HUNTER VALLEY OPERATIONS



Environmental Management Strategy

Hunter Valley Operations

DOCUMENT CONTROL

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4.0	08/01/2019	REVISION FOLLOWING COMMENCEMENT OF THE HUNTER VALLEY OPERATIONS JV	SLR / D BROWN	A SPEECHLY

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Strategic Framework for Environmental Management

1.1 Background

Hunter Valley Operations (HVO) is an established large-scale open cut operation, using dragline and truck & shovel mining methods. HVO is located in the Upper Hunter Valley region of New South Wales (NSW) (Figure 1).

HVO is an integrated open cut coal mining operation geographically divided by the Hunter River into HVO North and HVO South, situated 24 kilometres (km) north-west of Singleton.

This Environmental Management Strategy (EMS) provides an overview of environmental management at HVO (both North and South).

On 1 September 2017, YAL completed its purchase of the Coal and Allied assets from Rio Tinto. On 4 May 2018, the Hunter Valley Operations Joint Venture (HVOJV) was formed which is a jointly controlled operation through a Joint Venture between Glencore (49%) and Yancoal (51%). This EMS replaces the previous EMS's developed prior to this Joint Venture arrangement.

1.2 Purpose

This EMS outlines how HVO manages environment and community aspects, impacts and performance. It provides a framework for the standards, plans and procedures implemented so operations are managed in accordance with Glencore Coal Assets Australia (GCAA) business principles and all relevant approvals and licences held by HVO. This EMS is an integral part of the overall HVO Environmental Management System and outlines HVO's commitment to proactive community and environmental management and demonstrates HVO's commitment to reducing environmental and community impacts. Table 1 lists the relevant Planning Approval conditions which describe the regulatory requirements of the EMS.

Table 1 - Relevant Approval Conditions

Condition Reference	Condition			
PA 06-0261 Hunter Valley Operations South Coal	The proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:			
Project Approval Sch. 5 Cond. 1	 a) be submitted to the Secretary for approval within 6 months of this project approval or otherwise agreed by the Secretary; 			
	 b) provide the strategic context for environmental management of the project; 			
	c) identify the statutory requirements that apply to the project;			
	d) describe the procedures that would be implemented to:			
	 keep the local community and relevant agencies informed about the operation and environmental performance of the project; 			
	 receive, handle, respond to, and record complaints 			
	 resolve any disputes that may arise during the course of the project; 			
	 respond to any non-compliance; 			
	 manage cumulative impacts; and 			
	 respond to emergencies; 			
	e) include:			
	 references to any strategy, plans and programs approved under this approval; and 			
	 a description of and clear plan depicting all environmental monitoring to be carried out under this approval; 			
	 f) describe how the various incident and approval reporting requirements of the project would be integrated into a single reporting system; and 			
	g) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project.			
	Note: The requirements for the Environmental Management Strategy may, with the Secretary's approval, be satisfied as a component of CNA's Hunter regional environmental management strategy.			

Condition Reference	Condition		
DA 450-10-2003 Hunter Valley Operations North Development Consent	If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary, this strategy must;		
Sch. 5 Cond. 1	 be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant 		
	b) provide the strategic framework for environmental management of the development;		
	 c) identify the statutory approvals that apply to the development; 		
	 d) describe the role, responsibility, authority, and accountability of all key personnel involved in environmental management of the development; 		
	e) describe the procedures that would be implemented to:		
	 keep the local community and relevant agencies informed about the operation and environmental performance of the mine development; 		
	 receive, handle, respond to, and record complaints 		
	 resolve any disputes that may arise during the course of the development; 		
	 respond to any non-compliance; and 		
	 respond to emergencies; and 		
	f) Include:		
	 copies of any strategies, plans and programs that are approved under the conditions of this consent; and 		
	 a clear plan depicting all the monitoring to be carried out under the conditions of this consent. 		
	The Applicant must implement any Environmental Management Strategy as approved from time to time by the Secretary.		

1.3 Scope

The scope of the EMS applies to the entire HVO operation including all mining areas, coal processing operations, rehabilitation areas, biodiversity areas and all other activities on land within HVO.

