIPTION

2.1 Environmental Context

Some of the key environmental issues relevant to the Project are listed below. (This list is not intended to be exhaustive but to give an overview of the key values and issues (aspects and impacts). A fuller analysis of the environmental aspects relevant to the Project is included in the Risk (Aspects) Register in Appendix G.

Key issues include:

- Construction activity will occur 24 hours a day, seven days a week for an estimated 26 months. During the initial six months earthworks phase, blasting may be undertaken up to twice daily, at notified times between 9 am and 3 pm.
- Earthworks may be a source of noise during the construction phase. The primary noise impact may result from initial construction activity (clearing, haulage, blasting, crushing, pile driving), and mill construction. Given the proximity of residences to the mill site, there is potential for noise impact. The impact will be mitigated to some extent, but noise from activities such as blasting and pile driving will be apparent. Some residents in the Rowella area, particularly those closest to the pulp mill site may experience noise impacts through the construction period, particularly in the first six months. Construction noise will have a moderate negative impact.
- The pipeline infrastructure passes adjacent to a number of either single dwellings or residential clusters, and temporary noise intrusion is possible. The CEMP will mitigate this to all practical extents and as a consequence noise disturbance from pipeline construction activities will be acceptable and short term.
- The civil earthworks on the mill site and along the pipeline routes could create nuisance dust plumes to Rowella residents, but less so to other residents along the linear infrastructure route. Management measures under the CEMP will minimise the impacts of this.
- The pulp mill construction, especially the earthworks, will be visible from Rowella and from Beauty Point, and will have a moderate visual impact, with some specific locations experiencing a high visual impact.
- Clearing for the water supply and effluent pipelines will have localised impacts in places. The construction phase impacts from the proposed pipelines will create a noticeable visual impact in some areas. These will be short term, as the pipeline will be buried along its complete length and all easements will be rehabilitated consistent with surrounding land uses. Much of the alignments will not be visible to the public as they will be on private land with a limited number of potential viewers. Visual impacts associated with pipeline construction will therefore be minor.

- The construction of two major pipelines will necessarily cross numerous minor watercourses. The installation of this infrastructure will be undertaken by numerous contractors who will be in control of individual work sites. A number of contractors may be used to install various sections of the pipeline and systematic processes will need to be implemented to ensure a consistent outcome that satisfies the CEMP. These processes will include appropriate water quality monitoring, with the results to be provided to BBA.
- The installation of infrastructure for the project will variously disturb a range of habitats or cultural heritage sites of varying sensitivities and values. Aboriginal artefacts or scatters have been identified within the pulp mill site and along pipeline corridors. The mill footprint and the effluent pipeline corridor have been modified to avoid the most significant artefacts discovered. The impacts of construction activities on Aboriginal heritage will be managed in consultation with the Aboriginal Heritage Office and the Tasmanian Aboriginal Land and Sea Council.
- Several historic European heritage sites were found on the pulp mill site. The footprint of the mill has been changed during the preliminary planning stage to ensure that most sites are avoided. Only one site of minimal significance will be directly impacted by the project. Impacts on sites of historic heritage are considered minor.
- Impacts on surface and groundwater systems will occur as a result of earthworks and development of the mill. Such impacts will be managed through the implementation of appropriate strategies, as part of the CEMP, and design elements, including an integrated storm water system for the mill site. Based on the implementation of identified management strategies, potential impacts on water quality and hydrology are considered insignificant.
- The installation of infrastructure in the Tamar Estuary and Bass Strait must minimise impacts on aquatic flora and fauna.
- A significant area of habitat will be lost through clearing the pipeline easements for the water supply and effluent pipelines. Potential impacts have been reduced to all practical extents through route optimisation.
- The shore crossing for the effluent pipeline is the most ecologically diverse area along the pipeline alignment and will experience a significant level of disturbance. Small but significant areas of native vegetation will be lost through clearing the pipeline easement and shoreline crossing. A Dune Crossing SEP addresses the specific issues associated with the construction of the effluent pipeline through this area.
- An increase of between 800 and 1,740 persons to the local population of George Town, Beaconsfield, Beauty Point and surrounds represents a significant and concentrated addition to the population (around 17%). The integration of this population into the local community will have significant positive and negative effects during the construction phase.
- During the construction phase of the mill, a localised increase in traffic movements (both light and heavy vehicles) will result on the East Tamar Highway between the site's access and George Town. Nonetheless, an acceptable level of service will be maintained for this road, although some reduction in level of service can be expected for the pulp mill access road at its junction with the East Tamar Highway. Measures will be taken to minimise the impacts at this intersection

2.2 Project Environmental Delivery Strategy

The Bell Bay Alliance will implement environmental management controls that will deliver outstanding environmental performance throughout the development and delivery of the Project.

This CEMP will be reviewed prior to the commencement of each phase of the Project to confirm that environmental risks relevant to each project phase have been addressed. The program for review will take into account the time required to develop, review and authorise a revised CEMP.

