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Highland Pine Products



Environmental Management Plan

HPP Site 1 Timber Mill
Lowes Mount Road,
Oberon

HPP Site 2 Timber Mill
Albion Street, Oberon

HPP Treatment Plant
Stewart St, Bathurst

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Environmental Management Plan Document Control

This Environmental Management Plan (EMP) for Highland Pine Products (HPP), Oberon is a controlled document.

This copy has been issued to:

Controlled Copy No.:
Position:
Current Incumbent:

Controlled copies of this EMP are held by the personnel described in the following table:

Controlled Copy Distribution

Controlled Copy No.	Position	Current Incumbent
1	EHSR Advisor	Wendy Lindsay
2	General Manager	David Knights
3	Site Services Manager	Ben Gawehn
4	Gate 3 Security	Security

Controlled copies must be approved by the General Manager before issue.

Prior to being issued, any proposed amendments to this EMP must be approved by the General Manager following consultation with the Site Services Managers.

Amendments made to this EMP shall be distributed by the General Manager to the holder of each controlled copy of the EMP. The holder of each controlled copy is responsible for ensuring that the amended pages are updated in their controlled copy.

Environmental Management Plan Amendment Register

Subsequent to the finalisation of this Environmental Management Plan (EMP) for Highland Pine Products (HPP) Oberon, the following amendments were made and require implementation.

Section	Amendments Made	Reason for Amendment	Responsibility	Done (Initial & Date)
All	Full doc review	Update to meet current operational impacts	SK	SK Sept 2014
All	Full doc review	Update to comply with external audit findings	SK	SK Dec 2015
All	Full doc review	Update to meet current operational impacts	SK	SK July 2017
All	Full doc review	Update to meet current operational impacts	SK – EHSR Group	SK Dec 2018
All	Final signoff	Final signoff – distribution of controlled copies	SK – EHSR Group	April 2019

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Key Contacts

The Environmental Manager is ultimately responsible for implementation and maintenance of this EMP.

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1. Introduction

1.1 Purpose

This document has been prepared on behalf of Highland Pine Products (HPP) to detail how environmental values, which could potentially be impacted by its operations, will be managed and protected. This document will also detail how compliance with conditions of the original Development Approval (DA), Environmental Protection Licences (EPLs) and environmental legislation will be monitored and achieved.

1.2 Background

Highland Pine Products Pty Limited is a joint venture between AKD Softwoods (AKD) and Boral Timber. HPP operates sawmilling operations as part of the overall Oberon Timber Complex (OTC). The joint venture was originally formed in August 2000 following then owner Carter Holt Harvey's (CHH) acquisition of the CSR sawmill (Site 2) located on Albion Street. In 2018, AKD purchased CHH's 50% share in the joint venture.

HPP operates an integrated timber processing facility over two adjacent sites located on Lowes Mount Road and Albion Street, less than one kilometre north of Oberon. **Figure 1** is an aerial photograph of the Oberon Timber Complex showing all site boundaries.