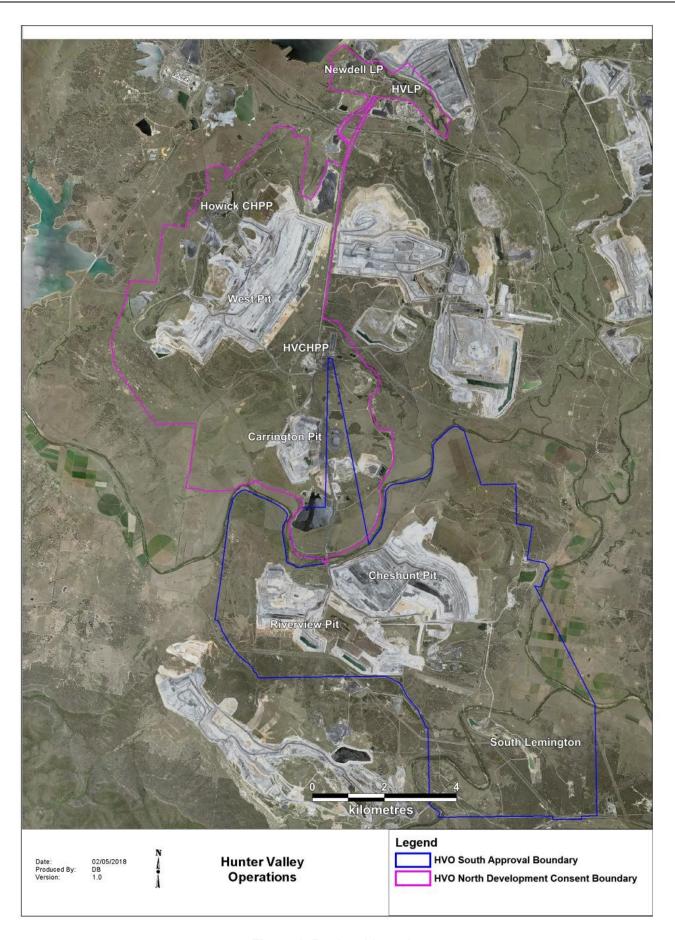


Figure 1: Regional Location

1.4 Objectives

The objectives of this EMS are to:

- Provide an overarching framework for the environmental management and monitoring of activities undertaken at each operation, which incorporates the principles of continuous improvement and is consistent with the five pillars of ISO 14001: Environmental Management Systems (as detailed in Figure 2);
- Maintain compliance with the following Project Approvals, Development Consents and Environment Protection Licences (EPLs);
 - HVO South: Project Approval 06-0261;
 - HVO North: Development Consent 450-10-2003; and
 - EPL 640.

This EMS sets out the procedures for periodic review, and, where necessary, revision of the document so that it is maintained to reflect current mining operations to the satisfaction of the Secretary of Department of Planning and Environment (DPE).

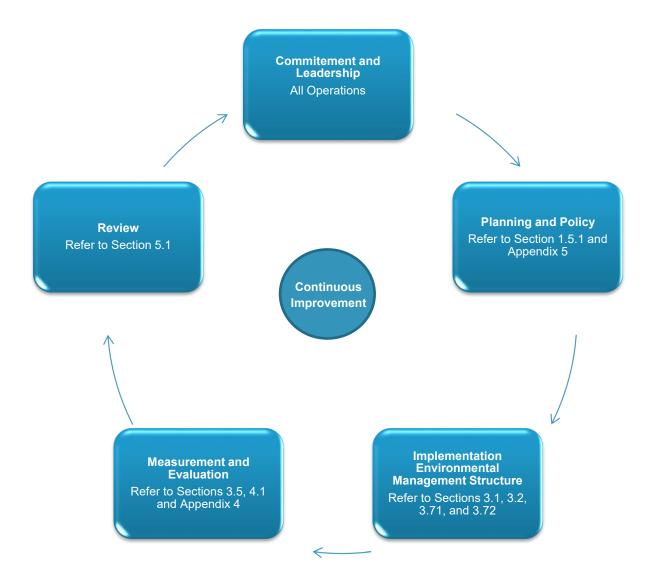


Figure 2: Environmental Management Principles

2 STATUTORY APPROVALS

Statutory licences and approvals for HVO are listed in Table 2.

