

Environmental Program

EROSION AND SEDIMENT CONTROL

BBA-ENP-1000-1400-0001

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Table of Contents

1.	PURPOSE AND SCOPE	2
2.	OBJECTIVES	2
3.	TARGETS	2
4.	REGULATORY AND CONTRACTUAL REQUIREMENTS	2
5.	TECHNICAL DOCUMENTS	3
6.	KEY ENVIRONMENTAL ISSUES	4
7.	OPERATIONAL CONTROLS	4
8.	SITE ENVIRONMENTAL PLANS (SEP)	5
9.	CONTINGENCY MANAGEMENT	5
10.	EVALUATING PERFORMANCE	5
11.	REPORTING	6
12.	ATTACHMENTS	6

Operational Control Tables

Table OCO 1.1 Erosion and Sediment Control

1. Purpose and Scope

This Environmental Program describes the Erosion and Sediment Controls to minimise the impact of the design and construction of the Gunns pulp mill.

This Environmental Program forms part of the Bell Bay Alliance (BBA) Construction Environmental Management Plan (CEMP) and must be read in conjunction with the CEMP.

2. Objectives

1. Maintain or improve existing surface water quality during construction, consistent with the requirements of the Tasmanian State Policy on Water Quality Management 1994.

3. Targets

1. Achieve the Urban Stormwater: Best Practice Environmental Management Guidelines performance objective of a median suspended solid discharge concentration of not greater than 50 mg/L at the point of drainage discharge into streams (other than the Tamar estuary).
2. Ensure that Protected Environmental Values of stream and water bodies are not compromised by construction works.

4. Regulatory and Contractual Requirements

Refer to:

- CEMP Appendix B – Environmental Legislation Register
- CEMP Appendix C – Approvals Matrix
- CEMP Appendix D - Environmental Licences Register
- CEMP Appendix F – Environmental Commitments
- CEMP Environmental Obligations Register: GNS-OBL-1000-1400-001.

In particular, the following requirements are relevant:

- Environmental Management and Pollution Control Act 1994.
- State Policy on Water Quality Management 1994.
- Environmental Management Goals for Tasmanian Surface Waters – Tamar Estuary and North Esk Catchments December 2005.

Specific measures to consider are specified in the permit conditions, being:

- (a) identification of areas at risk of erosion and sediment movement;
- (b) measures to manage:
 - i) water and wind erosion;
 - ii) turbidity in the freshwater, estuarine and marine environments;
 - iii) sodic soils;

- iv) landslip and slumping;
 - v) soil mixing, inversion and compaction; and
 - vi) streambank erosion and channel stability;
- (c) measures to prevent sediment runoff into watercourses and wetlands from ground disturbance;
- (d) temporary and permanent control measures for disturbed areas and stockpiles; and
- (e) a monitoring and maintenance program.

5. Technical Documents

The following background studies, research documents and assessments have been used to identify the key environmental aspects:

Reference	Document Title
http://www.gunnspulpmill.com.au/iis/	Bell Bay Pulp Mill Draft IIS and Appendices

The following technical documents have been used to assist in identifying appropriate operational controls:

Availability	Document Title
EPA Victoria	Environment Protection Authority Publication 275 – Construction Techniques for Sediment Pollution Control
EPA Victoria	Environment Protection Authority Publication 480 – Environmental Guidelines for Major Construction Sites
EPA NSW	Landcom – Managing Urban Stormwater, Soils and Construction Volume 1 (Blue Book)
Victoria Stormwater Committee	Victoria Stormwater Committee – Urban Stormwater: Best Practice Environmental Management Guidelines
DPIW	Waterways & Wetlands Works Manual 2003
Hobart Regional Councils	Guidelines for Soil and Water Management 1999
Hobart Regional Councils	The Soil and Water Management Code of Practice for Hobart Regional Councils 1999
Launceston City Council	The Soil and Water Management Code of Practice for Launceston City Council 2000
Board of Environmental Management and Pollution Control	Environmental Management Goals for Tasmanian Surface Waters – Tamar Estuary and North Esk Catchments December 2005

6. Key Environmental Issues

Refer to:

- CEMP Appendix G – Environmental Risk Assessment

Any construction activity involving earthworks and where vegetation cover has been removed will potentially have an increased risk of erosion and sediment runoff. Erosion and consequent sedimentation can have detrimental effects on water quality, habitat inundation, land degradation and can significantly affect the efficiency and integrity of construction.

The technical documents and the environmental risk assessment have identified the following key environmental issues:

- Protection of existing water quality.
- Prevention or control of erosion by surface water run off.

Environmental risks include:

- Erosion and loss of topsoil and subsoil material and sediment discharge into waterways
- Reduction in the potential for rehabilitation success
- Threat to construction activity efficiency
- Infrastructure exposure
- Stability issues associated with earthworks and vegetation removal
- Increased cost of rehabilitation activities
- Dust emissions from construction activities.

7. Operational Controls

Environmental outcomes to be achieved are:

- Drainage, erosion and sediment controls prevent the discharge of sediment off the easement and outside the construction zone
- Erosion controlled during construction to ensure that sediment is not discharged to any water bodies.

The operational controls for management of soil and water during design and construction are set out below:

Table	Title
OCO 1.1	Erosion and Sediment Control

The operational controls include requirements and responsibilities for:

- Consultation
- Approval requirements
- Design of permanent works
- Design of temporary works
- Construction activities
- Commissioning and handover.

8. Site Environmental Plans (SEP)

- Refer to SEP Register.

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 Environmental Program and Operational Control tables.

The information contained in the SEPs is presented in tabular drawing format. This is to make them easy for use by all BBA site personnel, consultants and subcontractors.

The controls set out in the SEPs are drawn from the Environmental Programs and Operational Controls.

9. Contingency Management

The environmental risk assessment has identified the following circumstances that could occur outside normal operating conditions:

- Contamination of existing waterways resulting from a storm event greater than the design storm event.
- Temporary erosion and sediment controls are insufficient for the area exposed and a storm in excess of the design storm.

If these circumstances occur, the following contingency measures will be implemented:

- The cause of the breach will be modified or stopped.
- If required, the DTAE will be informed.
- The construction method and control measures will be reviewed and improved if necessary.
- The modified methods and controls will be monitored to ensure compliance has been achieved.

10. Evaluating Performance

The Operational Controls, together with the SEPs are used as the basis for evaluating performance.

Refer to:

- CEMP Appendix H – Construction Monitoring Plan.
- CEMP Appendix I – Internal Environmental Audit Schedule.
- CEMP Appendix J – External Environmental Audit Schedule.

Environmental Checklists are used for evaluating performance.

Refer to:

- BBA-CKL-1000-1400-001A Erosion and Sediment Control.

11. Reporting

Refer to:

- CEMP Appendix K – Environmental Reporting Program.

12. Attachments

Not Used.