



## WHITEHAVEN CHPP

Document Owner:	Environmental Superintendent
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### WHC\_PLN\_CHPP\_ENVIRONMENTAL MANAGEMENT PLAN

# WHITEHAVEN CHPP ENVIRONMENTAL MANAGEMENT PLAN

#### Document Control

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Refer to Section 8.4 for the change register.



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## 1 INTRODUCTION

Whitehaven Coal Limited (WHC) is required to prepare an Environmental Management Plan (EMP) for the Coal Handling and Preparation Plant (CHPP) and Rail Load-Out Facility to satisfy the Development Application (DA) 0079.2002 *Schedule 3, Condition 13*, and generally meet the requirements of AS/NZS ISO:14001 2016 Environmental Management Systems (ISO:14001 2016).

The CHPP and Rail Load-Out Facility is owned and operated by WHC and was originally approved by Gunnedah Shire Council on 7 September 2002 under DA 0079.2002. The location of the CHPP and Rail Load-Out Facility and its regional setting is shown on Figure 1.

DA 0079.2002 has been modified four times as described below:

- **Modification 1 (MOD1):** was approved 17 April 2008, for an upgrade to the CHPP and the construction of two additional reject ponds.
- **Modification 2 (MOD2):** was approved 23 December 2011, by the Department of Planning and Environment (DPE) (formerly DPIE and DP&E), which provided for the construction of three additional reject ponds and two settlement ponds to the immediate east of the existing pond footprint.
- **Modification 3 (MOD3):** was approved 24 August 2015, to rectify an administrative issue.
- **Modification 4 (MOD4):** was approved 12 September 2022, for the CHPP Life Extension Modification.

### 1.1 Project Description

Key aspects of CHPP are displayed in Figure 2 and include:

- Road delivery and stockpiling of raw coal.
- Preparation (sizing, washing, and blending) of coal.
- Stockpiling of product coal.
- Dispatch of export coal via rail and of limited domestic coal by road.
- Temporary stockpiling and subsequent dispatch of coarse washery rejects.
- Temporary on-site storage for fine washery rejects, dispatch for disposal at mine site.
- Water Management infrastructure includes a water pipeline, pumping stations, sediment basins and storage dams, and associated infrastructure for water management.
- Supporting power and communications infrastructure.



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- Administration, workshop, and related facilities.

#### 1.2 Relevant Site Contacts

The relevant site contacts for CHPP are listed below in Table 1.

**Table 1 Site Contacts**

Position	Contact Name <i>(as of February 2023)</i>
General Manager Operations	Dean Scott
Environmental Superintendent	Megan Martin
Environmental Advisor	Harry Mills
Community Hotline / Contact Number	1800 924 836



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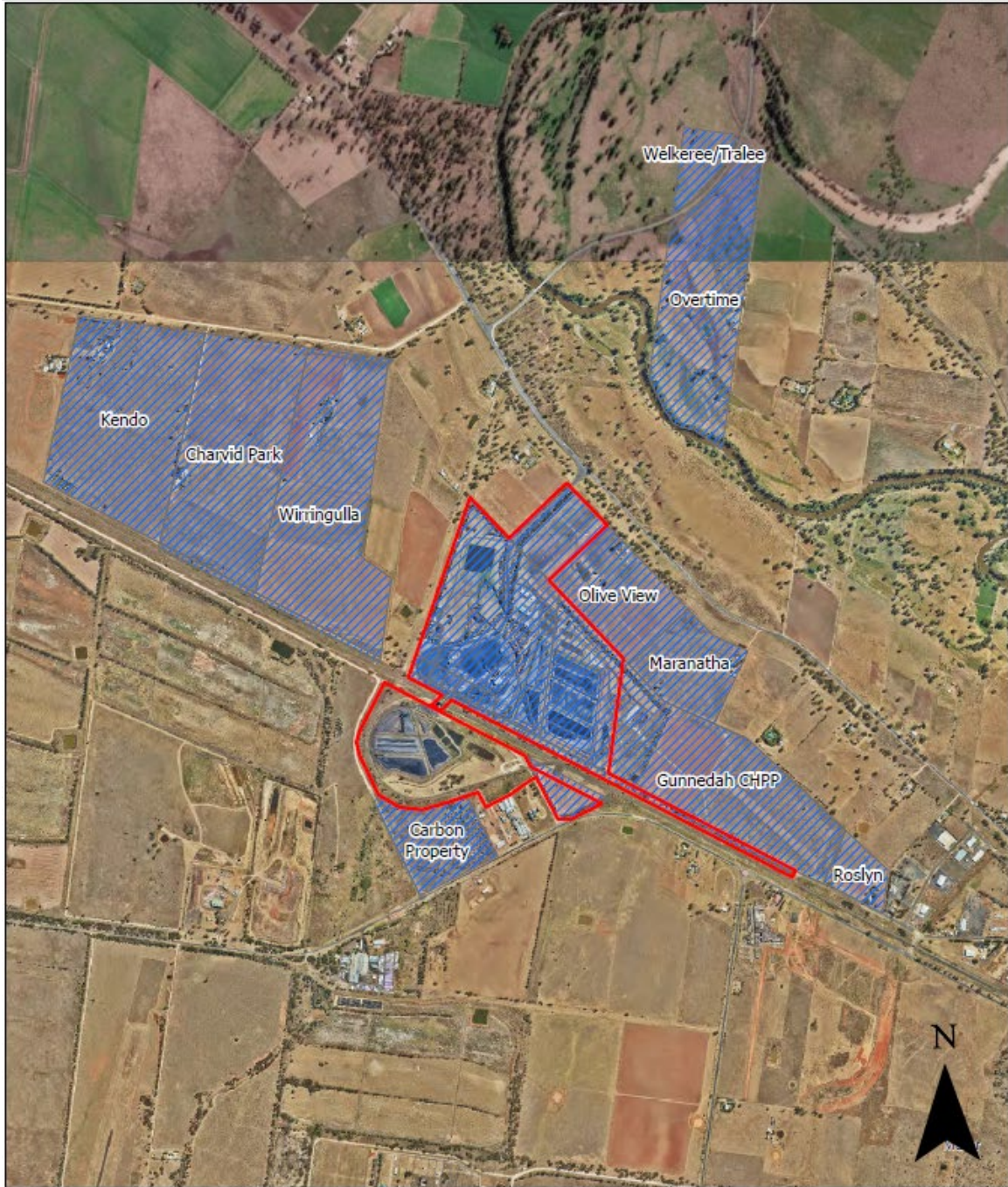
Figure 1 CHPP Site Locality



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	<h3>Figure 2</h3>	
<p>Datum: MGA2020 Zone 56 Author: O.Hulbert</p> <p>Image: March-23 Date: May-23 Size/Scale: 1:20,000</p>	<h2>CHPP Site Layout</h2>	<ul style="list-style-type: none"> <li> Property_2023</li> <li> CHPP_Project_Boundary</li> </ul>

Figure 2 CHPP Site Layout



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### 1.3 Objectives and Scope

This EMP has been developed to provide a framework for environmental management at CHPP or all activities relating to its operation. It will facilitate compliance with the conditions and commitments outlined in the CHPP Statement of Environmental Effects (2008) DA 0079.2002, *Schedule 3, Condition 13*.

The objectives of the EMP are to:

- Facilitate compliance with the relevant conditions of the DA 0079.2002 and align the CHPP Environmental Management System with ISO:14001 2016.
- Prevent or minimise environmental impacts that may result from the operation of the CHPP.
- Provide a strategic framework for environmental management including implementation and maintenance at CHPP.
- Outline personnel roles, responsibilities, and authorities in relation to environmental management at CHPP.
- Outline statutory approvals, legislation, and guidelines relevant to CHPP.
- Summarise the measures to minimise the environmental impacts from the CHPP on the surrounding community and environment.
- Identify the environmental monitoring programs and reporting processes at CHPP to keep the local community and relevant agencies informed and to provide a mechanism to respond to environmental issues and complaints effectively.
- Establish a system for the internal review and implementation of environmental management plans and procedures to ensure continuous improvement.
- Ensure activities are undertaken in accordance with the EMP.

The EMP is planned to be revised every three years. However, WHC will revise the EMP following any of the triggering events listed in Section 8.1.





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## 2 STATUTORY REQUIREMENTS

This EMP has been prepared to fulfil the requirements of relevant approval conditions, legislation, standards, and guidelines.

### 2.1 Project Approval Conditions

This EMP has been prepared to fulfil the requirements of relevant DA 0079.2002 conditions. This section outlines regulatory requirements in approvals, legislation, and guidelines applicable to CHPP, refer to Table 2 below.