Table 2 - Statutory Licences and Approvals

Approval	Authority	Issue Date	Expiry Date
HVO North Development Consent (DA450-10-2003)	DP&E	12/06/2004	12/06/2025
HVO South Project Approval (0 0261)	06- DP&E	24/03/2009	24/03/2030
EPL 640	EPA	29/09/2000 Anniversary date is 1st April	11/11/2019 (Review date)
AUTH 72	DRG	08/03/1977	24/03/2018 (renewal pending)
CCL 708	DRG	17/05/1990	29/12/2023
CCL 714	DRG	23/05/1990	30/08/2030
CCL 755 (HV1 Consolidation)	DRG	24/01/1990	05/03/2030
CL 327 (Hunter Valley No. 2)	DRG	06/03/1989	06/03/2031
CL 359 (Former Lemington Road)	DRG	21/05/1990	21/05/2032
CL 360 (Additional area – HV1)	DRG	29/05/1990	29/05/2032
CL398 (West Corners of Riverview)	DRG	04/06/1992	04/06/2034
CML 4 (Howick Consolidation)	DRG	02/03/1993	03/06/2033
EL 5291	DRG	28/04/1997	23/09/2015 (renewal pending)
EL 5292	DRG	28/04/1997	28/04/2020
EL 5417	DRG	23/12/1997	08/05/2015 (renewal pending)
EL 5418	DRG	23/12/1997	08/05/2017 (renewal pending)
EL 5606	DRG	11/08/1999	10/08/2019
EL 8175	DRG	23/09/2013	22/09/2018 (renewal pending)
ML 1324 (Alluvial Lands)	DRG	19/08/1993	18/08/2014 (renewal pending)
ML 1337 (Belt Line Road)	DRG	01/02/1994	09/09/2014 (renewal pending)
ML 1359 (Access Roads HVCPP Coal Loader)	DRG	01/11/1994	31/10/2015 (renewal pending)

Approval	Authority	Issue Date	Expiry Date
ML 1406 (East of D/L Erection Pad)	DRG	27/02/1997	10/02/2027
ML 1428 (Mitchell & Carrington Pits)	DRG	15/04/1998	14/04/2019
ML 1465 (Lemington)	DRG	21/02/2000	21/02/2021
ML 1474 (Carrington Pit)	DRG	24/11/2000	23/11/2021
ML 1482 (Carrington Dams)	DRG	19/03/2001	14/04/2019
ML 1500 (Mitchell 1 Road)	DRG	21/12/2001	20/12/2022
ML 1560 (West Pit Extension Area)	DRG	28/01/2005	27/01/2026
ML 1589 (Carrington Extended)	DRG	02/11/2006	01/11/2027
ML 1622	DRG	22/10/2010	10/03/2027
ML 1634	DRG	31/07/2009	30/07/2030
ML 1682	DRG	16/12/2012	15/12/2033
CL 584 (Newdell CPP)	DRG	01/01/1982	31/12/2023
EPBC 2016/7640	DoEE	10/10/2016	31/12/2030

3 ROLES AND RESPONSIBILITIES

Environmental management at HVO is the responsibility of all employees and contractors, with the General Manager having overall responsibility for environmental management of the site. Key personnel and their relevant E&C management roles and responsibilities are listed in **Table 3**. More specific roles and responsibilities are contained in environmental management plans, procedures and individual position descriptions.

Table 3 - Responsibility

Role	Responsibility		
General Manager	Is accountable for:		
	Ensuring adequate resourcing is available to implement the EMS; and		
	Ensuring adequate training resources are available to implement the EMS.		
Environment and	Is accountable for:		
Community	Providing leadership to sites in the implementation and maintenance of the EMS;		
Manager	Making recommendations regarding the effectiveness of the EMS; and		
	Ensuring that the EMS is reflective of contemporary operations and risks.		
Superintendent/ Specialist	Each Superintendent / Specialist role is accountable for the implementation of the EMS standards within the area of control and with demonstrated behaviour, will ensure that:		
	 All regular checks, inspections and audits are done; and that the EMS is consistently applied across his/her area of control; and 		
	Reporting and recommending improvements of this EMS to the E&C Manager as appropriate.		

Role	Responsibility			
Team Leader	Each Team Leader is accountable for:			
	 Ensuring that all team members understand the EMS requirements and perform them accordingly; 			
	Behaving in a manner than demonstrates his/her commitment and understanding of EMS;			
	Applying the EMS to area of accountability; and			
	Reporting and recommending improvements of this EMS to the E&C Manager as appropriate.			
Employee	Each employee is accountable for:			
	Following EMS requirements including any associated standards, procedures and systems; and			
	Reporting and recommending improvements of this EMS to the E&C Manager as appropriate.			

4 EMERGENCY RESPONSE

Environmental emergency response procedures are integrated with onsite emergency response plans.