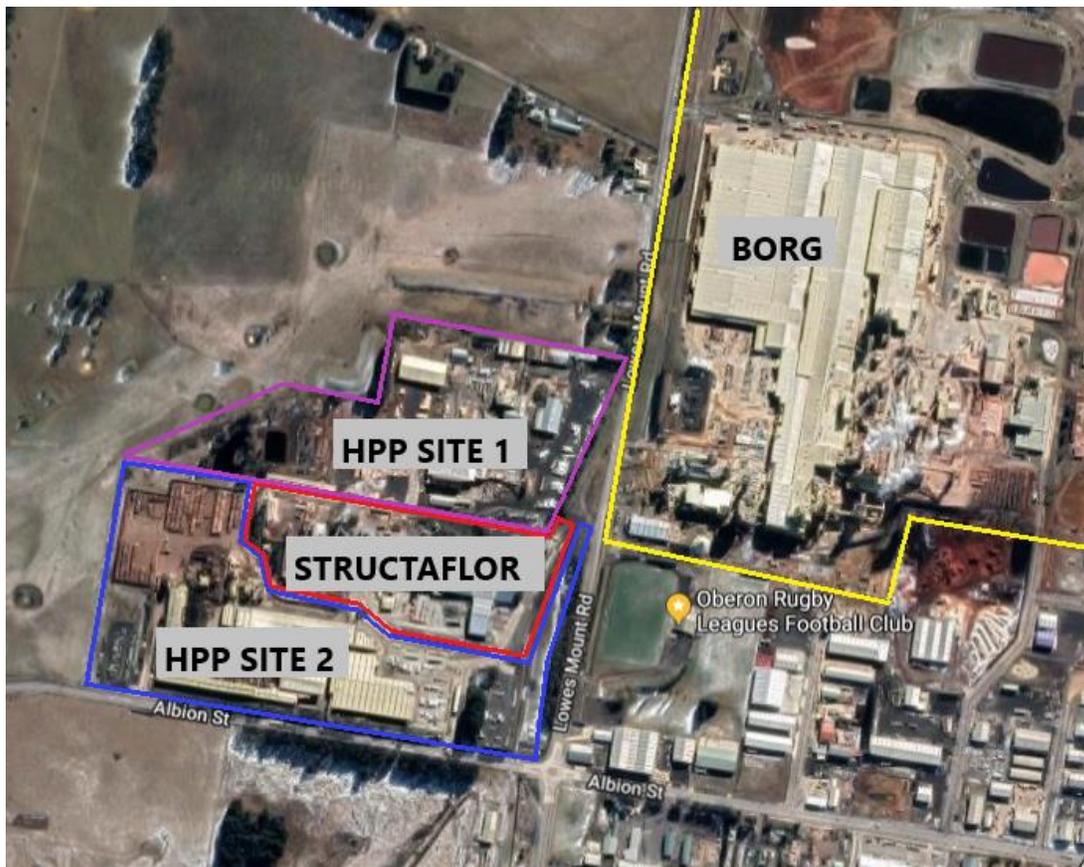


Figure 1: Oberon Timber Complex site boundaries (all sites).

Note: This EMP relates to HPP operations only.

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The original sawmill (Site 1) was constructed in the early 1940's and expanded in the 1990's (Site 2). The site operates on a 24/7 approval, employs ~200 direct and significantly more indirectly.

HPP produces structural timber through the following process:

- Log is procured from state and private forests within a 100 km radius of Oberon.
- Trucks deliver the log sorted by diameter with branches removed.
- A five-day production capacity log stockpile onsite feeds the sawmill.
- The majority of the log is processed in four stages Greenmill, Kilns, Drymill and Bifenthrin treatment (where required).
- During the Greenmill process, the log is debarked, scanned to select the “best cutting pattern” and then broken down to preset parameters at a number of inline sawing stations. The resulting various timber sections and lengths are like sorted and stacked.
- In the kiln process the timber stack out of the Greenmill is kiln dried for 6 to 10 hours to reduce the timber moisture to 12%. After the drying process the timber is transported to the Drymill for further processing.
- In the Drymill, the timber is de-stacked, smooth planed, graded/sorted, stacked and wrapped for dispatch.
- Approximately 30% of the finished goods are passed through an envelope treatment system (blue frame timber treatment) where an insect repellent (bifenthrin) is applied to the outer surface.
- The sawmill has a capacity to process 725,000m3 of plantation Radiata pine log.
- The main finished sawmill product is applied in the structural/housing timber framing market.

The Bathurst Treatment Plant was first commissioned in 1980. In August 2000, the plant formed part of the Joint Venture. Fully undercover and banded, the process involves placing timber packs into one of the two autoclaves for soaking in a treatment solution over a set period of time. The plant treats kiln dried Radiata Pine to a H2 protection level using either the LOSP full penetration or the Tan-T envelope process. The plant has been mothballed for a number of years and poses minimal risk to the environment.

1.3 Structure of EMP

This EMP is split into two main sections:

- Section 2 describes the overall requirements of the EMP and general information; and
- Section 3 describes the strategic management plans for identifying and managing risks to the environment.

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2.0 General Information

2.1 Corporate Environment Policy

HPP is a joint venture business with equal shares owned by both Boral and AKD. Both businesses have a strong environmental commitment to maintaining a sustainable business in a responsible manner underpinned by their respective environmental policy documents.

2.2 Objectives of Environmental Management Plan

Objective of this environmental management plan are that:

- HPP's operations will comply with all controlling environmental regulations, licences and consent conditions;
- environmental impacts will be controlled within accepted limits as defined by regulatory agencies including Environmental Protection Agency (EPA) and the Department of Planning NSW; and
- in the event of a failure to achieve either of these objectives, frank and expeditious remedial action is implemented so that impacts can be contained and operations corrected to prevent a future failure.

2.3 Statutory Obligations

Table 1 lists the specific regulatory conditions that are applied at HPP's facilities which may be updated in consultation with the regulator from time to time. The most current copies are provided as **Appendix 1**.