**Table 2 Project Approval Conditions**

Requirement	Document Reference
<b>Schedule 2 - Administrative Conditions</b>	
Obligation to minimise harm to the environment 1. The Application shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	This EMP
<b>Schedule 3 - Environmental Performance, Management and Reporting</b>	
Environmental Management Plan 13. The Applicant must prepare and implement an Environmental Management Plan for the development to the satisfaction of the Secretary. This plan must:	This EMP
a) be submitted to the Secretary for approval by the end of June 2012	Previous version of this EMP (2012)
b) describe the roles and responsibilities of key personnel involved in environmental management;	Section 3.2
c) describe the relevant statutory requirements, limits or performance measures/criteria and the measures that would be implemented to comply with these requirements;	Sections 2 and 4.4.1 and 4.4.2.
d) detail the best practice management measures to be implemented, including all reasonable and feasible measures to:	Section 4
a) <i>minimise the operational, low frequency, and rail noise generated by the development;</i>	Section 4.4
b) <i>minimise offsite odour, fume and dust emissions;</i>	Section 4.5
c) <i>minimise visual and off-site lighting impacts; and</i>	Section 4.6
d) <i>avoid, minimise, reuse, and recycle all waste streams generated by the development.</i>	Section 4.7



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Requirement	Document Reference
e) include a program to monitor and report on the environmental performance of the development and the effectiveness of any management measures;	Section 7
f) include a protocol for managing, reporting, and responding to any complaints, incidents, or non-compliances; and	Sections 5, 6 and 7
g) include a protocol for periodic review of the plan.	Section 8.1
13A The Applicant must implement the approved Environmental Management Plan	Section 3.2

#### 2.1.1 Other Approvals

The CHPP also operates under other approvals including:

- Environment Protection Licence (EPL) 3637 issued under the *Protection of the Environment Operations Act 1997* (POEO Act), for the Scheduled Activity of Coal Works.
- Water licenses issued by DPI Water under the *Water Act 1912* and the *Water Management Act 2000*.
- Construction and Occupation Certificates for building works issued by Gunnedah Shire Council under Part 4A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

#### 2.2 Relevant Legislation

The key legislation relevant to the activities described in the approval and its supporting document include the following Acts and their respective regulations:

- EP&A Act.
- POEO Act.
- *National Parks and Wildlife Act 1974*.
- *Water Act 1912*.
- *Water Management Act 2000*.
- *Fisheries Management Act 1994*.
- *Local Government Act 1993*.
- *Contaminated Land Management Act 1997*.
- *Soil Conservation Act 1938*.
- *Waste Avoidance and Resource Recovery Act 2001*.



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- Protection of the Environment Operations (Waste) Regulation 2005.

## 3 IMPLEMENTATION AND OPERATION

### 3.1 Risk Management

WHC uses a risk-based approach to minimise potential impacts on the environment.

WHC has undertaken a Broad-Brush Risk Assessment (BBRA) for the Gunnedah Open Cut (GOC) operations (including the CHPP) to identify key environmental aspects and issues associated with their operations. The BBRA identifies critical controls required to be implemented onsite to prevent non-compliance with environmental conditions of consent, mining leases and relevant licence and to manage environmental obligations. The BBRA will be regularly reviewed to maintain currency with changes to operations and the associated risk profile.

Management plans and procedures are prepared to address key environmental risks and aspects and will be maintained to manage the higher-level risks associated with the CHPP.

### 3.2 Roles and Responsibilities

Overall site-based responsibility for all activities and all personnel on the site, including their compliance with all applicable laws, regulations, licenses, approvals, the conditions of DA 0079.2002 and achievement of the desired environmental outcomes will be the responsibility of the CHPP Manager.

Though retaining the responsibilities identified above, the CHPP Manager and Environmental Officer may, at their discretion, delegate specific tasks to suitably qualified and/or experienced operational personnel and/or consultants.

All mine employees, contractors and visitors on the site have an overall site-based responsibility to conduct all activities in compliance with the applicable laws, regulations, licences, and approvals detailed in Section 2. This plan will be implemented and the roles and responsibilities to achieve implementation of this EMP are outlined below in Table 3.

**Table 3 EMP Roles and Responsibilities**

Role	Responsibility
CHPP Manager	<ul style="list-style-type: none"> <li>• Ensure all contractors, sub-contractors and service-personnel are appropriately qualified and/or licenced to undertake the required work;</li> <li>• Ensure all operations are undertaken in accordance with relevant environmental legislation;</li> <li>• Providing the final sign-off and/or authorising distribution of, all environmental reports / management plans etc;</li> <li>• Workforce induction / training;</li> <li>• Communication with statutory authorities and the community; and</li> <li>• Ensure routine inspections are undertaken by a responsible person; and</li> </ul>



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Role	Responsibility
	<ul style="list-style-type: none"> <li>Ensure all operations are undertaken in accordance with relevant environmental legislation and approvals.</li> </ul>
Environmental Officer	<ul style="list-style-type: none"> <li>Assist in ensuring all operations are undertaken in accordance with relevant environmental legislation and approvals;</li> <li>Coordination and assisting with implementation of management plans;</li> <li>Receipt of and response to complaints;</li> <li>Considering and advising on matters identified in the development consent and compliance with those conditions, and other environmental matters;</li> <li>Co-ordination / management of monitoring programs and reporting;</li> <li>Site rehabilitation;</li> <li>Post-induction education and contact with site-based and contracted employees on environmental matters, where required; and</li> <li>Maintenance of the WHC website.</li> </ul>
Supervisor's Role	<ul style="list-style-type: none"> <li>Ensure activities under their control are undertaken in accordance with this EMP;</li> <li>Bring to the attention of the Environmental Officer all complaints at the first available opportunity; and Responsibilities.</li> <li>Maintain an awareness of environmental issues and report any possible non-conformances to the Environmental Officer.</li> </ul>
Employees and Contractors	<ul style="list-style-type: none"> <li>Conduct all activities in accordance with this EMP;</li> <li>Bring to the attention of their supervisor/manager all complaints at first available opportunity; and</li> <li>Maintain an awareness of environmental issues and report any possible non-conformances to their supervisor/manager.</li> </ul>

Though retaining the responsibilities identified above, the CHPP Manager and Environmental Officer may, at their discretion, delegate specific tasks to suitably qualified and/or experienced operational personnel and/or consultants.

### 3.3 Training and Competencies

The CHPP will implement a training program to promote general environmental awareness and an understanding of individual responsibility. All contractors and personnel will undergo a generic induction level of training as a prerequisite to commencing work on site. The training program will aim to maintain an awareness of environmental issues and actively promote environmental understanding across the CHPP workforce.

In addition to the induction course, environmental awareness and understanding will be maintained through additional training determined on an as need basis through toolbox talks and presentations to help refresh environmental awareness and notify CHPP personnel of any new operational practices/requirements.



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## 4 ENVIRONMENTAL MANAGEMENT AND MONITORING

This section describes the Environmental Management System process at CHPP, and the range of management plans implemented by CHPP to mitigate impacts from operations on the environment and community and the related risks to compliance.

The general CHPP site layout, land ownership and environmental monitoring locations are shown in Figure 3.



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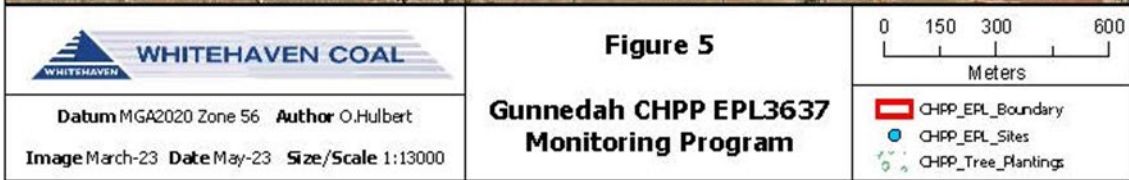


Figure 3 Environmental Monitoring Locations



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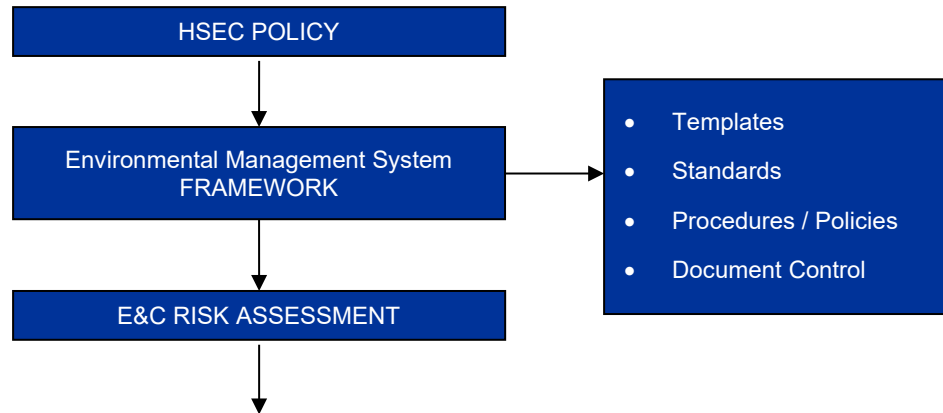
#### 4.1 Environmental Management Structure

CHPP environmental management structure sits within the overarching WHC Environmental Management System framework. The framework includes various site-specific requirements that lay out the expectations in line with the strategic direction (refer to Figure 4) the various documents have been developed to ensure CHPP related activities are undertaken in a manner that minimises potential harm to the environment.