An Emergency Response Team is in operation at the site and trained to coordinate and respond to emergency situations, accidents and pollution events and undertake rescues as required. Preparedness for emergencies by staff, personnel, contractors and service providers is undertaken in accordance with onsite training requirements whereby personnel are appropriately trained in the use of emergency response equipment and procedures, and will be made aware of their responsibilities should such an event occur.

Arrangements, including description and location of safety equipment, for minimising risk of harm to people and the environment as result of a pollution incident, and for containing or controlling a pollution incident, are included in the Hunter Valley Operations Pollution Incident Response Management Plan.

5 MANAGING CUMULATIVE IMPACTS

Strategies for the management of cumulative impacts at HVO include:

- Monitoring data from the Upper Hunter Air Quality Monitoring Network;
- Working with neighbouring mining operations with regards to the management of blast fume, dust, noise, lighting and social issues;
- Sharing monitoring data with neighbouring mines as required; and,
- Participating in the Upper Hunter Mining Dialogue.

Cumulative environmental impacts from mining operations, along with the mitigation and management measures implemented (including an assessment of their effectiveness), are addressed in the relevant management plans.

6 EXTERNAL COMMUNICATION

6.1 External Stakeholders

An electronic database of all identified external stakeholders is maintained on site. This includes, but is not limited to, the following:

Neighbouring residents;

- Community groups;
- Regulatory agencies;
- · Aboriginal groups; and
- Environmental groups.

Stakeholders are provided with regular updates on the operational, environmental and social performance of the HVO, as well as any new projects or modifications, through various communication channels.

The objectives of the external relations strategy at HVO are to:

- · Have a robust relationship with our communities of interest;
- Effectively contribute to the community's long term sustainability; and
- Ensure "reputation capital" is valued and integrated into business processes and decision making.

6.2 Website Reporting

HVOs website (https://insite.hvo.com.au/) is maintained to provide the wider community with access to the HVO development consents, EPL, monitoring results, details of current activities, scheduled blast times, environmental management plans and monitoring programs and any other information in relation to the operation that may be of interest to the community. It is the responsibility of the HVO E&C Manager to maintain the website.

The following documents are required to be published on the public website and need to be kept up-to-date in accordance with Schedule 5, Condition 9 of PA 06-0261 and Schedule 5 Condition 12 of DA 450-10-200:

- All management plans and strategies required by Development Consents DA 450-10-2003 and PA 06-0261.;
- Current statutory consents and approvals;
- A comprehensive summary of monitoring results reported in accordance with the specifications of any consent conditions or any approved plans or programs;
- Contact details to enquire or make a complaint;;
- A complaints register, which is updated monthly;
- Blasting schedule;
- Minutes of CCC meetings;
- The ARs (for the last 5 years);
- Any independent environmental audit undertaken and the company's response to any recommendations made in the audit; and
- Any other matter required by the Secretary.

6.3 Community Consultative Committee

Consultation with the local community occurs through the HVO's Community Consultative Committee (CCC) in accordance with Schedule 5 Condition 8 of PA 06-0261 and Schedule 5 Condition 6 of DA 405-10-200. The CCC monitors compliance with conditions of consent and provides a forum for important community discussion. Community representatives act as the point of contact to provide feedback between the mines and the community. Community representatives are asked to relay information from these meetings to their community

and in turn, through their representative, the community can raise issues they would like addressed. This CCC is comprised of members from the community This CCC is operated in general accordance with the Community Consultative Committee Guidelines (Department of Planning and Environment - November 2016).

The CCC meets three times a year, or as agreed by the Secretary, throughout the life of the combined operations. It is the responsibility of the HVO E&C Manager to ensure minutes of the CCC meetings are taken and that these minutes are made available on the HVO website.

7 COMPLAINTS MANAGEMENT

HVO manages a community complaints hotline which is dedicated to the receipt of community complaints operating 24 hours per day, seven days a week, to receive any complaints from neighbouring residents or other stakeholders. The complaints hotline is advertised in the local media, community newsletters and the HVO website. The community complaints hotline is 1800 888 733.

HVO maintain an operational Community Complaints Procedure (CCP) which details the process to be followed when receiving, responding to and recording community complaints. The CCP is supported by a complaints management database to allow for the capture and management of complaints raised at each operation.