2.2.1 Design and Pre-construction Phase

The following will be implemented during the Design and Pre Construction Phase:

- Procurement documentation and evaluation that incorporates the Environmental Requirements of the Project.
- Design solutions that minimise the potential for environmental harm and maximise sustainable outcomes.
- Licences and permits obtained for all activities in an area as required prior to commencement of construction in that area.
- The design consultants will be fully briefed on the special requirements for environmental management including:
 - Sustainable design
 - Avoiding native vegetation wherever practicable
 - Avoiding Aboriginal and post settlement heritage sites wherever practicable
 - Best practice design of stormwater drainage facilities
 - Reinstatement of natural topography and flow regime for all stream crossings of the pipelines.
 - Development of construction techniques that minimise the extent and degree of environmental harm caused by construction activities.
 - Development of project environmental standards that maximise the environmental performance of the Project.
 - Value engineering inputs that maximise the environmental performance of the Project during construction and operation.
 - Review of the design against environmental design criteria and Environmental Requirements.
 - Detailed risk assessment and development of management controls for the Construction Phase.

2.2.2 Construction Phase

The following will be implemented during the Construction Phase:

- Implementation of the environmental design developed during the Design and Pre-Construction Phase.
- Clear environmental management standards set, communicated and enforced for personnel, consultants, subcontractors and suppliers.
- Clear environmental accountabilities and responsibilities established for all key management positions.
- Inspection, monitoring, auditing and reporting to establish performance against the requirements of this CEMP.
- All personnel will be made aware of their environmental responsibilities in so far as they are relevant to the work they are undertaking.

2.2.3 Commissioning Phase

The following will be implemented during the Commissioning Phase:

- A Completion and Commissioning Plan will be developed with a simultaneous and integrated review of the CEMP to update the CEMP to reflect the completion and commissioning risks and requirements.
- Environmental risks associated with the higher than normal risk of equipment failure and design and construction errors will be identified and managed.
- Specific environmental risks associated with commissioning will be identified and addressed.
- Changeover of environmental roles, responsibilities and accountabilities from the Construction Team to the Operations Team will be managed effectively.

2.2.4 Defects Liability Period

The following will be implemented during the Defects Liability Period:

- All personnel will be made aware of their environmental responsibilities and will be competent in their environmental roles.
- Inspection, monitoring, auditing and reporting will be in place to establish performance against the requirements of this CEMP and the Completion and Commissioning Plan.

3.0 POLICY, OBJECTIVES, TARGETS AND OBLIGATIONS

3.1 Policy

The Bell Bay Alliance's Environmental Policy is included in Appendix A.

3.2 Objectives and Targets

Objectives for environmental management during the Project include:

- Through a comprehensive community consultation program, design and construct the Bell Bay Pulp Mill to the reasonable satisfaction of key stakeholders and the wider community, in conformity with the Project Approval.
- To complete the Bell Bay Pulp Mill construction with no statutory environmental infringements or breach of conditions of Approvals.
- To design and construct the Bell Bay Pulp Mill in an environmentally sustainable manner and to minimise environmental harm caused by construction activities.
- To achieve best practice environmental management on the Project as measured by internal and external audit results.

Performance targets for each of these objectives will be set out in an “Environmental Objectives and Targets Register” attached as Appendix E.

3.3 Obligations

A Register of Environmental Obligations is summarised in Appendix F. The Register includes key performance indicators for each obligation, together with the responsible project team member for each Environmental Obligation. The Obligations Register is maintained in the BBA document management system. Due to its size, it is not incorporated into this Environmental Management Plan.

The Obligations Register is maintained electronically and is available for inspection.

4.0 REGULATORY AND CONTRACTUAL REQUIREMENTS.

4.1 Legislation

An “Environmental Legislation Register” is attached at Appendix B. It provides a summary of the relevant legislation and key statutory requirements of the Project, and will be available through the project information system.

4.2 Approvals, Licences and Permits

The Project Works will require a substantial number of approvals, licences and permits to allow the works to be constructed, commissioned and finally put into operation. An “Approval Matrix” based on Appendix C will set out the approvals, licences and permits required.

Approvals, licences and permits obtained will be registered in an “Environmental Licences Register” attached at Appendix D as they are acquired. The Environmental Manager will be responsible for the maintenance of this register.

5.0 LEADERSHIP, ORGANISATIONAL STRUCTURE AND RESPONSIBILITIES

5.1 Leadership

Management at all levels and supervisory personnel will lead by example and set the highest standards for environmental management. They will act in a timely manner to correct any nonconforming conditions or behaviours and promote environmental awareness, individual environmental responsibility (meaning ownership) and continual improvement at every opportunity.

5.2 Organisational Structure

Gunns and the John Holland-Macmahon Joint Venture have formed the Bell Bay Alliance (BBA) to carry out the design and construction of the civil and structural components of the Bell Bay Pulp Mill and associated infrastructure components. The contractual relationship between the parties is set out in the Project Alliance Agreement (PAA).