Table 1: Specific Regulatory Conditions

Regulatory Authority	Regulatory Document	Facility
Department of Planning and the Environment.	Development Consent No. 403-11-00	HPP Site 2
NSW EPA (DEC)	Environmental Protection Licence No. 887	HPP Site 1
NSW EPA (DEC)	Environmental Protection Licence No. 105	Timber Treatment Plant Bathurst
NSW EPA (DEC)	Environmental Protection Licence No. 11229	HPP Site 2

2.4 Planning Requirements

As part of the Development Consent Approval, HPP is required to prepare an Environmental Management Plan (EMP) to show how the sawmill and associated facilities will assess and minimise operational adverse impacts on the receiving environment.

As a minimum, the EMP must;

- describe the proposed operations;
- identify all the relevant statutory requirements that apply to the operation of the development;

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- set standards and performance measures for each of the relevant environmental issues;
- describe what actions and measures will be implemented to mitigate the potential impacts of the development, and to ensure that the development meets these standards and performance measures;
- describe what measures and procedures will be implemented to:
 1. register and respond to complaints;
 2. ensure the operational health and safety of the workers; and
 3. respond to potential emergencies, such as plant failure;
- describe the role, responsibility, authority and accountability of all the key personnel involved in the operation of the site and;
- incorporate the detailed Environmental Monitoring Program

2.5 Responsibilities

To ensure that the objectives of this EMP are met, clear responsibilities and performance criteria need to be defined for all environmental management actions and activities. Environmental management responsibilities will be incorporated into job descriptions and performance measurements, where applicable.

Highland Pine Products have engaged an Environmental Consultant (EHSR Group) for environmental advice and support, reporting directly to the HPP General Manager and to the HPP Board. The Site Services Manager is responsible for ensuring the objectives of this EMP are met with the support of the General Manager and other Managers as required. Responsibility for implementing certain components of the EMP will also be passed on to HPP personnel in relevant areas.

Table 2: Summary of Responsibilities

Position	Report to	Summary of Responsibilities
Environmental Consultant	HPP General Manager. HPP Board	Ensure statutory environmental safeguards are enforced, monitored and reported; Preparation, monitoring and implementation of EMP.
HPP General Manager	HPP Board	Ensure statutory environmental safeguards are enforced and allocate appropriate resources to support environmental requirements.
HPP S.S.M.	HPP General Manager	Ensure EMP objectives are met. Implement EMP environmental controls and improvements required to meet objectives.
HPP EHSR Advisor	HPP General Manager	Prepare and implement environmental training and education programs
Area Production Managers	HPP General Manager	Identify potential and/or actual environmental hazards, rectify and report. Assist EHSR Advisor with training and education programs.

2.6 Monitoring and Reporting Requirements

As part of HPP commitment to environmental management, this EMP specifies the documented monitoring and reporting procedures that regularly measure environmental aspects, objectives and targets.

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The environmental monitoring program is run by the Environmental Consultant and Site Services Manager and involves:

- regular inspections of the plant and surrounds;
- both manual and automated monitoring and sampling in specific areas of environmental concern as required by Environmental Protection Licences and to demonstrate protection of the environment; and
- an internal and external auditing program, as discussed in *Section 2.9*.

The environmental reporting program involves:

- environmental licence compliance reporting, as detailed in *Section 2.7*;
- emergency incident reporting as detailed in *Section 2.11*;
- internal inspection and non-conformance reporting, which involves identification of potentially impacting practices, formulation of a corrective action plan and review of corrective action implementation;
- National Pollution Inventory reporting;
- Annual Environmental Management report.

The environmental monitoring and reporting program for specific areas of environmental concern are discussed in detail in *Section 3*.

2.7 Environmental Licence Compliance Reporting

Within eight weeks of the anniversary of the licences **887, 11229 & 105**, the licensee must provide the Environment Protection Authority (EPA) with an Annual Return. The annual return is a statement of compliance with the licence conditions and reports the pollutant loads generated by the premises. Administrative fees for the coming 12 months generally fall due at the same time as the annual return.

The annual return form must be completed and submitted on the proforma provided by the EPA to all licensees and must be signed by the licence holder or a person authorised to sign on the licence holder's behalf where the licence holder is a company. The return will usually be signed by two company directors.

The following detail must be declared as part of the Annual Return:

- whether all monitoring required by the licence has been carried out;
- if all the monitoring has not been carried out, what monitoring has not been carried out and the reasons why the monitoring has not been carried out;
- whether every condition of the licences have been complied with;
- if one or more conditions have not been complied with, in relation to each such condition:
 - the nature and reason of the non-compliance;
 - any action taken to prevent, control or mitigate the non-compliance;
 - any action that has been or will be taken to prevent a recurrence of the non-compliance.