HVO ensures investigations commence within 24 hours of the receipt of a complaint to determine the likely cause of the complaint. The investigation will be used to develop appropriate mitigation measures which will be presented to the complainant. The CCP requires the recording of relevant information including:

- The nature of the complaint;
- Method of the complaint;
- Relevant monitoring results and meteorological data at the time of the complaint;
- Site investigation outcomes;
- Any necessary site activity and activity changes;
- Any necessary actions assigned; and
- Communication of the investigation outcome(s) to the complainant.

A complaints register is updated monthly and made available on the HVO website.

8 DISPUTE RESOLUTION

In the event of a disagreement between HVO and a member of the community, the Environment and Community Manager (or delegate) will undertake the necessary liaison and communication to reach a resolution..

In the event of dispute arising from findings of consented conditions relating to property inspections, investigations and/or land acquisition matters, these will be referred to the Secretary of DPE in accordance with the relevant consent conditions.

9 ENVIRONMENTAL MONITORING

Environmental monitoring provides a measure of the performance of HVO, with monitoring results being compared against performance criteria specified in the HVO licences and development consents. Monitoring is undertaken in accordance with the individual management plans prepared in accordance with the applicable development consent conditions covering noise, blasting, air quality, surface water, groundwater and biodiversity monitoring requirements. Monitoring locations are shown in **Appendix 1**.

All monitoring is undertaken in accordance with the relevant Australian Standards using standard monitoring techniques and calibrated equipment operated by trained personnel. Sampling and analysis is undertaken in accordance with applicable development consent and EPL conditions.

All monitoring results are filed by the HVO E&C Manager (or their delegate) and maintained in the EMD system. The EMD is a web-based data storage and display system for all environmental data required by approvals, licences and other external requirements.

10 APPROVED PLANS, PROGRAMS AND STRATEGIES

All approved plans, programs and strategies are made publically available via HVOs website (https://insite.hvo.com.au/).

11 INCIDENTS AND CORRECTIVE ACTION

An Incident is defined as a set of circumstances that causes or threatens to cause material harm to the environment which is not trivial, and/or breaches or exceeds the limits or performance measures/criteria.

In the event, that an alleged Incident associated with operations occurs, then the alleged Incident will be managed in accordance with approved site policies and procedures.

The reporting of an alleged Incident is to be conducted in accordance with operational protocols, relevant statutory approvals, obligations and procedures as approved within operational EMPs.

Corrective and preventative actions relating to environmental aspects specifically identified within the development consents are addressed within the dedicated environmental management plans as required by the consents.

11.1 Incident Notification

As soon as practicable after the site is made aware of an exceedance of the limits/performance criteria relating to the environmental performance, the HVO E&C Manager will confirm the exceedance and notify DP&E and other relevant regulatory agencies of the exceedance/incident. If the incident is or has the potential to cause material harm the incident will be managed and reported as per the requirements of the Pollution Incident Response Management Plan (PIRMP), which includes contact details of the relevant agencies.

Within seven days of the date of an alleged **Incident**, operations will provide to The Secretary of the DP&E and any other relevant agency as requested, a report of the alleged Incident in question. The report will:

- Describe the date, time and nature of the alleged exceedance/incident;
- Identify the cause (or likely cause) of the alleged exceedance/incident;
- Describe what action has been taken to date; and
- Describe the proposed measures to address the alleged exceedance/incident.

In addition to the above. In accordance with Part 5.7 of the *Protection of the Environment Operations Act 1997* (POEO Act) operations will notify and report to relevant government bodies as required, alleged pollution

incidents immediately upon knowledge of such an event which causes or threatens to cause material harm to the environment and which is not trivial in accordance with the Pollution Incident Response Management Plan.

12 REPORTING

Reporting protocols have been developed for managing and reporting the following:

- Incidents;
- Complaints;
- Non-compliances with statutory conditions; and
- Exceedances of the impact assessment criteria and/or performance criteria.

Environmental reporting requirements including timing, submission and distribution method are summarised in **Table 4**.