The framework has adopted the Plan Do Check Act (PDCA) model to define a standard approach to environmental management in general accordance with ISO:14001 2016.

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WHC Corporate Document
CHPP Document(s)



CHPP ENVIRONMENTAL MANAGEMENT PLAN			
<i>Plan</i>	<i>Do</i>	<i>Check</i>	<i>Act</i>
Compliance Obligations	Roles and Responsibilities	Monitoring and Evaluation	Management Review
Objectives and Targets	Training and Awareness	Non-conformance and Corrective Actions	
Environmental Aspects	Communication	Record Control	
Risks and Opportunities	Documentation and Document Control	Internal Audit	
	Operating Procedures		
	Emergency Preparedness		

**Figure 4 CHPP Environmental Management Framework**





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## 4.2 Health Safety Environment and Community Policy

CHPP operates under WHC's Health Safety Environment and Community Policy, 2020 (HSEC Policy) which sets out the company's aims and values and applies to all employees and contractors. The HSEC Policy (Appendix A) has been endorsed by the Managing Director and CEO and is a commitment from top management to all WHC's employees.

## 4.3 Documentation

A register of documentation relevant to this EMP such as management plans, procedures, forms, and registers will be maintained by the CHPP environmental personnel.

Management plans required under the conditions of the approval are outlined below in Table 4.

**Table 4 CHPP Management Plans**

DA 0079.2002 Requirement	Plan
<i>Schedule 3, Condition 13</i>	Environmental Management Plan
<i>Schedule 3, Condition 14</i>	Water Management Plan
<i>Schedule 3, Condition 15</i>	Rehabilitation Management Plan

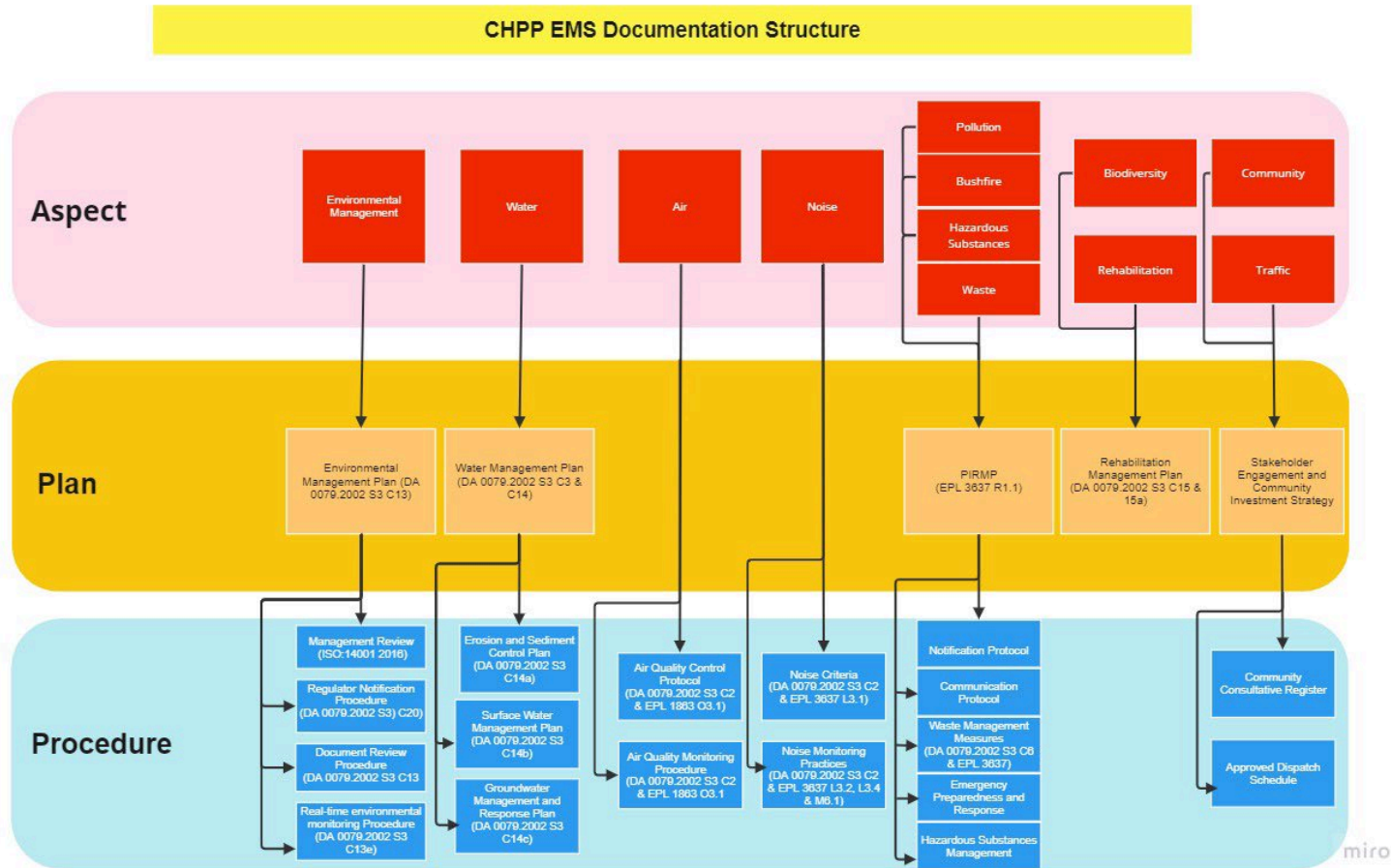
Copies of the various plans required under the conditions of DA 0079.2002 (as listed above) are available on the WHC website. Figure 5 details the structure of the Environmental Management System from Aspect to individual Procedure document level.



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**Figure 5 CHPP Environmental Management System Document Structure**



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#### 4.4 Noise

Schedule 3, Condition 1 of DA 0079.2002 contains the following condition in relation to noise:

The Applicant shall:

- comply with the noise limits specified in any EPL for the development;
- minimise the operations, low frequency, and rail noise generated by the development;
- ensure that its rail spur is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142) to the satisfaction of the Secretary.

##### 4.4.1 Noise Limits

EPL 3637 specifies the following in relation to noise limits.

L3.1 Noise generated at the premises must not exceed the noise limits outlined in Table 5 below:

Table 5 CHPP Noise Criteria – Coal Works

Location	Day	Evening	Night	
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	LA1 (1 minute)
Non project related residences adjacent to Kamilaroi Highway.	38	37	35	45
Non project related residences adjacent to Quia and Torrens Rd.	39	35	35	45
Non project related residences to north-west of premises along Wirringulla Road	35	35	35	45

L4.2 For the purpose of the table above:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays.
- Evening is defined as the period from 6pm to 10pm.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.

##### 4.4.2 Management Measures

Specific management measures currently in place at the CHPP include the following:



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- Contractors, including all personnel and subcontractors, will undergo environmental awareness training (including Noise control) via the generic induction and/or toolbox talk process.
- Application of a first gear reverse policy on dozers operating on the coal stockpile. The application of this practice reduces the potential for noise impacts because of track clatter. Further to this, the site operates sound attenuated dozers.
- Any new earth moving equipment purchased for the CHPP operation will be fitted with noise sound suppression.
- An assessment of the plant was undertaken to determine options to reduce vibration impacts. The assessment recommended adjusting the balance of the screens, which has been completed.
- WHC has also acquired several properties in immediate proximity to the site as buffer lands from the impact of operations (refer to Figure 2).
- All trains that access the CHPP rail loop are required to operate on the NSW rail network under the terms of the ARTC's EPL and noise limits. The rail providers have been made aware of potential noise generation from their activity (e.g., bunching of wagons and wheel squeal).
- All complaints will be managed as outlined in Section 5.4.



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#### 4.4.3 Monitoring

Conditions L3.2 to L3.4 of EPL 3637 note specific requirements in relation to noise monitoring practices including distances from residences, meteorological conditions, and private agreements.

Monitoring to determine compliance will be undertaken on a quarterly basis in accordance with the following EPL 3637 requirements for the monitoring point detailed in Table 6:

*M6.1 For each monitoring point specified below, the licensee must monitor the noise parameter specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the columns.*

**Table 6 Points N1**

Parameter	Units of Measure	Frequency	Sampling Method
Ambient Noise	LAeq(15 minutes) LAmax LA1 LA10 LA90 LAmin LA1(1 min)	Quarterly.  Monitoring to be undertaken at a minimum of a 15-minute period during the day, evening, and night-time periods.	Type 1 Noise Meter – attended monitoring.  Monitoring must be undertaken of representative operations at the premises including train loading operations to assess noise impacts from conveyors and loading operations.

For the purpose of this condition, the noise monitoring locations are described below in Table 7.