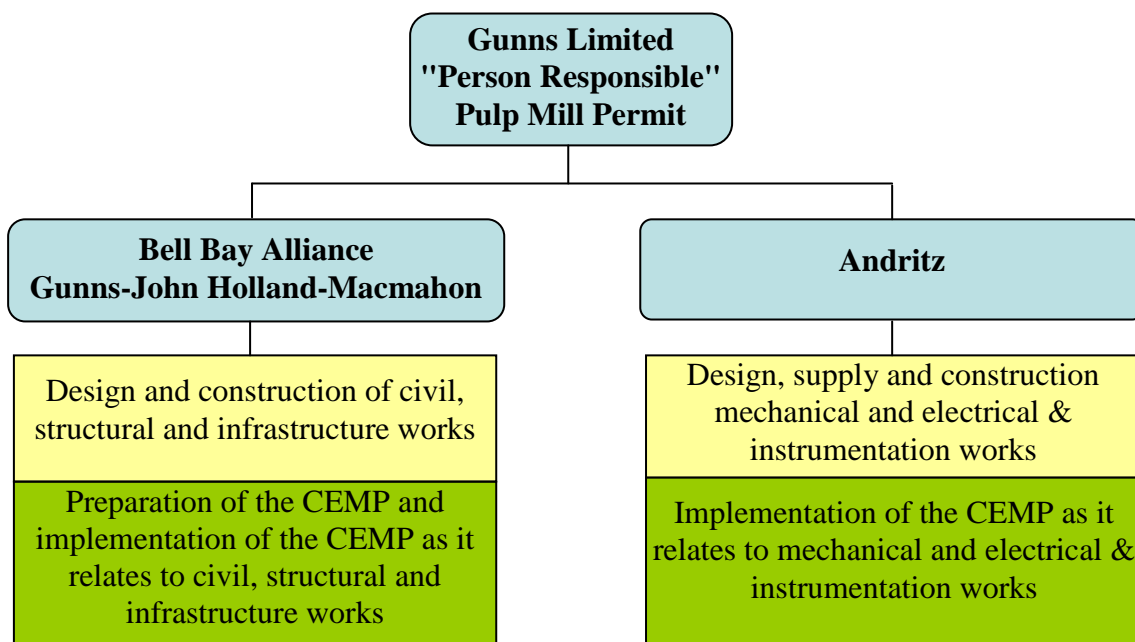
Gunns has delegated the preparation and implementation of the CEMP and the addressing of associated permit conditions to BBA. However, Gunns remain responsible for satisfying the permit conditions.

Direct accountability for delivering environmental performance during construction is from the BBA Alliance Manager to the Alliance Leadership Team (ALT). The ALT comprises senior management from Gunns, John Holland and Macmahon.

The BBA Alliance Manager has delegated authority for the implementation of the CEMP to the Project Environmental Manager who will co-ordinate all environmental activities with the BBA Stakeholder Relations Manager and the Gunns Environmental Management Representative. An Environmental Officer will be appointed to each section team to carry out the environmental responsibilities.

Current expectations are that mechanical construction of the mill plant will be undertaken by Andritz. Those construction activities will also fall within the ambit of this CEMP where they may impact on the environment.

The Project Environmental Management structure is set out below.



5.3 Responsibilities

5.3.1 Project Team

Specific environmental responsibilities will be allocated in position descriptions.

The BBA Managing Director, Leadership Team and Operations Management, together with the Environmental Team have the following key responsibilities in relation to environmental management:

- Ensure that construction is carried out in accordance with the requirements of the Project Alliance Agreement (PAA).
- Ensure the implementation of the Bell Bay Alliance's Environmental Policy, consistent with Gunns' Environmental Sustainability Policy.
- Establish and promote a culture that incorporates Gunns' Company Values, including Sustaining the Environment.
- Ensure that construction is carried out in an environmentally sustainable way, in accordance with the design.
- Develop, implement and maintain an environmental management system in accordance with the requirements of ISO 14001.
- Develop, maintain and implement the CEMP in accordance with the construction contract and the environmental documents.
- Ensure that construction environmental risks are managed in accordance with the Construction Environmental Management Plan.
- Ensure that the environmental obligations and requirements are included in the service agreements and subcontracts as standard requirements.

- Provide subcontractor personnel with adequate plans and procedures for the management of specific environmental elements during the works, so that the works are carried out in compliance with environmental legislation and regulations and this CEMP.
- Provide adequate resourcing of appropriately skilled and experienced personnel for the project.
- Ensure that environmental roles, responsibilities and accountabilities are incorporated into position descriptions and that performance is regularly reviewed.
- Ensure that adequate systems are in place and the community issues, complaints and comments on the Project are handled in a timely manner.
- Ensure adequate attention and resourcing to training of personnel in respect of the environmental protection measures and responsibilities.
- Monitor and report on performance.

5.3.2 Subcontractors

Subcontractors will:

- Where required, at the direction of the Project Manager in consultation with the Environmental Manager, prepare a subcontract-specific Environmental Management Plan, for the scope of works to be undertaken for the Project. That Plan must comply with the requirements and be consistent with this CEMP.
- Not commence works on site until their construction methods statement has been approved by the BBA's Environmental Manager.
- Develop an organisation structure to ensure adequate responsibility for, attention to and resourcing of environmental works as part of the subcontract works.
- Ensure that the subcontractor team members are aware of and fully comply with the requirements of this CEMP and their own subcontractor Environmental Management Plan.
- Undertake relevant environmental monitoring in accordance with the required scope of works to be undertaken and the requirements of their own Environmental Management Plan as applicable.
- Undertake site audits and environmental performance reviews of the works as applicable.
- As applicable update, revise and implement their contract-specific Environmental Management Plan in accordance with the revised schedule of works, site layout and environmental risk requirements.

5.3.3 Specialist Environmental Consultants and Subcontractors

The key roles and responsibilities of specialist consultants and subcontractors engaged for specialist environmental support roles include:

- Aboriginal heritage consultant to assist with Aboriginal Liaison and archaeological issues.
- Archaeologist to provide advice relating to historic sites.
- Flora surveys and assessment of "Net Gain" requirements.
- Collection of local provenance seed and propagation in accordance with the Site Preparation and Rehabilitation Environmental Program and associated Operational Controls and Site Environmental Management Plans.
- Water quality monitoring program - sampling and analysis.