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- A statement of compliance regarding the preparation of a pollution incident response management plan (PIRMP)
- A statement of compliance regarding the requirement to publish pollution monitoring data; and
- A statement of compliance regarding environmental management systems and practices.

In signing the Annual Return, the signatory declares the information is not false or misleading in a material respect and acknowledges that information provided that is found to be misleading may render the signatory to personal penalty.

2.8 Public Feedback

A 1-800 Community Liaison Line (1800 802 795) is manned 24 hours a day 7 days a week by the security personnel on the site gates. This line allows members of the community to contact HPP in the event of any issues, complaints or concerns. CHH (and HPP) has maintained a Community Liaison Line since 1996 in accordance with consent conditions and environmental protection licences and sees it as a direct means of communicating with the community and issues raised through this channel provide a quantitative means of assessing environmental performance and the effectiveness of this EMP.

In the event of any issues or concerns raised by the public a company representative will record the following:

- date and time of the discussion;
- contact details of the caller, if provided;
- nature of the discussion; and
- suggested actions by the caller, if relevant.

The person receiving the call will then forward the details to the Site Services Manager or their designated representative as soon as practicable, who will review the comments as they arrive. Where practical and reasonable, HPP will implement an action to correct any complaint and contact the person to advise them that an action has been implemented at their earliest convenience. When appropriate, community concerns will be discussed at quarterly community meetings. Details of complaints and corrective action will be recorded in a register and reported as required.

2.9 Audit Requirements

At least every three years an independent environmental audit will be undertaken to identify HPP's current performance in complying with environmental laws and regulations. The audit will highlight existing and potential environmental exposures and will generate corrective action to ensure continual improvement in environmental performance. Any recommendations proposed by the audit will be implemented to ensure risk to the environment is minimised and HPP is protected from legislative and policy breaches.

To ensure auditing of this Environmental Management Plan is both comprehensive and functional, environmental auditing will:

- be considered as a management tool for recognising and assessing environmental risk that can assist in developing strategies that minimise risk and improve environmental performance;

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- be systematic and structured. All relevant aspects of operations at the facility need to be identified and included at an agreed level of detail in the audit;
- be verified by supporting documentation. If evidence generated by the audit is not verified, the process is then considered a review – not an audit;
- be periodic in nature and not merely an isolated exercise. The audit period may range from between six months and five years depending on HPPs requirements and the level of environmental risk being assessed;
- be well documented so that it may be verified that it has been undertaken properly. An environmental audit must be finalised with a written report of the assessment;
- be objective. Independence of auditors is an integral component of ensuring a reputable environmental audit;
- measure the level of environmental risk that operations at the facility pose on the environment and humans and devise strategies to minimise that risk. A fundamental part of the audit recommendations is to prioritise actions to minimise identified environmental risks; and
- identify areas where HPP is potentially non-compliant with legislation.

The results and recommendations of the audits, where applicable, will be incorporated into this EMP by the Environmental Consultant.

2.10 Environmental Awareness and Training

To ensure a culture of environmental awareness within HPP requires effective education and training of HPP personnel and HPP employed contractors and consultants.

The success of this EMP is dependent upon training of HPP personnel to develop an understanding of the issues involved and individual roles and responsibilities identified by this EMP. Central to this is the need for all senior personnel to recognise the value of building a belief and commitment to HPP's Environmental Policy. Training and education of HPP personnel can be viewed as a means of removing some of the obstacles to the successful and efficient implementation of this EMP.

To this end, each individual, dependent on their role must be able to identify the potential impacts of their actions and decisions on the environment and either modify their behaviour accordingly or seek advice from their supervisor. Specific roles and responsibilities for implementation of this EMP are provided in *Section 3.0*.

Records of environmental training are kept by the HPP EHSR Advisor.

The following table (*Table 3*) identifies the various principles of environmental education that HPP will implement.

Table 3: Awareness and Training Principles

Awareness and Training Principles
<p>Inclusive of all HPP personnel</p> <p>Environmental education cannot be confined to any group of personnel. It is a responsibility for all staff, including contractors and consultants.</p>

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<p>Performed on an on-going basis</p> <p>Knowledge and skills should be refreshed in light of new environmental aspects; issues and management techniques/mechanisms.</p>
<p>Practical in approach</p> <p>This is a fundamental requirement of effective environmental education. Awareness and training programs must be geared toward actions which will effectively result in improved environmental outcomes and conditions at the facility rather than an accumulation of inert knowledge or impractical skills.</p>
<p>In harmony with other HPP goals for the facility</p> <p>In order for HPP to establish an effective environmental awareness training program, it needs to encourage the pursuit of environmental goals in a way that acknowledges other goals of HPP, including safety, productivity and efficiency – it should not be taught in a way that is divorced from the core business needs of the facility.</p>
<p>Inductions</p> <p>All HPP personnel, contractors and consultants will undertake an induction that will include HPP responsibilities to the environment, environmental awareness training, outline that improved housekeeping is a goal of production and their specific environmental responsibilities. Inductions will be the primary means of environmental training for the majority of personnel. Selected HPP personnel will receive additional environmental training on a needs basis, as assessed by HPP management.</p>