**Table 7 Noise Monitoring Location**

EPA Identification No.	Description of Location
N1	Within 30m of the residence on the Wicks property at the point labelled as EPA ID# N1 on the map titled 'EPL 3637 Licence Variation Sept 2015' dated 14/9/2015 and received by the EPA 15/9/2015 (attached to DOC15/221987-06).

Noise monitoring is undertaken in accordance with the following guidelines:

- NSW EPA (2000) – Environmental Noise Management – NSW Industrial Noise Policy.
- EPA (2013) Noise Guideline for Local Government.
- NSW EPA (2011) – NSW Road Noise Policy.



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## 4.5 Air Quality

General requirements in relation to air quality at the CHPP are outlined below.

*Schedule 3, Condition 2 of DA 0079.2002*

*The Applicant shall:*

- a) minimise offsite odour, fume and dust emissions of the development;*
- b) minimise the surface disturbance on site and revegetate disturbed areas as soon as practicable;*

*to the satisfaction of the Secretary.*

Condition 4 of EPL 3637 outlines the requirements for operating conditions as follows:

*O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.*

*O3.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times except during loading and unloading.*

### 4.5.1 Management Measures and Monitoring

Air quality management and monitoring is undertaken in accordance with the Air Quality Control Protocol (attached in Appendix B). The following key air quality management measures from the protocol are implemented at site:

Pro-active:

- Automated fixed water sprays.
- Orientation of coal stockpiles to minimise exposure to dominant winds.
- Limitation on height of stockpiles to 12m.
- Use of designated water carts.
- Stockpile dozers limited to first gear in reverse.

Re-active:

- Automatic wind speed alerts to the CHPP control room which trigger air quality inspections.
- Visual observations to confirm any presence of dust lift-off.
- Investigation upon receipt of non-compliant dust results.

Air quality monitoring is undertaken in accordance with the following standards and guidelines:



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- AS / NZS 3580:2007 – Methods for Sampling and Analysis of Ambient Air: Guide to Siting Air Monitoring Equipment.
- AS 3580.14-2011 – Methods for Sampling and Analysis of Ambient Air – Meteorological Monitoring for Ambient Air Quality Monitoring Applications.
- AS 3580.10.1:2003 – Methods for Sampling and Analysis of Ambient Air: Determination of Particulate Matter – Deposited Matter – Gravimetric Method.
- AS / NZS 3580.9.6:2003 – Methods for Sampling and Analysis of Ambient Air: Determination of Suspended Particulate Matter, PM10 High Volume Sampler with Size – Selective Inlet – Gravimetric Method.
- AS / NZS 3580.9.3:2003 – Methods for Sampling and Analysis of Ambient Air: Determination of Suspended Particulate Matter, Total Suspended Particulate Matter (TSP) High Volume Sampler – Gravimetric Method.
- NSW DEC (2006) – Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.

#### 4.6 Visual and Lighting

Schedule 3, Condition 4 and 5 of DA 0079.2002 includes the following conditions in relation to visual amenity and lighting:

4. *The Applicant shall undertake tree planting on the eastern and northern boundary of the additional reject ponds (9, 10 and 11) and settlement ponds (8 and 9), within 6 months of commencement of construction works, to the satisfaction of the Secretary.*
5. *The Applicant shall:*
  - a) *minimise the visual and off-site lighting impacts of the development;*
  - b) *ensure no outdoor lights shine above the horizontal; and*
  - c) *ensure that all external lighting associated with the development complies with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting or its latest version;*

*to the satisfaction of the Secretary.*

##### 4.6.1 Management Measures

Tree planting on the eastern and northern boundary of the additional reject ponds and settlement ponds have occurred and are maintained in accordance with the requirements of Schedule 3, Condition 4 of DA 0079.2002.



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All lighting is directed below the horizontal. Any complaints in relation to night lighting are taken seriously, and, in the event that lighting is causing an unacceptable impact at an adjoining residence, and can be resolved by redirection, this will be undertaken should it be reasonable and feasible to do so.

The site has not received complaints regarding light impacts from dozers working at elevation. As a result, no changes or additional management measures specific to dozer lighting are proposed.

All external lighting associated with the development has been assessed against *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version, and any suggested improvements completed. All new lighting, and onsite replacements or upgrades, will be compliant with AS4282.

#### 4.7 Waste

Waste is managed in accordance with *Schedule 3, Condition 6* of DA 0079.2002:

*The Applicant shall ensure that the waste generated by the development is appropriately stored, handled and disposed of in a lawful manner.*

*Condition 3* of the EPL 3637 outlines the requirements for limit conditions as follows:

*L2.1 The licensee must not cause, permit, or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.*

*L2.2 This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if those activities require an environment protection licence.*

##### 4.7.1 Management Measures

Activities are carried out in a competent manner which includes the processing, handling, transport and storage and disposal of waste generated by the CHPP operations. All waste at CHPP is managed in accordance with the NSW EPA Waste Classification Guidelines 2014 and adopts the EPA's Waste Management Hierarchy, as displayed in Figure 6 below.

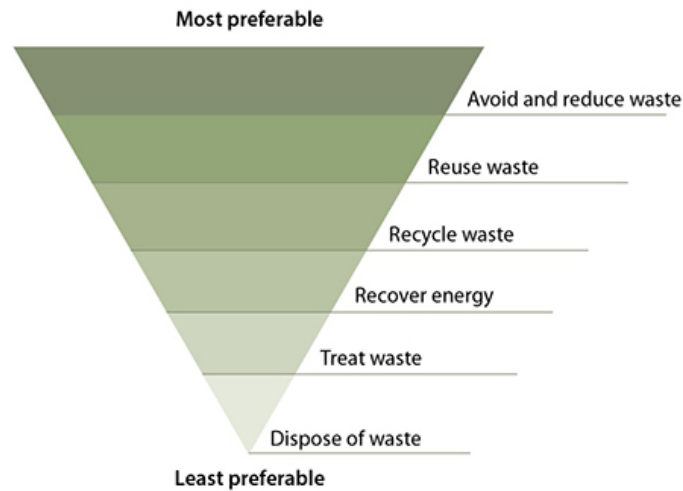




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**Figure 6 EPA's Waste Management Hierarchy**

Examples of additional management measures include:

- CHPP will maintain its premises in an appropriately clean and tidy condition.
- General waste is disposed of in skip bins which are collected by a licensed waste contractor for disposal at the Gunnedah Shire Council Landfill.
- Waste oil, oil filters and scrap metal are collected by licensed contractors for recycling.
- Packaging (e.g., 1000L pods) is reused where possible or disposed of when damaged beyond repair.
- Recyclable wastes from administration facilities are disposed of in provided bins which are collected and delivered to the Gunnedah Recycling Centre.
- Coal reject is transported to former and/or currently operating open cut mines for emplacement in voids, in accordance with the relevant approvals of those sites.



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## 4.8 Hazardous Substances Management

Hazardous substances at CHPP are managed in accordance with the Australian Standard AS 1940-2004: *The storage and handling of flammable and combustible liquids* (AS 1940-2004).

### 4.8.1 Management Measures

Management measures for hazardous substances at CHPP includes:

- Appropriate training for employees and contractors.
- Provision of Safety Data Sheets (SDSs) for all products.
- Emergency procedures and emergency response equipment (eyewashes, first aid kits, spill kits, firefighting equipment etc.).
- All plant and equipment installed on the premises or used in connection with the licensed activity is maintained in a proper and efficient condition and is operated in a proper and efficient manner.
- All hydrocarbons are securely stored in appropriate storage tanks or containers in accordance with AS 1940-2004.
- All runoff from wash-down areas and workshops is directed to oil/water separators and containment systems. These systems are maintained and cleaned out as required.
- Used oil filters are placed in dedicated self-bunded industrial bins or bunded containers and collected as required by the waste management contractor. The oil is drained from the used filters and recycled, while the remaining filter is recycled as scrap steel if possible, or otherwise disposed of as general waste.
- Hydraulic hoses are placed in dedicated self-bunded industrial bins or bunded containers and collected as required by the waste management contractor for offsite treatment or disposal.
- Oil-soaked rags are placed in dedicated wheelie bins or other specific receptacles, which are collected as required by the waste management contractor for offsite treatment or disposal. Dirty rags and those not containing free liquid will be managed as per general solid waste.
- Empty oil drums with no free liquid will be managed as per scrap metal.

Refer to Section 6.1 for further details on Emergency Preparedness and Response.



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## 4.9 Traffic Management

Coal from Rocglen, Tarrawonga and Vickery mines can be processed at the Whitehaven CHPP. Rocglen Mine is in closure and is not currently producing coal. Coal will be transported to the CHPP for processing from Tarrawonga Coal Mine and Vickery Coal Mine in accordance with their respective development consent approval conditions and the approved Traffic Management Plan (*WHC-PLN-TAR/ROC/VCM-Traffic Management Plan*).