- Air quality monitoring program.
- Noise monitoring.
- Others as required during the course of the Project.

6.0 RISK MANAGEMENT

6.1 Environmental Risks

Environmental risks associated with the Project have been identified for all phases of the Project using the methodology described in AS/NZS 4360:2004 Risk Management. Risks are identified and evaluated both globally and geographically.

The current Environmental Risk Register for the Project is included at Appendix G.

The Environmental Risk Register will be continually updated to reflect Project developments. The Environmental Risk Register will be reviewed on a needs basis, but at least quarterly, as determined by the Environmental Manager having regard for the level of changing circumstances of the Project.

The environmental aspects associated with any variation in scope will be identified and included in the Environmental Risk Assessment.

Temporary works, changes in design or changes in work methods that may arise during the course of the Project and that may affect the findings of the significant environmental impacts assessment will be included and/or reassessed in the Environmental Risk Register.

6.2 Job Safety and Environmental Analysis

Job Safety and Environmental Analyses (JSEA) based on BBA-MPR-1000-1500-0004 "Preparation and Use of JSEAs" will be completed for:

- Tasks for which a Process Procedure has not been prepared but which have the potential to harm the environment and/or impact on the community and the workforce.
- Subcontractors will be required to complete JSEAs for the critical tasks associated with their contract / subcontract.
- All JSEAs will take account of the requirements of this CEMP.

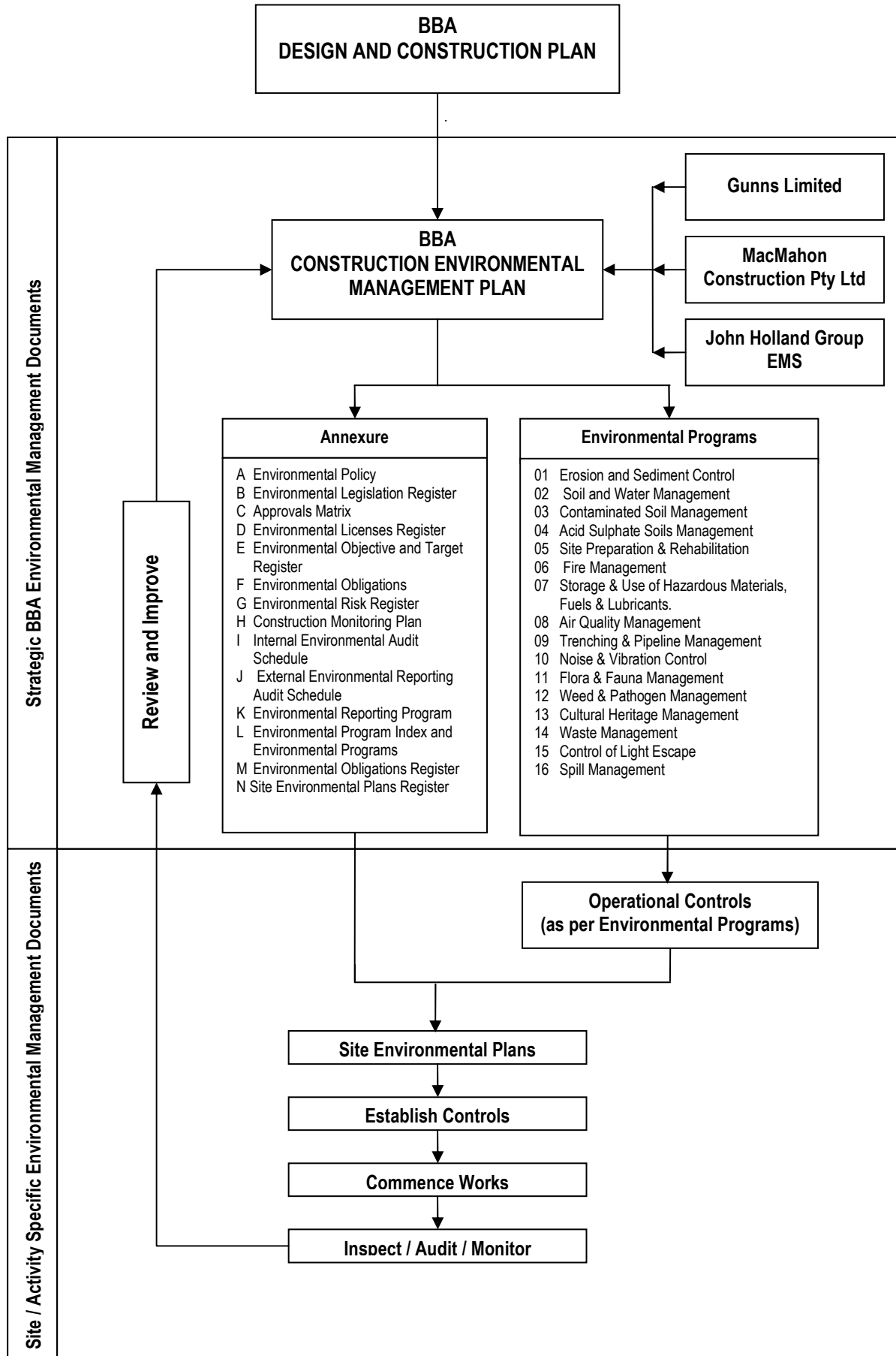
7.0 ENVIRONMENTAL MANAGEMENT SYSTEM

7.1 Environmental Management System

An index to the Procedures referenced in this CEMP is available on inCITE. Copies of the Index and Process Procedures can be obtained from inCITE or the Systems Manager or Environmental Manager.