2.11 Emergency Preparedness

The *Protection of the Environment Legislation Amendment Act 2011(the Act)* introduced a number of important changes that impact the way pollution incidents are reported and managed. One key requirement is that all licensees in NSW must prepare and implement a Pollution Incident Response Management Plan (PIRMP). The HPP PIRMP has been written and implemented to comply with the requirements of the Act and associated Regulations.

The PIRMP is a module in a suite of documents that support compliance with environmental legislation and development consents. The related Environment Management System (EMS) document is the interface between the CHH WPA Management System requirements and the site specific Environment Management Plan (EMP).

The EMS, EMPs and related modules comprise an integrated environmental management system. This PIRMP and its modules not only seek to ensure environmental compliance but to continually improve performance. The PIRMP is attached as **Appendix 2**.

2.12 Environmental Management Plan Updating

This Environmental Management Plan is a working document and will be amended as necessary. Amendments could be made under various circumstances including:

- work practice changes;
- environmental safeguard and management strategy variations; and
- changes of legislative or regulatory controls by government agencies.

Environmental management is the responsibility of each staff member. Consequently, suggestions for document improvements by any staff member will be considered in amending this document.

Section 2 describes the overall requirements of this EMP and general information and *Section 3* describes the strategic management plans for key potential environmental issues. Each can be amended independently as required, and the overall plan will be reviewed on an annual basis.

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2.13 Implementation

This EMP will be reviewed as required when operations at the site are materially altered. Any change in this document will be forwarded to the HPP General Manager for review prior to approval and implementation.

3.0 Strategic Management Plans

Section 3 of the EMP is divided into each aspect of the natural and built environment that may be affected by HPP's operations, including:

- Impacts to water: Surface and ground water. Including recycling water and fire water.
- Impacts to air: Dust; fugitive emissions, point source emissions and noise.
- Traffic Management;
- Waste and Materials Management.

For each of the above aspects, this EMP will:

1. identify what activities are potential or actual risks to the environment;
2. describe infrastructure that has been installed to mitigate the above risks to the environment; and
3. describe the environmental management tasks required to monitor and/or control these risks including appropriate performance indicators, reporting requirements and any corrective action. It will then outline responsibility and frequency of each activity. These environmental management tasks are tabulated so they can be used as a checklist by HPP staff.

3.1 Surface Water

Environmental Risks

The potential and actual risks to surface water as a result of site' activities include:

- contamination due to spills and leaks from site machinery;
- leachate from stockpiles of timber and wood chips; and
- contaminated surface water leaving site and affecting downstream receptors.

Environmental Management Infrastructure

To mitigate the above environmental risks, the following infrastructure has been installed:

- bunding around areas where chemicals are regularly used and around refuelling areas;
- spill kits, strategically located across the site;
- oil/water separators;
- sealing of the majority of Site 2 and the Bathurst Timber Treatment Plant
- a diversion drain system across the site to drain surface water from non-operational areas of the site and other parts of the upstream catchment around the HPP operational areas;

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- a series of first flush dams and sedimentation ponds and tanks to capture runoff, allow settlement of solids and increasing on-site detention time and thus reducing flow velocity to downstream creeks and reducing erosion;

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Inspect bunding for damage. Advise the Environmental Manager if damage is observed or water level is near to capacity.	Site services manager	Every two weeks or after a significant rain event.
Inspect drains and ponds (including diversion drains), water quality and flow rate. Ensure drains are free of sediment, refuse and other obstructions.	Site services manager	Monthly
Inspect water quality of the oil/water separators and advise the Environmental Manager if significant amounts of oil present.	Site services manager	Monthly
Inspect sedimentation ponds and tanks and ensure they have sufficient capacity to hold at least a 1 in 3 month, one hour storm. (less than 50% full)	Site services manager	Monthly
Inspect areas of potential runoff for chemical and oil staining and cleanliness. Advise Environmental Manager of presence of staining or other material.	Site services manager	Monthly
Inspect and record water quality in drains and ponds across the site as per the site stormwater management plan. Report any surface oil and very dark colour to Environmental Manager.	Site services manager	Every two weeks.