In accordance with *Schedule 2 Condition 6 and 7* of DA 0079.2002:

### Coal Processing

6. *The Applicant shall not process more than 3.0 million tonnes of ROM coal on the site in a calendar year.*

### Coal Transport

7. *The Applicant shall not dispatch more than 4.1 million tonnes of coal from the site in a calendar year.*

Compliance with these limits is managed by the WHC logistics team and monitored monthly.

### 4.9.1 Management Measures

In addition to the above controls, each transport route has been constructed specifically to project approval requirements with intersections and roads constructed with the road's authority approval. Refer to Section 4.4 for the specified noise limits.

## 4.10 Water

*Schedule 3, Conditions 3 and 14* of DA 0079.2002 refers to water management requirements for the CHPP. These requirements are addressed in the CHPP Water Management Plan that includes erosion sediment control, surface, and groundwater management.

The Water Management Plan also includes details of the monitoring and reporting requirements of EPL 3637.

## 4.11 Cultural Heritage

All development at the CHPP site has been undertaken in accordance with appropriate cultural heritage investigations required at the time. Additional disturbance at the CHPP is unusual and generally associated only with the relevant approvals being received, as was the case with the development of the additional reject ponds.

### 4.11.1 Management Measures



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New disturbance activities will only be undertaken following appropriate cultural heritage assessment, with surface disturbance works subject to pre-clearance survey by representative Aboriginal Stakeholders. WHC will make appropriate contact with the Registered Aboriginal Parties (RAPs) for the CHPP and a suitably qualified Archaeologist in advance of any surface disturbance activity to arrange for appropriate survey work in advance.

### 4.12 Biodiversity and Rehabilitation

Biodiversity management during current operations (i.e., prior to final rehabilitation) will comprise planting and maintenance of vegetation screens and restricting unnecessary disturbance.

As required by *Schedule 3, Condition 15 and 15A* of DA 0079.2002, WHC will prepare a Rehabilitation Management Plan in consultation with the EPA, DPE Water, and Gunnedah Shire Council to the satisfaction of the Secretary for the CHPP. The Rehabilitation Management Plan will be submitted to the Secretary for approval within 12 months of the determination of MOD4 by 12 September 2023.

Implementation of the approved Rehabilitation Management Plan will be reported within the Annual Review (see Section 7.3.1) each year and made available on the WHC website.

*15. The Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:*

- (a) be prepared in consultation with the EPA, DPE Water and Council;*
- (b) be submitted to the Secretary for approval within 12 months of the determination of Modification 4;*
- (c) describe:*
  - (i) the overall rehabilitation outcomes for the development including facility closure, final landform and final land use;*
  - (ii) the measures to be undertaken to ensure compliance with the rehabilitation objectives in this consent, including the measures that would be undertaken to rehabilitate the various domains of the development, including reject ponds, water storages, stockpile areas, and site infrastructure;*
  - (iii) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggers for remedial action, where these performance or completion criteria are not met;*

*15A The Applicant must implement the approved Rehabilitation Management Plan*

#### 4.12.1 Management Measures



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The Rehabilitation Management Plan (RMP) will be developed to meet the requirements of the Resource Regulator and to the satisfaction of the Planning Secretary. In order to achieve this WHC will:

- Undertake a rehabilitation risk assessment to ascertain the risks associated with rehabilitation of this site which will inform the development of mitigation measures to be included in the final RMP;
- Describe the vegetation type/structure to be targeted for the ecosystem establishment phase of rehabilitation;
- Document the inventory of growth medium resources on site; and
- Describe the rehabilitation objectives and completion criteria for each final land use domain.

#### 4.13 Bushfire

In accordance with *Schedule 3, Condition 10* of DA 0079.2002:

*The Applicant shall:*

- (a) ensure that the development is suitably equipped to respond to any fires on site; and*
- (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.*

*the applicant shall ensure the development is suitably equipped to respond to any fires on site and assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.*

##### 4.13.1 Management Measures

CHPP has an approved Pollution Incident Response Management Plan (PIRMP), refer to Section 6.1 for more details on emergency preparedness and response. The CHPP maintains water carts on site with water cannons that are suitably equipped to respond to fires on site. Any assistance provided to the Rural Fire Service (RFS) would necessarily be at the request of the RFS.



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## 5 COMMUNICATION AND CONSULTATION

### 5.1 Internal Communication

Information about the CHPP Environmental Management System will be communicated internally among all levels and functions of the CHPP. The aim of the communication program will be to maintain and foster good working relations between operational departments and personnel. Relevant operational departments and personnel will be notified of any proposed changes to operations, environmental risks and required environmental remedial works. Environmental performance and any environmental issues will be reported to personnel and contractors using the following methods:

- Environmental training and awareness during the induction program.
- Updates using briefing notes or at toolbox talk sessions as required.
- The EMP being available on the WHC internal server for ease of access and use by CHPP personnel.
- Provision of the EPL monthly monitoring on the WHC website.
- Internal reports/memos/presentations/notice boards prepared by the Environment team as required.

### 5.2 External Communication

WHC will implement external communication avenues to ensure up to date information on CHPP activities, management systems and environmental performance are readily available to the public and stakeholders. In accordance with *Schedule 3 Condition 18* of DA 0079.2002, the WHC website will include up to date copies of:

*18. The Applicant shall:*

*(a) make the following information publicly available on its website:*

- *the EIS;*
- *all current statutory approvals for the development;*
- *approved plans required under the conditions of this consent;*
- *a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans approved under the conditions of this consent or the EPL;*
- *a complaints register, which is to be updated on a monthly basis;*



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- any other matter required by the Secretary; and
- (b) keep this information up to date, to the satisfaction of the Secretary.

### 5.3 Stakeholders

In general accordance with ISO:14001 2016 requirements, WHC is committed to active engagement with stakeholders to understand the environmental, social and governance aspects of WHC operations that matter to them. The Stakeholder Engagement and Community Investment Strategy has been developed to:

- Make clear WHC commitment to the local community and region.
- Explain WHC operations.
- Share community feedback received over time (be that in person, through our regular qualitative and quantitative research, or at community events).
- Communicate addressment of feedback.

Implementing the Stakeholder Engagement and Community Investment Strategy is part of WHC's commitment to best practice engagement across the business. An annual internal review of progress and updates to the Stakeholder Engagement and Community Investment Strategy will be made as required.

WHC have established a register of relevant stakeholders and their interest areas modified below in Table 9, below (updated in their annual Sustainability Report which is published on the WHC website).

**Table 6 List of key stakeholders**

Stakeholder Group	Interest Area
Employees and Contractors	<ul style="list-style-type: none"> <li>• Health and safety at work</li> <li>• Job security</li> <li>• Remuneration and working conditions.</li> <li>• Learning and development opportunities</li> <li>• Diversity and inclusion</li> <li>• Business model</li> </ul>
Local Communities	<ul style="list-style-type: none"> <li>• Environmental, social, and cultural heritage impacts.</li> <li>• Local employment and procurement.</li> <li>• Community investment, including training and education.</li> <li>• Sustainable, local economic diversification.</li> <li>• Transparency and communication.</li> </ul>
Governments including regulators	<ul style="list-style-type: none"> <li>• Regulation and compliance</li> <li>• Mine extensions and approvals</li> <li>• Mine closure planning</li> <li>• Royalties and taxes</li> <li>• Balancing economic, social, and environmental objectives</li> </ul>
Traditional owners	<ul style="list-style-type: none"> <li>• Local procurement</li> </ul>



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Stakeholder Group	Interest Area
	<ul style="list-style-type: none"> <li>• Ongoing partnerships</li> <li>• Management of suppliers</li> </ul>
Non-government organisations	<ul style="list-style-type: none"> <li>• Environmental, social, and cultural heritage impacts</li> <li>• Compliance</li> <li>• Community engagement</li> <li>• Transparency</li> </ul>
Unions	<ul style="list-style-type: none"> <li>• Health and safety at work</li> <li>• Job security</li> <li>• Remuneration and working conditions</li> </ul>

### 5.4 Community Complaints

WHC maintains a feedback and complaints hotline (Phone number 1800 924 836).

The objective of the hotline will be to enable the community to raise concerns with the operation of the Project, possible environmental impacts, complaints, or to seek further information on environmental aspects. The hotline will be the principal method for recording any community complaints and issues. However, correspondence will also be accepted and promoted using any appropriate medium including the WHC website, e-mail, or letter.

All complaints received will be managed as per Section 5.4.1 below.

#### 5.4.1 Complaints Management

Conditions M4 and M5 of EPL 3637, and Schedule 3, Condition 13(f) of DA 0079.2002 specify requirements in relations to complaints management and are addressed below.

A complaints management protocol has been developed to ensure an appropriate and consistent level of reporting, response and follow-up is adopted by the CHPP. At a minimum, the following complaints management protocol will be followed on all complaints received:

- A publicly advertised telephone complaints line will be in place to receive complaints during operating hours and record complaints at other times.
- Each complaint received will be recorded on a Complaints Register, which will include the following details:
  - The date and time of complaint.
  - Any personal details the complainant wishes to provide, or if no such details are provided, a note to that effect.
  - The nature of the complaint.
  - The action taken by WHC in relation to the complaint, including any follow-up contact





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with the complainant.