7.2 Environmental Management Plan

Key aspects of the proposed EMS are summarised in this Construction Environmental Management Plan (CEMP). The structure of the CEMP is shown in the following diagram.



7.3 Environmental Programs

Environmental Programs (ENP) have been developed for all significant environmental risks. An index of the proposed Environmental Programs can be found in “Environmental Program Index”, attached as Appendix L.

7.4 Operational Controls

Operational Controls (OCO) are incorporated as an integral part of Environmental Programs. They detail the operational controls required globally across the project to achieve the objectives and targets set out in the Environmental Programs. They are structured to address the following as applicable:

- Induction and Training.
- Design.
- Pre-Construction.
- Construction.
- Post-Construction.
- Evaluating Performance.

7.5 Site Environmental Plans

Site Environmental Plans (SEPs) detail practical environmental management measures to be implemented at specific worksites to minimise potential impacts of construction activity on the environment and community. They are designed to provide more site specific detail than is included in the various Environmental Programs and the Operational Controls. SEPs are intended to be used at the site level and be displayed within the site office.

SEPs will be developed and approved in accordance with the procedure BBA-G-PPR-EN-0001 “Site Environmental Plan Preparation”. The development of a SEP will be risk based as set out in BBA-MPR-1000-1400-0001.

A register of SEPs is provided in Appendix N.

7.6 Plan of Environmental Controls

Plans of Environmental Controls (PEC) may be used as an adjunct to a SEP. They will detail the environmental controls proposed for an area and may be as formal or as informal as deemed applicable by the SEO. PEC will be particularly applicable where site conditions are changing rapidly and for very small areas.

8.0 WORK AREAS

For the purposes of Project delivery, the Project is divided into a number of discrete sections, as shown in the Design and Construction Management Plan.

9.0 PROCUREMENT

All procurement shall be conducted in accordance with BBA-MPR-1000-2100-0002 “Procurement - General”, BBA-MPR-1000-2100-0003 “Letting of Major Supply/Subcontract Packages” and BBA-MPR-1000-1500-0013 “Subcontractor Management – HSE Selection Requirements”.

Relevant requirements of the CEMP, including relevant Environmental Programs, shall be provided to tenderers.

A record of the relevant requirements of the CEMP and the Environmental Programs provided to tenderers shall be maintained in the project document and records management system.

The Environmental Manager shall assist in the environmental evaluation required during procurement processes.

10.0 SUBCONTRACTOR MANAGEMENT

All consultants, suppliers and subcontractors are required to operate within the requirements of this CEMP.

Based on a task related risk assessment, the Environmental Manager shall establish whether a supplier / subcontractor is required to develop a project-specific CEMP, which will be required to comply with this CEMP

The risk assessment shall consider:

- The potential environmental impacts of the Subcontractor’s activities.
- The environmental sensitivity of the area(s) in which the Subcontractor will be working.
- The nature and scope of the Subcontractor’s activities.
- The scale of the Subcontractor’s activities.
- The degree of autonomy under which the Subcontractor will be working.
- The Subcontractor’s capacity to manage its own environmental performance effectively.
- The Subcontractor’s previous environmental performance.

Suppliers will normally not be required to prepare a CEMP. However, preference will be given to those that operate an Environmental Management System and which includes objectives for sustainable development and waste management.

Subcontractors will normally be required to prepare and implement a CEMP except where the risk of environmental harm from the subcontractor's activities is assessed as significant.

The subcontractor's CEMP shall address the specific section of the Project area and shall be submitted for the approval of the Environmental Manager within two weeks of appointment and prior to commencement on site (whichever is the earlier). This period is to allow BBA to review the Subcontractor's CEMP and to discuss it with key stakeholders (as applicable). The BBA will ensure that each such plan assesses the level of environmental risk and develops appropriate management controls for the section's full scope of work to a standard consistent with this CEMP.

Design Consultants will comply with the requirements of the Design Management Plan and this CEMP. They shall assess the opportunities for sustainable development, recycling of materials and avoidance of environmental impacts consistent with the risk assessment included as Appendix G and Environmental Programs in Appendix L of the CEMP. Special measures, including environmental briefings of the design team, shall be implemented to address any timing discrepancies between the formal issue of the CEMP and the start of design.

Where a CEMP is required from a subcontractor, this plan shall address the specific work package(s) awarded and be submitted for approval by the Environmental Officer two weeks prior to commencement of work on site. The plan must assess the level of environmental risk and implement appropriate management controls for the subcontractor's full scope of work to a standard in accordance with this CEMP. The plan will be approved by the Environmental Manager, prior to works commencing.

Where appropriate, the BBA Subcontractor Safety and Environmental Pack will be made available to provide assistance to subcontractors to develop safety and environmental management plans.

A Pre-Award meeting will be held with consultants, suppliers and subcontractors, as applicable, to review all relevant project environmental procedures and rules, and deal with all environmental issues relating to the service being provided. The Environmental Manager or delegate shall attend the meeting or brief the Procurement Officer and shall sign the "Mandatory Requirements Checklist" before the consultants, suppliers and subcontractors can commence work.