Table 4 - Reporting Requirements

Report	Frequency	Distribution	Method	Owner
Incident Report	As required	DPE or EPA (other agencies as required)	Email	Environment & Community Manager
Annual Review	Annually	DPE DRG DPI Water CCC	Email & Hardcopy	Environment & Community Manager
Annual Return	Annually	EPA	Online	Environment & Community Manager
EPBC Act Compliance Report	Annually (for the period 1 January to 31 December or as specified in approval)	DoEE	Email & Website	Environment & Community Manager
Independent Environmental Audit	Every 3 years	DPE	Email	Environment & Community Manager
Monthly EPL Pollution Monitoring Data Summary	Monthly	EPA	Website	Environment & Community Manager

Monthly Environmental Monitoring Report	Monthly	DPE	Website	Environment & Community Manager
National Pollutant Inventory Report	Annually (for the period 1 January to 31 December)	DoEE	On-Line	Environment & Community Manager
National Greenhouse and Energy Report	Annually (for the period 1 July to 30 June)	DoEE	On-Line	Environment & Community Manager

13 STRATEGY REVIEW

As required by the relevant conditions of Approvals', the Strategy shall be reviewed within three months of the submission of an:

- Annual review (formerly the AEMR);
- Incident report under the relevant conditions of approval;
- · Independent audit under the relevant conditions of approval; or
- Modification to the conditions of consent.

If any significant modifications to the EMS are required as an outcome of the review, a revised EMS will be submitted to DPE for approval.