- If no action was taken by WHC, the reason why no action was taken.
- The Environmental Department will be responsible for ensuring that an initial response is provided within 24 hours of receipt of a complaint (except in the event of complaints recorded when the site is not operational).
- The cause of the complaint and any required remedial actions identified.
- Additional measures will be undertaken as required to address the complaint. This may include visiting the complainant or inviting the complainant to the mine site.
- If necessary, the Group Manager – Environment will follow up to confirm the source of the complaint is adequately mitigated.
- A copy of the Complaints Register will be kept by WHC and uploaded to the WHC website monthly.
- The details of each complaint and any response will be documented in the complaints register and will be uploaded to the WHC website and reported in the relevant Annual Review.
- The record of a complaint must be kept for at least 4 years after the complaint was made.
- The record must be produced to any authorised officer of the EPA who asks to see them.

Based on the nature of individual complaints, specific contingency measures may be implemented to the (reasonable) satisfaction of the complainant, see Section 5.4.2 below.

#### **5.4.2 Dispute Resolution**

If any complainant does not consider WHC response or reactions adequately address their concerns, the following process may be adopted.

- If possible, meeting will be convened with the Group Manager – Environment, Group Manager – Community Relations and Property and/or CHPP Manager to seek resolution of the matter.
- Where required, WHC will undertake reasonable additional measures to effectively resolve the issue and satisfy all parties involved.
- The complainant will be provided with a written response from WHC detailing the results of investigations to date and the agreed actions to be taken in respect of the measures to be implemented.
- If requested, the General Manager and/ or Environmental Superintendent will convene a follow-up meeting with the complainant.



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If the complainant believes the matter remains unresolved and no further agreement can be reached as to additional measures to be undertaken, then they may refer the matter to the Secretary of DPE (the Secretary).

## 6 EMERGENCIES

Response to emergency situations will incorporate three basic steps:

1. **Notification of the emergency (internal and/or external).**
2. **Protection of personnel as priority; and**
3. **Protection of the environment, plants, and equipment.**

Initially, both steps (2) and (3) would use internal resources, with help from external resources called upon when necessary.

In accordance with DA 0079.2002, the definition of an incident is: *A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this consent.*

Incidents that cause (or may cause) material harm to the environment will be reported in accordance with *Schedule 3, Condition 20* of DA 0079.2002 (refer to Section 7).

### 6.1 Emergency Preparedness and Response

WHC has developed a PIRMP as part of the requirements of EPL 3637 and in accordance with Part 5.7 of the POEO Act to provide emergency procedures for environmental incidents for the CHPP.

Should an emergency occur the aim of any emergency procedure is to:

- Take immediate action to minimise environmental harm and to mitigate the environmental impact.
- **If there is a risk of material harm to the environment or an immediate threat to human health or property, prior to any other action, WHC must notify any affected residence, Fire and Rescue NSW, NSW Police and NSW Ambulance – by calling 000.**
- Contact other response and regulatory agencies after that to satisfy notification obligations.
- Implement corrective action to avoid a recurrence (refer to Section 7).

Following an emergency incident, these procedures will be carefully reviewed to ensure the response is practical and appropriate in practice and to implement corrective actions accordingly.



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### 6.1.1 PIRMP Testing

At the CHPP, the PIRMP is established and maintained in accordance with the NSW EPA Guideline: Pollution Incident Response Management Plan 2022. To ensure its effectiveness, the PIRMP is tested at least once every 12 months, and within one month of any pollution incident occurring which caused or threatened material harm to the environment as defined in Section 7.2. PIRMP tests are conducted to simulate emergency scenarios and evaluate the plan's response and are updated accordingly.

Additionally, the PIRMP undergoes regular updates as part of the document control process (refer to Section 8.1.1) to reflect any changes in procedures or regulations.

## 7 REPORTING AND CORRECTIVE ACTIONS

The corrective actions and auditing procedures have been developed to promote continuous review and improvement in accordance with the relevant regulatory requirements.

### 7.1 Incident Response and Corrective Actions

Incident reporting will be undertaken in accordance with *Schedule 3, Condition 20* of DA 0079.2002:

*The Applicant must immediately notify the Department and any other relevant agencies after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the application number and name) and set out the location and nature of the incident.*

The CHPP Environmental Department will be responsible for evaluating the appropriate response if an environmental incident is identified.

Should an environmental incident occur, WHC will action an appropriate response by:

1. Taking action to control and correct it, appropriate to the significance of the effects.
2. Initiating the PIRMP where required and taking measures to "control, contain and clean-up".
3. Immediately inform the Supervisor of the relevant work area of any incidents. The Supervisor or Operations Manager will inform the Environmental Department of any environmental incidents.
4. If there is "an immediate threat to human health or property" an Emergency Response will be required. Any potentially affected landholder, tenant or lessee will be notified about the incident immediately and informed as to any appropriate actions.
5. The supervisor will initiate any additional containment/control of the incident and coordinate required clean-up activities. The supervisor will continue to liaise with the Environmental



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Department to determine any relevant authorities that may need to be notified.

6. The Environmental Department will record any environmental incidents in an incident register including any actions undertaken.
7. If the Environmental Department determines the incident is notifiable (i.e., caused or threatens to cause material harm to the environment or for any other relevant reason), then, in consultation with the Group Environmental Manager, they will notify the relevant agencies immediately after becoming aware of the incident.
8. Evaluating the need for action to eliminate the causes of the environmental incident, in order that it does not recur or occur elsewhere.

The incident report will include as a minimum:

- Summary of the incident;
- Outcomes of an incident investigation, including identification of the cause of the incident;
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- Details of any communication with other stakeholders regarding the incident.

## 7.2 External Notification Procedure

Under Part 5.7 of the POEO Act and in accordance with the requirements of *Schedule 3, Condition 20* of DA 0079.2002 and EPL 3637 R2, following “...*any incident that has caused, or threatens to cause, material harm to the environment...*” the CHPP Environmental Department, in consultation with the Group Environmental Manager, will:

- Notify any relevant regulatory authorities immediately; and
- Provide a detailed report on the incident, and such further reports as may be requested within 7 days of the date on which the incident occurred.

Material harm to the environment is defined in section 147 of the POEO Act to include:

#### *147 Meaning of material harm to the environment*

##### *(1) For the purposes of this Part:*

##### *a. harm to the environment is material if:*

- i. it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
- ii. it results in actual or potential loss or property damage of an amount, or*



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*amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*

- b. loss includes the reasonable costs and expenses that would be incurred by taking all reasonable and practicable measures to prevent, mitigate or cause good harm to the environment.*

*(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.*



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### 7.2.1 Non-Compliances

In accordance with *Schedule 3, Condition 21* of DA 0079.2002:

*Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.*

*Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.*

Compliance with all plans will be the responsibility of all personnel (staff and contractors) employed on, or in association with the CHPP, and will be developed through promotion of site ownership under the direction of the CHPP Manager and Environmental Department.

The Environmental Department and/or CHPP Manager will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance, with all directions provided to the relevant party in writing and/or diarized.

Any non-compliance with regulations, licences, or approvals will be reported to the relevant authority, together with details of the corrective actions taken to avoid future occurrences.

Non-compliances with the requirements of the CHPP EPL will also be reported in each EPL Annual Return.

### 7.3 Scheduled Reporting

Annual Reporting as required by *Schedule 3 Condition 16* of DA 0079.2002:

*The Applicant shall report annually on the environmental performance of the development, in accordance with the requirements of the EPL.*

WHC will report annually on the environmental performance of the development, in accordance with the requirements of the EPL. Reporting for the EPL is addressed via the Annual Return, refer to Section 7.3.1. Publication of the EPL monitoring data will occur monthly via the WHC website.

Further reporting, in accordance with the *Schedule 3 Condition 17 and 18* of DA 0079.2002, will comprise:

17. *The Applicant shall:*

(a) *keep records of the:*



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- amount of coal transported from the site (on a monthly basis); and
  - date and time of each train movement generated by the development; and
- (b) make these records available on its website at the end of each calendar year.

Making information listed in Section 5.2 of this EMP publicly available on the WHC website.

#### 7.3.1 EPL Annual Return

As required under *Schedule 3 Condition 18* of DA 0079.2002 and in accordance with the reporting requirements of *Condition 6 R1* of EPL 3637 CHPP submits an annual report to the EPA (currently the annual anniversary date is 01 April).

The summary report includes:

- A statement of compliance against the conditions of EPL 3637, and
- Monitoring and complaints summary for the EPL 3637 reporting period.

#### 7.3.2 Complaints Register

As required under *Schedule 3 Condition 18* of DA 0079.2002, WHC maintains a summary of community complaints (refer to Section 5) received in relation to CHPP activities. The community complaints register is updated monthly and is published on the WHC website.