BBA will audit all major consultants, suppliers and subcontractors on their performance against the requirements of this and their own Environmental Management Plan. Audits shall be carried out in accordance with the External Audit Schedule at Appendix J.

The BBA audit program shall have regard for the internal audit programs of the service providers. The frequency of BBA audits shall be reduced in line with increasing frequency of the service provider's internal audits together with the confidence BBA holds in the environmental management performance of the service provider. Internal audits shall be undertaken by each service provider to assess the pro-active implementation of their own CEMP. The Audit Program of each service provider shall be subject to the approval of the Environmental Manager. The Consultants Agreement / Subcontract shall require that copies of Audit Reports are provided to BBA.

10.1 Communication

The Consultants Agreement/Subcontract will require that service providers maintain open communication lines with BBA, other service providers and their own people.

Regular meetings will be held between BBA and the service provider to review the progress of the design / subcontract. At these meetings, environmental and community management will be a mandatory agenda item. The Environmental Manager, or delegate, will attend the meetings where there are significant environmental issues.

10.2 Induction and Training

All service provider personnel who will be working on site will be required by The Bell Bay Alliance to successfully complete the BBA site environmental induction. In addition, all service provider personnel shall attend an Environmental Induction based on their own CEMP. Service provider personnel are not to commence work on site until they have successfully completed all of the above.

Service providers will be required to attend additional formal training courses at the direction of BBA as well as informal site briefings such as toolbox meetings, Work Activity Briefings (WAB) and JSEAs.

11.0 INTERNAL COMMUNICATION

11.1 Project Team

A program of internal communication networks and regular (weekly) meetings and reporting has been established within the BBA Project team as highlighted in the Design and Construction Management Plan. Within this system, environmental management will be a mandatory agenda item.

11.2 Environmental Team

The Environmental Manager shall convene regular meetings of the Environmental Team for the environmental team and the Site Environmental Officers. The purpose of these meetings will be to:

- Provide a consistent approach to environmental management.
- Facilitate two way feedback on issues and performance.
- Build team spirit.

11.3 HSE Committee

Each Works Area may establish a Health Safety and Environmental (HSE) Committee. HSE Committee meetings will review the section environmental processes. They will identify, promote and support improved environmental behaviour and performance and report to the Project Team.

12.0 EXTERNAL COMMUNICATION

External communication requirements are documented in the Community Involvement Plan (CIP). Communication of significant environmental aspects shall be undertaken within the context of the CIP.

The requirements for environmental communication are summarised in this section.

Methods of communication with community and stakeholder groups shall include through appropriate methods as more fully described in the CIP, eg. through the Community Advisory Group (CAG), newsletters, letter drops, web page and community meetings. Communication of significant environmental aspects shall be undertaken within the context of the CAG.

A number of Government Authorities and community groups have been identified below as key stakeholders in the development of this Project. Requirements and responsibilities for liaison and consultation with these groups are set out in the CIP.

12.1 Regulatory Authorities

Regulatory authorities that have a direct interest (other bodies may be referral authorities or be in adjacent areas) in environmental issues relating to the Project are:

- Commonwealth - Department of Environment and Heritage
- Tasmanian Department of Tourism, Arts and the Environment (DTAE)
- Tasmanian Department of Primary Industry, Water and Environment (DPIW)
- Tasmanian Department of Parks, Heritage, Tourism and Arts (DPHTA)
- Resource Planning and Development Commission (Tasmania) (RPDC)
- Workplace Standards Tasmania (DIER)
- Tasmanian Fire Services
- Department of Health and Human Services
- Forestry Tasmania
- Forest Practices Authority
- George Town Council
- Launceston Council
- West Tamar Council.

BBA personnel shall establish open communications with the regulatory authorities identified as required and meet all of their reasonable requirements.

The requirements of these authorities are summarised at Appendices B, C and D.

The principal environmental regulator, the Environment Division of the Department of Tourism, Arts & the Environment (DTAE), will be provided with access to Incite for documents related to the regulation of the approval permit. This access will supplement regular weekly meetings between DTAE and BBA.

The State Government has formed a Regulator's Group for the project, through which BBA's submissions to regulatory bodies will be submitted.

12.2 Aboriginal Communities

Aboriginal Communities that have a direct interest and involvement in Aboriginal cultural heritage management relating to the Project are:

- Tasmanian Aboriginal Land and Sea Council (TALSC)
- Aboriginal Heritage Office – Department of Tourism, Arts and the Environment
- Office of Aboriginal Affairs – Department of Premier and Cabinet

12.3 External Stakeholders

Stakeholders that have an interest in environmental issues relating to the Project are fully listed in the IIS. They include:

- The Wilderness Society;
- Doctors for Forests;
- The Tamar Residents Action Committee (TRAC);
- Launceston Environmental Centre;
- Tasmanian Greens Leader Peg Putt;
- Senator Christine Milne;
- Clean Air Society of Australia and New Zealand;
- University of Tasmania – Launceston Campus Environmental Group;
- University of Tasmania – Hobart Environmental Collective;
- Upper Meander Catchment Landcare Group;
- South East Forests Protection Group;
- Tasmania Fishing Industry Council.

The key concerns of these groups with respect to the Project are summarised in the DIIS Volume 8, Appendix 12, Section 3, "Issues Summary":

These aspects have been included in the risk assessment in Appendix G and will be reviewed and updated as required. The Operational Controls included in the Environmental Programs as indexed in Appendix L and Process procedures as indexed in the Design and Construction Plan will seek to mitigate the assessed risk to an acceptable level.