14 APPENDICES

Appendix A - HVO Monitoring Sites

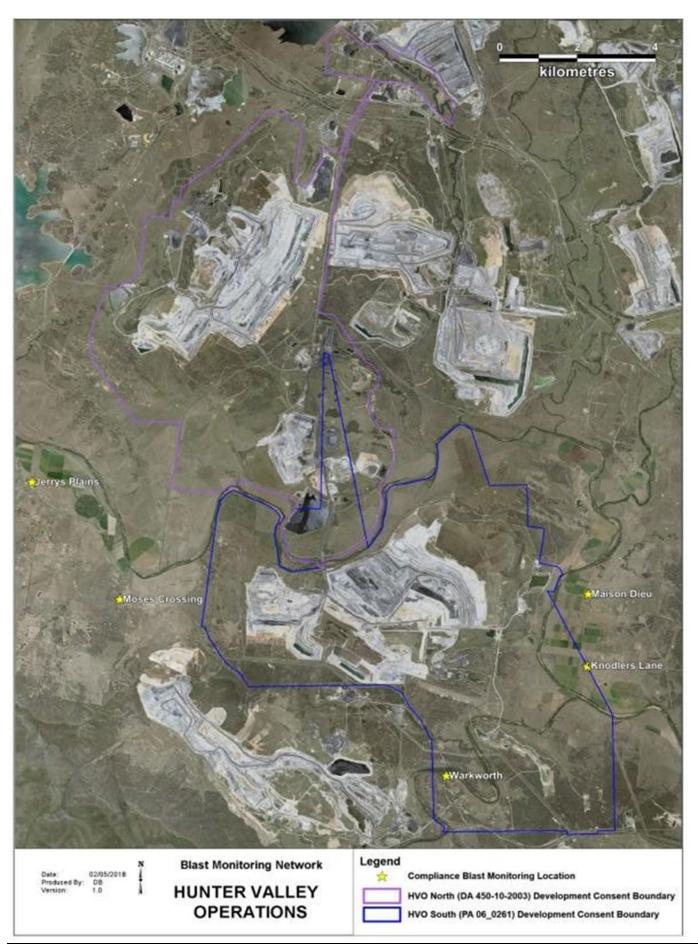


Figure 3 - Blast Monitoring Network

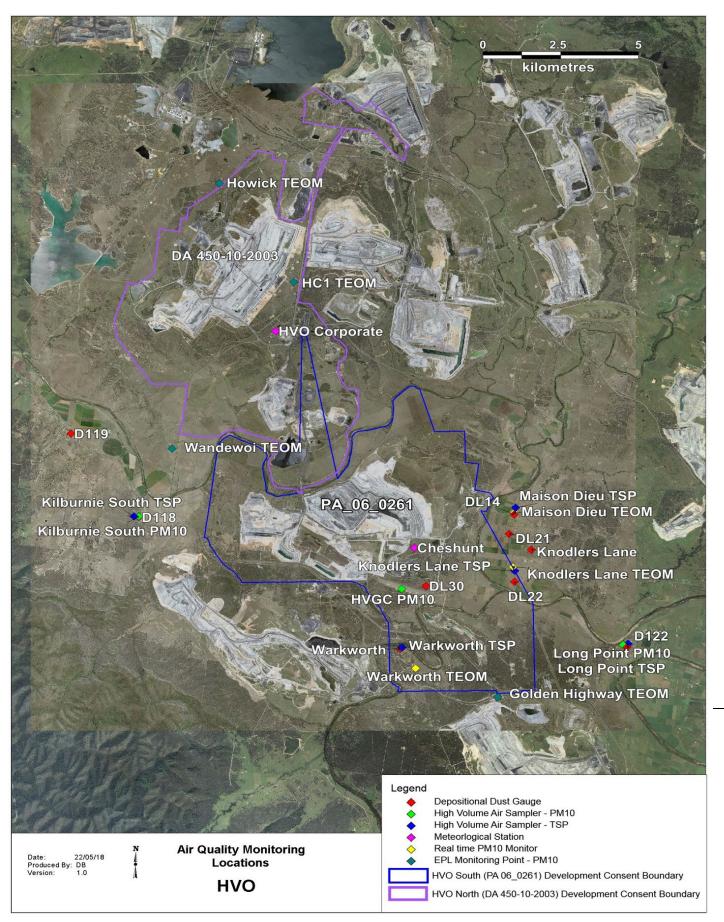


Figure 4 - Air Quality Monitoring Network

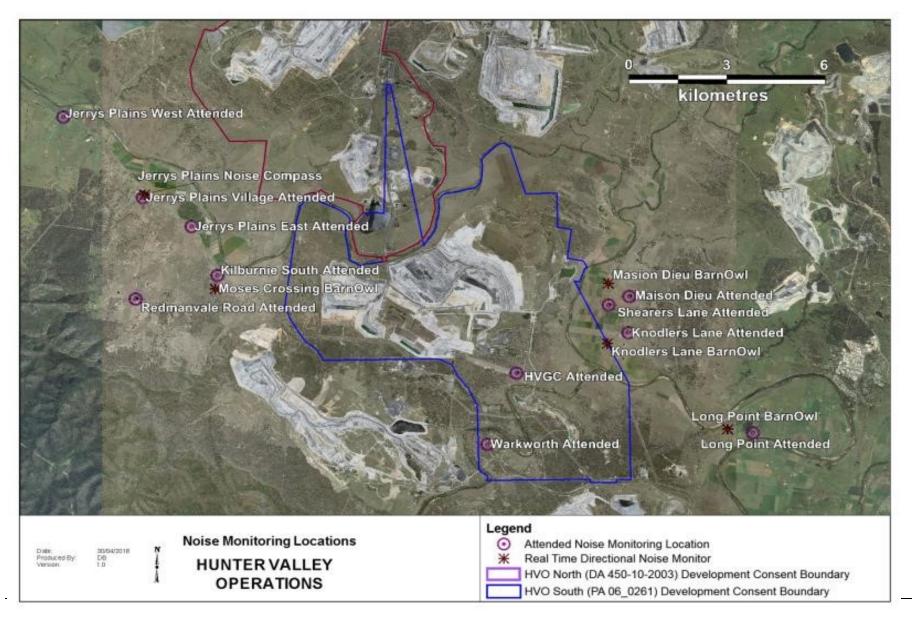


Figure 5 - Noise Monitoring Locations

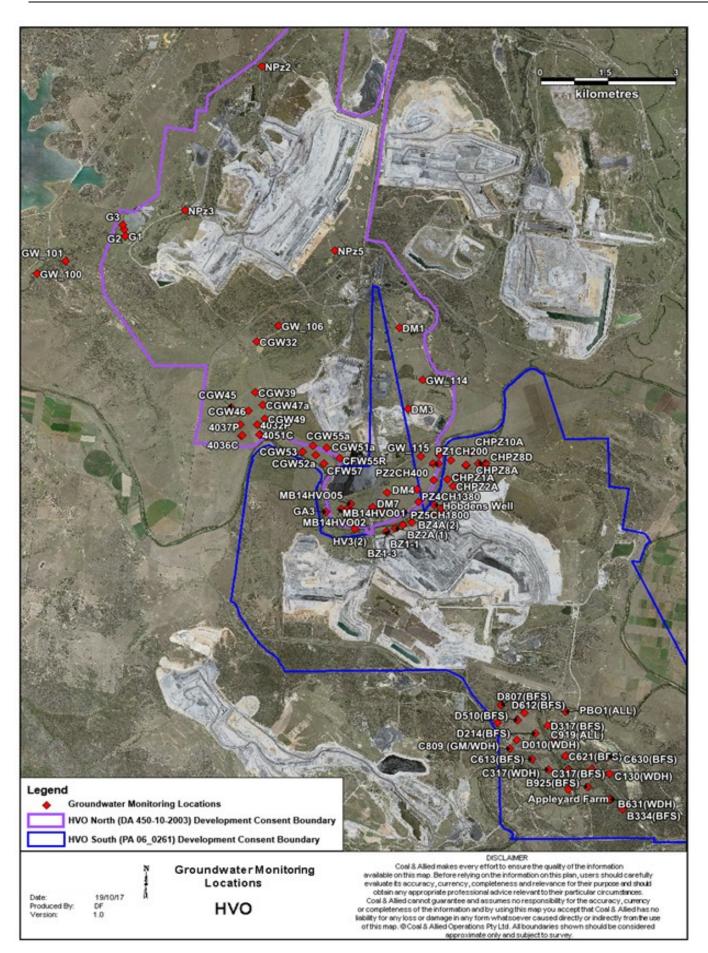


Figure 6 - Groundwater Monitoring Locations

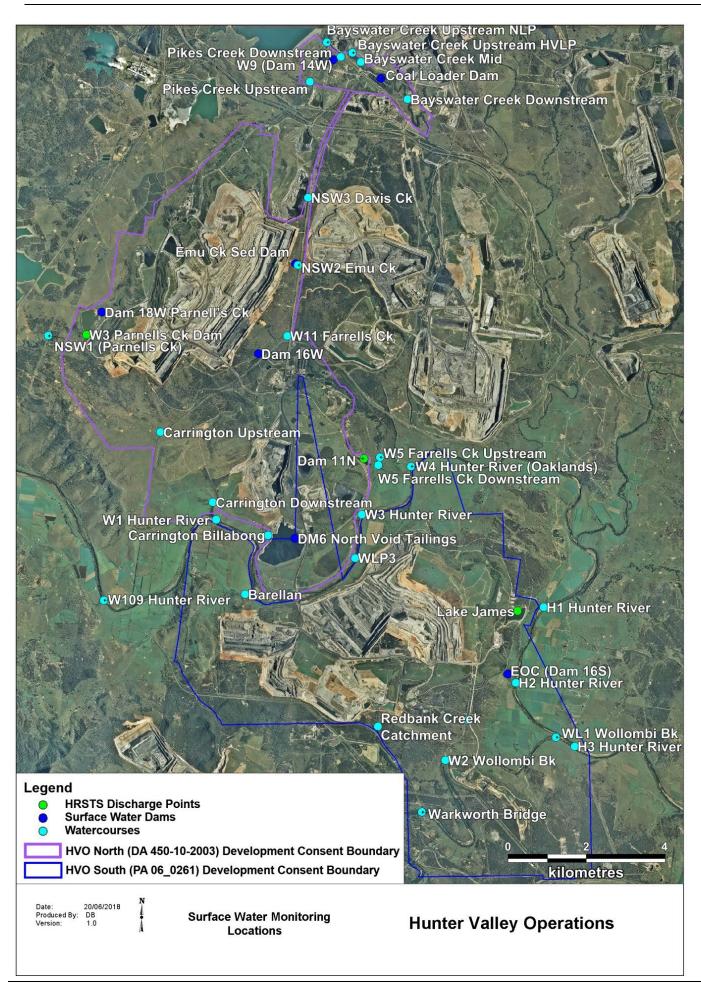


Figure 7 - Surface Water Monitoring Locations

Appendix B - Environmental Management Strategy Approval



Planning Services Resources Assessments

Name: Anthony Barnes Phone: 8289 6709

Email: anthony.barnes@planning.nsw.gov.au

Andrew Speechly
Manager Environment and Community
Hunter Valley Operations
PO Box 315
SINGLETON NSW 2330

Dear Mr Speechly

Hunter Valley Operations (DA 450-10-2003 and MP 06_0261) Approval of Environmental Management Strategy

I refer to your email of 7 January 2019 submitting the amended Environmental Management Strategy, prepared in accordance with condition 1 of Schedule 5 for both Hunter Valley Operations' development consent (DA 450-10-2003) and project approval (MP 06_0261).

The Department has carefully reviewed the strategy and is satisfied that it meets the requirements of the conditions. Therefore, the Secretary has approved the strategy. Please ensure that the strategy is uploaded to Hunter Valley Operations' website at your earliest convenience.

Should you have any enquiries in relation to this matter, please contact Anthony Barnes on the details above.

Yours sincerely

Howard Reed

Director

• • •

Resource Assessments
As nominee of the Secretary

Hanriel Red