#### 7.3.3 Monthly EPL Monitoring Summary

CHPP prepares a monthly environmental monitoring summary in align with the requirements of the EPL 3637. The summary report is published on the WHC website.

*Condition 5* of the EPL 3637 outlines the requirements for monitoring and recording as follows:

##### M1 Monitoring Records

*M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.*

*M1.2 All records required to be kept by this licence must be:*

- (c) in a legible form, or in a form that can readily be reduced to a legible form;
- (d) kept for at least 4 years after the monitoring or event to which they relate took place; and
- (e) produced in a legible form to any authorised office of the EPA who asks to see them.

*M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:*



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- a) *the date(s) on which the sample was taken;*
- b) *the time(s) at which the sample was collected;*
- c) *the point at which the sample was taken; and*
- d) *the name of the person who collected the sample.*

## 8 REVIEW AND IMPROVEMENT

### 8.1 Review of Plans, Procedures and Strategies

In accordance with the requirements of *Schedule 3, Condition 19* of DA 0079.2002:

*Within 3 months of:*

- (c) *The submission of an annual report under condition 16;*
- (d) *any modification to the conditions of this consent; or*
- (e) *the submission of an incident report under condition 20 of Schedule 3.*

*the Applicant shall review, and if necessary revise, the plans required under this consent to the satisfaction of the Secretary. Where this review leads to revisions of any plan then within four weeks of the review the revised document must be submitted to the Secretary for approval.*

*Note: This is to ensure the plans are updated on a regular basis and incorporate any recommended measures to improve the environmental performance of the project.*

This document will be reviewed, and if necessary revised within 3 months of items (a) to (c) listed in the condition above. Any changes required to the EMP following the management review will be submitted to DPE for approval and recorded in the change summary table listed in Section 8.4.

#### 8.1.1 Document Control

A company-wide Document Control Procedure is currently being developed by WHC. This procedure aims to establish standardised practices for managing documents across the entire company. It includes guidelines for file structure and file naming conventions to ensure consistency and reliability in document management.

### 8.2 Management Review

In general accordance with ISO:14001 2016, top management will review the CHPP environmental management system, to guarantee continued practicality, adequacy, and effectiveness.

The management review shall look at:





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- Status of previous management review recommendations.
- Alterations in:
  - external and internal issues.
  - stakeholders needs and expectations.
  - significant environmental aspects.
  - environmental risks and opportunities.
- Achievement of environmental objectives.
- CHPP environmental performance regarding compliance, nonconformities, corrective actions, monitoring and measurement results, audit results.
- Resource efficiency.
- Communication and complaints.
- Opportunities for continual improvement.

### 8.3 Continuous Improvement

In general accordance with ISO:14001 2016, WHC will investigate ways to improve environmental performance over time. This will be achieved through:

- Stakeholder consultation, feedback, and recommendations.
- Management review.
- Development and implementation of an internal audit program.
- Reporting on environmental performance in the Annual Review and associated measures proposed to be implemented to improve performance.
- Implementation maintenance and management of any EMP documentation and continuous improvement.



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#### 8.4 Change Register

The following change register (refer to Table 10) will document any changes required to the EMP as defined in Section 8.1.

**Table 7 Change register summary**

Version	Date	Change Summary
1	July 2016	Modification 3 review
1	May 2018	Updates to address Department comments
2	July 2023	Update in general accordance with ISO:14001 2016 requirements.
2	October 2023	Updated in response to DPE comments



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## 9 ACRONYMS

AS	Australian Standard
BBRA	Broad-Brush Risk Assessment
CHPP	Coal Handling and Preparation Plant
DA	Development Application
DPE	Department of Planning and Environment (formerly known as DPIE and DP&E)
DPI Water	Department of Primary Industries - Water
EMP	Environmental Management Plan
EP&A	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence
GSC	Gunnedah Shire Council
HSEC	Health Safety Environment and Community
ML	Mining Lease
MOD	Modification of Consent
PDCA	Plan Do Check Act
PIRMP	Pollution Incident Response Management Plan
RFS	Rural Fire Service
RMP	Rehabilitation Management Plan
ROM	Run-of-Mine
SDS	Safety Data Sheets
WHC	Whitehaven Coal Limited



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## APPENDIX A - AIR QUALITY CONTROL PROTOCOL

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# AIR QUALITY CONTROL PROTOCOL

Edition	Rev.	Comments	Author	Authorised By	Date
1	0	Initial document	J Johnson	D Young	Nov 2013
	1	Periodic review	T Dwyer	J Johnson	July 2016
	2	Periodic review	M. Whitten	I. Taylor	June 2018
	3	Periodic review	O.Hulbert	A.Raal	June2023

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**ACRONYMS USED THROUGHOUT THIS DOCUMENT**

- AQCP - Air Quality Control Protocol
- AS - Australian Standard
- CHPP - Coal Handling and Preparation Plant
- EPA - Environment Protection Authority
- EPL - Environment Protection Licence
- HVAS - High Volume Air Sampler
- NATA - National Association of Testing Authorities
- PM<sub>10</sub> - Particulate Matter with aerodynamic diameter less than 10µg





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### 1 INTRODUCTION

The Whitehaven Coal Handling and Preparation Plant (CHPP) and Rail Load-Out Facility is owned and operated by Whitehaven Coal Limited (Whitehaven) and was originally approved by Gunnedah Shire Council on 7<sup>th</sup> September 2002 under Project Approval 0079.2002. The location of the Whitehaven CHPP and Rail Load-Out Facility and its regional setting is shown on Figure 1.

- **Modification 1 (MOD1):** was approved 17 April 2008, for an upgrade to the CHPP and the construction of two additional reject ponds.
- **Modification 2 (MOD2):** was approved 23 December 2011, by the Department of Planning and Environment (DPE) (formerly DPIE and DP&E), which provided for the construction of three additional reject ponds and two settlement ponds to the immediate east of the existing pond footprint.
- **Modification 3 (MOD3):** was approved 24 August 2015, to rectify an administrative issue.
- **Modification 4 (MOD4):** was approved 12 September 2022, for the CHPP Life Extension Modification.

It is recognised that the operation of the CHPP has the potential to impact on the air quality within and beyond the boundaries of the site. In order to manage the potential impacts on local air quality and in compliance with former Condition U2 of Environment Protection Licence (EPL) 3637, this Air Quality Control Protocol (AQCP) has been developed.

The AQCP has been prepared with reference to relevant approvals and guidelines, including the best management practice measures documented in the Katestone (June 2011) report.

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**Figure 1 Locality Plan**



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## 2 MONITORING PARAMETERS

### 2.1 Air Quality

The Development Consent and EPL do not specify air quality criteria, however Whitehaven maintains target levels at the CHPP as consistent with the generic criteria applied at its mining operations, namely:

- An annual deposited dust maximum level of 4g/m<sup>2</sup>/month;
- A 24 hour Particulate Matter <10µg (PM<sub>10</sub>) level of 50µg/m<sup>3</sup>; and
- An annual average PM<sub>10</sub> level of 30µg/m<sup>3</sup>.

### 2.2 Meteorological

Meteorological information recorded at the CHPP meteorological station includes:

- Wind speed and direction;
- Solar radiation;
- Temperature;
- Rainfall; and
- Sigma Theta.

The CHPP meteorological station is linked to the Whitehaven Group's real time monitoring platform (Sentinex), and is accessible to CHPP personnel located in the administration buildings, CHPP control room or wherever there is internet access. This enables monitoring of weather conditions in real time, and appropriate management responses during adverse conditions.

### 2.3 Coal Handling

Monitoring parameters for coal handling comprise:

- Coal moisture levels;
- Visible dust levels;
- Stockpile shape; and
- Wind speed.



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### 3 MONITORING METHODS

#### 3.1 Air Quality

Deposited dust is monitored using deposited dust gauges sited on various properties surrounding the CHPP.

PM<sub>10</sub> levels are monitored using High Volume Air Samplers (HVAS).

Monitoring is undertaken according to the DEC (2006) document *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales 2006*. Specifically, monitoring is conducted in accordance with the following Australian Standards:

- AS/NZS 3580.1.1:2007 “*Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment*”.
- AS/NZS 3580.9.6:2003 “*Methods for sampling and analysis of ambient air – Determination of suspended particulate matter PM<sub>10</sub> high volume sampler with size-selective inlet – Gravimetric Method*”.
- AS 3580.10.1:2003 (R2014) “*Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method*” (NSW DEC Method AM-19).

For each deposited dust monitoring location, once each month the glass container used to capture the deposited dust is removed, replaced and sent to a NATA accredited laboratory for analysis. For the HVAS, the pre-weighed filter is removed, replaced and sent to a NATA accredited laboratory for analysis generally in monthly batches to coincide with the despatch of the deposited dust samples.

Condition M1.3 of EPL 12365 requires the following records to be kept:

- The date(s) on which the sample was taken;
- The time(s) at which the sample was collected;
- The point at which the sample was taken; and
- The name of the person who collected the sample.