Consultation with stakeholders will be ongoing for the duration of the Project. The effectiveness of these Operational Controls will be continually reviewed with stakeholders and preventive / corrective action taken as agreed.

Access for the public to information required to be publicly available will be via postings on the Gunns pulp mill web site.

12.4 Enquiries and Complaints Management

Any enquiries or complaints received from regulatory authorities, interest groups or the general public will be treated with respect. All enquiries and complaints will be managed in accordance with BBA-MPR-1000-1300-0001 "Community Enquiry & Complaint Handling" and BBA-PLN-1000-1300-0001 "Communications Plan". Should any complaints be received, these will be referred to the Community Relations Manager or nominee, who will maintain a Complaints Register and direct an appropriate course of action relating to the complainant's concerns. The Community Relations Manager will assess the seriousness of each individual complaint and will refer applicable complaints to the Managing Director. Complaints relating to environmental matters will be treated as environmental incidents and managed in accordance with BBA-MPR-1000-1500-0007 "Incident Notification, Reporting & Investigation".

More detail of the complaints management process is given in the Communications Plan particularly in relation to the special emphasis on training of field supervisors in how to respond to complaints from members of the community.

13.0 INDUCTION

13.1 Environmental Management Plan Induction

The Environmental Manager or delegate shall induct Project Personnel into the relevant requirements of this CEMP. Project Personnel are not to commence work on site until this has been successfully completed.

13.2 Project Induction

The Environmental Manager or delegate will conduct Environmental Inductions in accordance with BBA-MPR-1000-1500-0001 "Site Induction" and the requirements of the OH&S Plan. These will communicate relevant project-wide environmental requirements so that all personnel are aware of and understand the rules they are required to conform with and the impacts they are to avoid.

All personnel will be required to attend a general site induction and successfully complete an assessment concerning awareness of Project environmental issues prior to commencing work on the Project.

13.3 Site Induction

The Site Environmental Officer or delegate will conduct Environmental Inductions in accordance with BBA-MPR-1000-1500-0001 "Site Induction" and the requirements of the OH&S Plan. These will communicate relevant site-specific environmental requirements so that all personnel are aware of and understand the rules that they are required to conform with and the impacts they are to avoid.

13.3 Process Procedure Induction

The environmental requirements of process procedures will be communicated to relevant project and subcontractor personnel via a Work Activity Briefing (WAB), prior to that person commencing work in accordance with the process procedure.

13.4 Visitors

All visitors will need to undergo a visitor's induction. Consultants and subcontractors are responsible for the actions and conduct of their visitors and will need to ensure that all visitors obey the site environmental requirements.

All visitors will be accompanied at all times. Under no circumstances will a visitor undertake any physical work on site.

14.0 COMPETENCY AND TRAINING

14.1 Project Personnel

The Managing Director will ensure that all personnel are suitably qualified or experienced to undertake their work in an environmentally responsible manner. BBA-MPR-1000-1200-0017 Training – Identification and Approval" will be implemented. Where a training need is identified, arrangements will be made for the appropriate training and development in line with the individual's needs. BBA-MPR-1000-1200-0018 "Training – Delivery and Assessment" will be implemented.

Where necessary, assistance will be provided until the required competency level has been attained.

Formal training will be provided to personnel who have environmental responsibilities under this plan. The Environmental Manager in conjunction with the Training Officer will coordinate training, maintain training records and assess the effectiveness of the training. Structured training will also be provided to the direct labour workforce through formal courses and in-field mentoring.

14.2 Toolbox Meetings

Toolbox Meetings will be used to highlight specific environmental issues that are relevant to the work team.

Each supervisor and subcontractor will be responsible for conducting weekly/fortnightly Toolbox Meetings with their employees.

Attendance at Toolbox Meetings will be mandatory.

The Environmental Manager may furnish subject material and the relevant Environmental Officer will ordinarily attend.

Records of Toolbox Meetings will be maintained in accordance with the documents and records management system.

15.0 INCIDENT AND EMERGENCY MANAGEMENT

15.1 Incident Management

Any environmental incidents or non-conformances detected will be notified to the appropriate internal personnel, formally recorded on an incident register and where appropriate reported to regulatory authorities. The procedures to be adopted will be based on BBA-MPR-1000-1500-0007 "Incident Notification, Reporting & Investigation".

15.2 Emergency Response

The following have been identified as emergencies that could cause significant environmental impacts:

- Fuel or chemical spill onshore and offshore;
- Bushfire/grassfire.

Emergency mitigation and response actions for these and other general emergencies will be detailed in BBA-MPR-1000-1500-0012 "Emergency Preparedness and Response". All relevant project personnel, major contractors and subcontractors will be instructed and rehearsed, as appropriate, in the requirements of this procedure.

16.0 EVALUATING PERFORMANCE

Evaluating the environmental performance of the Project will include:

- Monitoring.
- Inspections.
- Auditing.
- Reporting.

16.1 Monitoring

The Environmental Manager is responsible for managing the Construction Monitoring Plan, which is attached at Appendix H.

Where required, specialist consultants will be engaged to help establish internal monitoring systems and to train relevant personnel in the collection of samples, use of scientific instrumentation and recording and analysis of data.

Any monitoring results that exceed the relevant limit / target will be treated as incidents and managed in accordance with “Incident Notification, Recording Investigation and Reporting” procedures under Item 15.1.