Environmental Monitoring Requirements

Site #/EPL	Pollutant	Units	Limit	Notes
HPP 1/887 Surface Water	BOD	mg/L	20	HPP 1 discharge point diverted to land owned by holder of EPL 3035. No samples required.
	Oil and Grease	mg/L	10	
	pH	-	6.5-8.5	
	TSS	mg/L	30	
HPP 2/11229 Surface Water	HPP 2 is allowed to discharge surface water untreated to land owned by the holder of EPL 3035 for treatment and discharge.			
Bathurst LOSP/105	No requirement and site mothballed.			

3.2 Groundwater

Environmental Risks

The potential and actual risks to groundwater as a result of site' activities include:

- contamination by leachate from stockpiles of timber and wood chips;
- spills of chemicals/agents and leaks from machinery; and
- leachate from contaminated soil and fill.

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- spill kits strategically located across the site;
- oil/water separators;
- sealing of the majority of Site 2, the Bathurst Timber Treatment Plant and some areas of Site 1; and
- installation of an extensive series of groundwater monitoring wells across the HPP business units.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
EPL No. 11229 requires measurement of depth, nitrate, biochemical oxygen demand, electrical conductivity, total organic carbon, total dissolved solids and pH for the two groundwater monitoring wells, the results of which are included in the Annual Environmental Licence Compliance Reporting for EPL No. 11229.	Environmental Consultant or delegated representative	Bi-Annually

Environmental Monitoring Requirements

Site #/EPL	Pollutant	Units	Limit	Notes
HPP 2/11229 Groundwater	BOD	No limits		Results reported in annual return to EPA
	Conductivity			
	Nitrate			
	pH			
	TDS			
	TOC			

3.3 Process Water

Process water such as kiln condensates, boiler blowdown, etc. generated by HPP is discharged to the adjacent Borg waste water treatment plant (WWTP) for treatment. The process enables treatment and recycling of water, greatly reducing the potable water requirement of the MDF site, as well as the volume of wastewater discharged to the Oberon municipal sewer. This operational aspect is formalised through a Shared Service Agreement (SSA) with the Borg Group as owners of the WWTP.

Environmental Risks

The potential and actual risks to the environment as a result of site activities include:

- process water entering surface water and either causing contamination (including temperature) or increasing surface water flow velocities and causing erosion;
- contamination of or damage to the Oberon municipal sewer systems and treatment plant; and
- water wastage through lack of recycling of process water.

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Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following infrastructure has been installed:

- waste water treatment plant located at the MDF factory with associated infrastructure;
- bunding around areas where chemicals are regularly used;
- spill kits are strategically located across the site;
- sealing of the majority of Site 2 and some areas of Site 1; and
- a series of first flush dams, gross pollutant traps, sedimentation ponds and tanks that can be used to contained excess or split process water.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
HPP Waste Water quality will be monitored daily and the HPP Kiln Supervisor notified if the volume received exceeds the agreed daily volume limit or if there is no flow.	WTP Co-ordinator and HPP Kiln supervisor	Daily
HPP daily flows for Process water discharged to the MDF Waste Water Treatment Plant under the SSA are to be recorded daily and reported every three months.	WTP Co-ordinator	Every 3 months

3.4 Fire Water

Environmental Risks

Contaminated water could be generated in the event of controlling a fire. This contaminated water could potentially damage surface water environmental receptors if allowed to flow off site.

Environmental Management Infrastructure

In order to mitigate the above environmental risk, penstock gates have been installed along the drainage line from both HPP site 2 and the adjacent Structaflor facility. HPP site 1 surface water discharge is via an easement to the adjacent MDF site, where it can be contained and pumped as required.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Inspect surface water following a fire fighting event to determine if water is able to be discharged to creeks or requires treatment and/or disposal at a appropriately facility. Undertake water sampling and laboratory analysis if required. Water quality must meet surface water requirements prior to discharge.	Environmental Manager	Immediately after a fire fighting event
Inspect downstream surface water receptors following a fire fighting event to determine if downstream contamination is present or has occurred. Liaise with EPA and stakeholders as required. The result of the inspection to be included in the annual Environmental Management Report.	Environmental Manager	Immediately after a fire fighting event

3.5 Dust

Environmental Risks

The potential and actual risks to the environment through dust as a result of site activities, include:

- dust generated from roads and uncovered vehicle loads, and

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- dust generated from the process system, particularly from wood storage.

Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following infrastructure has been installed:

- sealed trafficable areas;
- buildings/sheds around certain areas of the process system;
- pneumatic transfer system to convey wood by-product generated in the process system for use as boiler fuel;
- bag houses for dust collection from dry milling; and
- dust deposit gauges for on-going dust monitoring

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Undertake sweeping of road surfaces as required.	Site services manager	As required
Ensure truck loads are covered at all times, except during loading and unloading.	Site services manager	As required
Inspect and collect dust deposit samples from dust deposit gauges located at three locations off site. Laboratory analysis of the monthly dust deposit samples for: <ul style="list-style-type: none"> insoluble matter; ash; combustible matter; total solids; and soluble matter. The laboratory results should not exceed the following: <ul style="list-style-type: none"> annual average of monthly insoluble matter deposits of 4 g/m²/month; and monthly maximum insoluble matter deposits of 8 g/m²/month. as per the current EPA Guidelines. Any exceedance or complaints relating to dust discharge will be reported in the annual return. The laboratory results must be reported in the Annual Environmental Licence Compliance Reporting for EPL No. 11229.	Environmental Consultant or delegated representative	Monthly

3.6 Air Emissions

Environmental Risks

The potential and actual risks to the environment through air emissions as a result of site activities, include:

- smoke (predominately a mixture of carbon monoxide, carbon dioxide, nitrogen oxides and suspended particulates) emitted through the exhausts stacks from the boiler; and
- exhaust fumes from site vehicles and machinery.

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Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following infrastructure has been installed:

- cyclonic flow system with inbuilt reticulation on boiler stacks.
- buildings/sheds around areas of the process system where possible;
- automated loggers of on-line opacity on exhaust stacks; and
- 24 hour 7 days a week community liaison telephone line for any community complaints or concerns.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
The Site services manager will visually check air emissions during daily outdoor inspections and undertake appropriate action as required.	Site services manager	Daily
Continuous in-stack monitoring and recording of opacity of stack gases in accordance with sampling method CEM-1 in order to monitor smoke emissions at HPP Site 2 sawmill heat plant stack. The opacity not to exceed 20% (equivalent to Ringlemann 1), except for up to 10 minutes in any 8 hour period for lighting a boiler and blowing soot from a boiler	Site services Manager or delegated representative	Continuous (automated)
Air quality monitoring at the HPP Site 2 sawmill heat plant stack in accordance with the appropriate test method outlined in the <i>Clean Air (Plant and Equipment) Regulation 1997</i> , for analysis of: <ul style="list-style-type: none"> • carbon dioxide using Test Method 24; • carbon monoxide using Other Approved Method 1; • dry gas density using Test Method 23; • moisture using Test Method 22; • nitrogen oxides using Test Method 11; • temperature using Test Method 2; • total solid particles using Test Method 15; • velocity using Test Method 2; and • volumetric flow rate using Test Method 2. The air quality results are not to exceed the statutory requirements. The air quality results to be reported in the annual Environmental Licence Compliance Reporting for EPL No. 11229.	Environmental Consultant or delegated representative	Yearly

3.7 Noise

Environmental Risks

The potential and actual risks to the environment through excessive noise as a result of site activities, include:

- Disruption to the community due to noise generated generally from site vehicles and machinery.

Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following infrastructure has been installed:

- buildings, shed and other surrounds enclosing noisier parts of the process system, particularly the saws, planers and chippers;
- noise barriers and walls surround the majority of the complex to minimise the noise from noise emitters that can not be enclosed, particularly the log yard;

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- buffer land around the site to increase the distance from the facility to the nearest community receptor; and
- 24 hour 7 days a week community liaison telephone line for any community complaints or concerns.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Noise monitoring to be conducted at the nearest or most affect residential premises within Oberon, adjacent to the Oberon industrial area, and within the Oberon industrial during the day, evening and night time hours. The noise monitoring to measure the $L_{A10(15 \text{ MINUTE})}$, which is the sound pressure level that is exceeded for 10% of the time when measured over a 15 minute period	Environmental Consultant or delegated representative	Yearly

Noise Limits

	Location	$L_{A10(15 \text{ minute})}$ Noise Level (dBA)		
		Day (7am – 6pm)	Evening (6pm-10pm)	All Other Times
EPL 11229	Oorong or any other noise sensitive location (such as residence/school) along Herbourne or West Cunynghame Street, Oberon	55	50	50
DA 403-11-00	Residential areas within Oberon	46	41	36
	Residential areas adjacent to industrial areas or main roads	51	46	41
	Residences within industrial areas	56	51	46

Environmental Noise Monitoring Locations and Monitoring Frequency

Location	EPL & DA Time Block Description	DA 403-11-00 Limit (Ave. L_{A10} (dBA))	EPL 11229 Limit (Ave. L_{A10} (dBA))	Frequency
Oorong	Day	51	55	Annually
	Evening	46	50	Annually
	All other	41	50	Annually
				Annually
6 Herborn St	Day	51	55	Annually
	Evening	46	50	Annually
	All other	41	50	Annually
26 West Cunynghame St	Day	51	55	Annually
	Evening	46	50	Annually
	All other	41	50	Annually

3.8 Rehabilitation and Landscaping

Environmental Risks

The potential and actual risks to the environment through lack of effective rehabilitation and landscaping, include:

- emission of dust from poor vegetation cover;

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- spread of noxious weeds;
- reduction of natural habitats; and
- reduction in the aesthetics surrounding the site.

Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following landscaping has been undertaken:

- all suitable areas to be vegetated and landscaped; and
- where suitable, rows of trees and shrubs to be maintained around the perimeter of the site.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Under take watering, mowing, pruning and general maintenance of vegetation and landscaping across the site.	Ground Staff	As required
Revegetate and/or landscape areas of the site which have been disturbed as soon as possible after works are completed.	Ground Staff	As required

3.9 Traffic Management

Environmental Risks

The potential and actual risks to the environment through traffic associate with the site, include:

- emissions of dust from unsealed roads and uncovered truck loads;
- emissions of exhaust fumes from vehicle exhausts; and
- disruption to residents from traffic movements.

Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following infrastructure has been installed:

- sealing of trafficable areas;
- streamlined traffic management system across the site to minimise traffic congestion particularly from loading and unloading of trucks;
- weigh stations and named entrances to site;
- establishment of Oberon Bypass Roads to ensure trucks don't travel through centre of the township of Oberon; and
- 24 hour 7 days a week community liaison telephone line for any community complaints or concerns.

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Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Ensure truck loads are covered at all times, except during loading and unloading.	Site Services Manager or delegated representative	As required
Personnel operating traffic control gates and weigh bridges to record vehicle movements, load quantities and source/destinations of all trucks entering and leaving the site.	Site Gate Security	As required

3.10 Waste and Materials Management

Environmental Risks

The potential and actual risks to the environment through waste and materials used and generate at the site, include:

- inappropriate storage or transportation of waste and materials, including chemicals leaking or spilling and contaminating environmental receptors such as surface and groundwater.
- inappropriate use of materials including chemicals resulting in contaminating environmental receptors such as surface and groundwater
- inappropriate disposal of waste and materials contaminating environmental receptors such as surface and groundwater and
- overuse of primary resources due to a lack of recycling and/or reusing waste and materials;

Environmental Management Infrastructure

In order to mitigate the above environmental risks, the following infrastructure has been installed:

- hard stands and bunded areas for the storage of dangerous wastes and materials;
- appropriate storage and handling vessels for dangerous waste and materials in accordance with manufacturers specifications and SDS; and
- waste storage areas so process by-products can be used as fuel in heat generation or sold to landscaping supply processors.

Environmental Management Tasks

Environmental Management Task	Responsibility	Frequency
Personnel operating traffic control gates and weigh bridges to record material and waste movements, load quantities and source/destinations of all trucks entering and leaving the site.	Site Gate Security	As required
Inspection of the storage of materials and containment infrastructure focusing on identified dangerous chemicals. Undertake corrective action as required.	Site Services Manager	Monthly
Ensure handling, storage and use of materials and waste in accordance with manufacturers specifications and MSDS.	Area Leader	Daily
The Site services Manager in junction with the Production Team and Area Managers to review waste generation, disposal and reuse for the site.	Site services Manager, Production manager	Yearly

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4.0 References

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- *Clean Air Act 1971 (NSW)*.
- *Clean Air (Plant and Equipment) Regulation 1997*.
- *National Environmental Protection Council, National Environmental Protection (Assessment of Site Contamination) Measure (1999)*.
- *NSW EPA, Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (2001)*.
- *NSW EPA, Approved methods for the sampling and analysis of air pollutants in New South Wales (2001)*.
- *NSW EPA, Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-liquid Wastes (1999)*.
- *NSW EPA, Guidelines for Assessing Service Station Sites (1994)*.
- *NSW EPA, Guidelines for NSW Site Auditor Scheme (1998)*.
- *Standards Australia, Australian Standard 1055 – 1997, Acoustics – Description and measurement of environmental noise (1997)*.
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Appendix A

Stormwater management plan

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Appendix B

Environmental Protection Licence
Number 887

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Appendix C

Environmental Protection Licence
Number 11229

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Appendix D

Environmental Protection Licence
Number 105

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Appendix E

PIRMP HPP site 1, 2 and LOSP Bathurst

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