In addition to these requirements, any notable activities or conditions at or around the monitoring location should be noted at the time of sample collection. Site activities that could impact on air quality results as well as any relevant regional conditions (eg. bushfires, dust storms) should be noted when they occur.

#### 3.2 Meteorological

A real time meteorological station is located at the CHPP which allows the Control Room Operator to assess real time weather conditions and to identify appropriate management responses should conditions be conducive to excessive dust generation. The meteorological station complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.



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**3.3 Coal Handling**

Methods for monitoring the parameters identified in Section 2.3 are as follows:

- Coal moisture levels:
  - Belt samples (taken during each train loading event)
- Visible dust levels:
  - Visual observations (at all times, and documented in the Zone Inspection twice per day)
- Stockpile shape:
  - Height indicators (observed during stockpile shaping)
  - Visual observations (at all times during stockpile shaping)
- Wind speed:
  - Meteorological station (continuous)



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### 4 MONITORING LOCATIONS AND FREQUENCY

#### 4.1 Monitoring Locations

##### 4.1.1 Air Quality

Figure 2 presents the locations of the dust deposition gauges and HVAS. The locations have been selected taking into account local meteorological conditions, the proximity of surrounding residences and the locations of likely dust emission sources from the site. Table 1 presents a summary of the air quality monitoring sites.

**Table 1 Air Quality Monitoring Locations**

Reference*	EPL ID #	Easting*	Northing*	Residence/Property	Deposited Dust	PM <sub>10</sub>
WS-3	3	232480	6572648	"Caroucel"	✓	
Kendo	11	231073	6573799	"Kendo"		✓
Olive View	12	233245	6573101	"Olive View"		✓

\* Estimated from Google Earth

##### 4.1.2 Meteorological

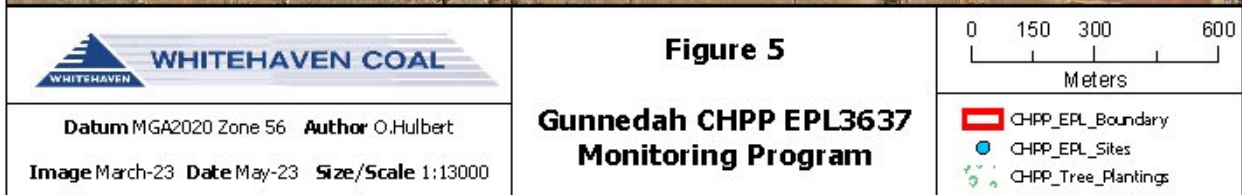
The meteorological station for the CHPP is located adjacent to the administration offices, as shown in Figure 2.

##### 4.1.3 Coal Handling

Belt samples for coal moisture levels are collected at the train loadout.

Visual observations for dust and stockpile shape are undertaken by all personal from any area of the CHPP. Stockpile height indicators are located at the pad 4 bypass.

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**Figure 2 Monitoring Locations**



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**4.2 Monitoring Frequency**

4.2.1 Air Quality

The monitoring frequency, as specified in Condition M2.1 of EPL 3637, for deposited dust and PM<sub>10</sub> is as follows:

- Deposited dust – continuous
- PM<sub>10</sub> – every 6 days (in accordance with the EPA schedule for PM<sub>10</sub> monitoring)

4.2.2 Meteorological

Meteorological data is recorded on a continuous basis with results provided in 15 minute intervals.

4.2.3 Coal Handling

Belt samples for coal moisture levels are collected during the loading of every train.

General visual observations occur on a continuous basis. Zone inspections of the stockpiles and adjacent areas are undertaken once per shift (ie. twice per day).





## **5 JUSTIFICATION AND KEY PERFORMANCE INDICATORS**

Whitehaven has reviewed the Katestone (2011) report for best practice management measures for dust control. A number of the measures identified are already implemented at the CHPP, as detailed below. The remaining measures have not/will not be implemented on the basis of operational or economical restrictions.

### **5.1 Coal Stockpiles**

The CHPP currently accepts ROM coal from Whitehaven's Tarrawonga and Rocglen operations. ROM coal is delivered by truck and unloaded to either bypass stockpiles or to stockpiles that provide feed to the washery. A plan of stockpile locations and the washery and rail load out bin is shown on Figure 3.

The coal processing undertaken at the CHPP is dependent on the quality of the coal delivered to site and the contract specification that each shipment is required to meet. On this basis, coal product types can be broadly split into two classifications, being bypass product (not washed) and washed product (processed through the washery).

Washed product comprises the lower ash specification coal, which also retains a higher inherent moisture level as a consequence of being processed through the washery. The total moisture of product coal held in washed product stockpiles is generally in the order of 10.3%. It also has the 100 micron component of the product removed via the tailings stream. The total moisture of the bypass product stockpile is generally in the order of 8.9%.

Belt sprays are located on the bypass conveyor, feeder and transfer point delivering coal to the coal loadout bin. They are fixed and automatic with operation triggered by weight sensors. This reduces wastage of water when the belts are empty.

Dust generation from product stockpiles is generally low, with the bypass stockpile more prone to dust lift off as compared to the washed product stockpile. For this reason, water sprays are located on the bypass product stockpile wall and can be activated if required to minimise potential for dust lift off. Control of dust by this method can however create operational and safety issues in relation to compromised energy of the coal and hang-up in rail wagons.

Orientation of the coal stockpiles assists in minimising exposure to the predominant winds in the area. Winds are predominantly from the north-west or south-east. The bypass stockpile comprises a concrete wall on its south-eastern edge which can act as a barrier to dust generation during north-westerly winds. Similarly, it acts as a buffer to winds from the south east. The washed product stockpiles, whilst more exposed to wind impacts, have greater moisture content and are less prone to dust lift off.

Stockpile height for the bypass stockpile is limited to 12m (assessed using height indicators) and all stockpiles are generally maintained as a dome-like shape. Immediately prior to train loading the stockpile can be pushed up into a more conical-type shape but this is only for a short period of time (ie. two hours).

One water cart generally commences operation at the CHPP at approximately 4am and continues to operate as long as dust suppression is required. An additional water cart



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generally operates between 7am and 6pm. Water carts generally only cease operation when it has rained and the area becomes too wet to operate.

### **5.2 Dozers**

All dozers at the CHPP are restricted to first gear reverse and only travel the distances required to perform their task. Travel routes between stockpiles are kept moist by water carts.

### **5.3 Key Performance Indicators**

Key Performance Indicators (KPIs) for the CHPP are:

1. Compliance with dust and PM<sub>10</sub> target levels as outlined below:
  - a. An annual deposited dust maximum level of 4g/m<sup>2</sup>/month;
  - b. A 24 hour Particulate Matter <10µg (PM<sub>10</sub>) level of 50µg/m<sup>3</sup>; and
  - c. An annual average PM<sub>10</sub> level of 30µg/m<sup>3</sup>.
2. Compliance with monitoring schedule.
3. No community complaints related to dust generation from coal handling activities.
4. Completion of dust assessment in Zone Inspections for each shift.



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Figure 3 CHPP Layout



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### 6 **RESPONSE MECHANISMS**

Response mechanisms to be implemented when existing management measures are not sufficient to control dust include:

- Automatic alerts to the CHPP control room when wind speeds reach 10m/s (36km/hr), which triggers an inspection of the area to determine if dust levels are acceptable. Triggering an inspection, rather than immediate modification of operations, is proposed as high wind speeds may not necessarily relate to unacceptable dust levels (ie. immediately following wet weather).
- If visual observations confirm dust lift-off from the bypass stockpile, the control room will activate the water sprays positioned at the bypass stockpile and assess their effectiveness. Water sprays will be maintained if conditions allows.
- Initiate investigation following receipt of non-compliant dust results to determine whether dust from coal stockpiles is a significant contributing source. If it is identified as a significant contributing source, stockpile management procedures to be reviewed.

### 7 **RECORD KEEPING AND REPORTING**

#### 7.1 **Air Quality**

Deposited dust and PM<sub>10</sub> monitoring reports are provided by a NATA accredited laboratory on a monthly basis. Results are collated for analysis and reporting.

Reporting in relation to the EPL comprises:

- Provision of a monthly monitoring summary on the Whitehaven website ([www.whitehavencoal.com.au](http://www.whitehavencoal.com.au)); and
- Completion of the Annual Return.

#### 7.2 **Meteorological**

Meteorological data can be assessed in real time whilst a 24 hour summary of meteorological data is emailed to key Whitehaven personnel (Environmental and CHPP personnel) each morning.

A monthly summary of daily averages is also provided via email and detailed 15 minute readings can be accessed on request.

#### 7.3 **Coal Handling**

Zone Inspection books are kept at the CHPP whilst in use and then archived for long term records.

### 8 **DOCUMENT REVIEW**

This document will be reviewed in conjunction with the review requirements of the Environmental Management Plan.