Inspection, testing and calibration of monitoring equipment will be a Project Environmental Team responsibility, and will be managed in accordance with BBA-MPR-1000-1700-0006 “Monitoring and Testing Equipment”.

16.2 Inspections

BBA-MPR-1000-1500-0005 “Workplace Hazard Identification & Inspection” will be implemented.

Environmental inspections will be undertaken, as described in the OCOs.

Any non-compliances detected during inspections of the work will be managed in accordance with BBA-MPR-1000-1500-0007 “Incident Notification, Reporting & Investigation.”

16.2.1 Subcontractor Inspections

Without relieving BBA of its responsibility to undertake regular inspections by its Environmental Manager and Environmental Officers, subcontracts will include, as applicable, special conditions requiring subcontractors to prepare and implement their own inspection checklists.

The minimum inspection frequency to be required is as follows:

- Daily informal inspection recorded in daily diary by site supervisors.
- Formal weekly inspection using approved checklist by Site Environmental Officers.

This frequency will be increased where activities are taking place in environmentally sensitive areas.

16.2.2 External Agency Inspections

It is anticipated that the regulatory agencies associated with environmental matters may wish to formally inspect the works, perhaps on a regular basis. The Environmental Manager or delegate will liaise with relevant authorities and attend these inspections.

16.3 Auditing

16.3.1 Internal Project Audits

Internal environmental audits will be conducted on the Project in accordance with the frequency set out in 16.3.2.

Audit requirements will be set out in the Internal Environmental Audit Schedule attached at Appendix I.

An Audit Report Register will be maintained.

Internal audits will include internal process control audits by the Environmental Manager of the Environmental Programs and Process Procedures. The Environmental Manager will also assist in the environmental aspects of audits by other project personnel, including:

- Environmental components of other plans, e.g. procurement.
- Process Procedures.

16.3.2 Internal Audit Frequency

Internal audit frequency will be at least monthly during construction.

The Environmental Manager will maintain the Internal Audit Register in the format of Appendix I.

16.3.3 Internal Auditor Competency

Personnel registered as environmental “Auditor” or “Lead Auditor” within the Gunns, John Holland & McMahon Management Systems or as approved by the BBA Alliance Leadership Team will conduct all internal audits.

Only personnel who have completed an external environmental auditor’s course and have been approved by the General Manager – Stakeholder Relations will be allowed to carry out external audits.

16.3.4 External Audits

External audits by the Gunns Environmental Management Representative will take place 6 monthly during construction.

In addition, the following types of audits may be carried out:

- Certification audits by third party certifiers;
- External audits of consultants, suppliers and subcontractor CEMPs.

16.3.5 Consultant, Supplier and Subcontractor Audit Frequency

Consultant, supplier and subcontractor procedures and (if applicable) Environmental Management Plans will be audited at a frequency determined by risk assessment. Planned audits will be included in the External Audit Schedule included at Appendix J. The Environmental Manager may initiate audits at a greater frequency if performance is not in keeping with Project objectives.

16.3.6 Audit Action Close Out

The auditee will review any adverse findings with appropriate personnel and develop an action plan to address the findings.

Where necessary, an investigation of the causes of any non-conformance will be undertaken. The action plan will need to be returned to the auditor within 7 days of receiving the audit report. Where there are significant adverse findings that could lead to an incident, this timeframe will be reduced.

16.3.7 Corrective and Preventative Action

Where the need to revise the management system is identified through audit or management review, the relevant manager will ensure appropriate corrective/preventative action is taken in accordance with BBA-MPR-1000-1700-0007 "Non-compliance & Corrective Action".

16.3.8 Audit of this CEMP

Joint systems audits of this CEMP will be undertaken by the BBA Environmental Managers and/or an approved external auditor at 6 monthly intervals. The Environmental Managers will also participate in the Management Review set out at Item 19.0 below.

17.0 REPORTING

Reporting requirements will be as set out in Appendix K.

The Environmental Manager is responsible for managing the Environmental Reporting Program. The Managing Director is responsible for submitting the reports required externally.

Reporting requirements include:

- Project internal reporting requirements. BBA-MPR-1000-1100-0007 "Project Reporting" will be implemented.
- John Holland Group reporting requirements.
- Gunns reporting requirements in accordance with the Environmental Requirements.
- Special reports to regulatory agencies if and as agreed.
- Annual returns to regulatory agencies if and as required by legislation.
- Special reports to regulatory agencies if and as required by Licences and Permits.

The table of contents for the environmental section of the Project Report is set out below:

- Environmental Incidents (including complaints).
- The status of any non-conformances.
- Status of action close-out.
- Significant events.

- Performance against Objectives and Targets.
- Results of Management Reviews.
- Results of internal and external monitoring, inspections and audits.

18.0 DOCUMENT AND RECORDS MANAGEMENT

All documents and written communication will be managed in accordance with the document management requirements set out in BBA-MPR-1000-1100-0001 “Documentation – Structure and Control”, BBA-MPR-1000-1100-0010 “Records and Filing and BBA-MPR-1000-1100-0011 “Archiving of Records”.

The Environmental Manager is responsible for establishing and monitoring the environmental documents and records management system.

19.0 MANAGEMENT REVIEW

A management review, that includes review of this CEMP, will be carried out as described in BBA-MPR-1000-1100-0014 “Review and Continuous Improvement”.

The Environmental Manager will participate in the Management Review of this CEMP.