

HUNTER VALLEY OPERATIONS

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HUNTER VALLEY GLIDING CLUB AMENITY MANAGEMENT

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1 | PURPOSE

As an annexure to the Concessions and Mitigation Agreement (CMA), the purpose of this Amenity Management Plan (AMP) is to set out the detailed measures that will be put in place to properly manage noise, air quality and obstacle limitation surface (OLS) impacts on the Hunter Valley Gliding Club (HVGC) resulting from operations in Permitted Mining areas within Hunter Valley Operations (HVO) South.

This AMP was prepared to satisfy Condition 49 of Schedule 3 of the Project Approval, PA 06_0261 and generally in accordance with EIS and EAs for the Project Approval and subsequent modifications.

2 | BACKGROUND

HVGC owns land, and operates within, the HVO South project approval boundary. Refer to Figure 1.

The initial HVO South Project Approval (06_0261) was granted on 24 March 2009, with the latest modification ('Mod 8') approved 6 February 2023.

Condition 49, Schedule 3 of the approval requires the proponent to prepare an AMP for the HVGC. The AMP was approved by the Department of Planning and Environment on 22 January 2013.

The HVGC operates from a single grass airstrip approximately 1.6 kilometre (km) long and oriented along the vector 290° to 110° (west-north-west to east-south-east). In addition to the airstrip, HVGC facilities comprise a clubhouse, hangar/workshop buildings, glider trailer storage area, and caravan site. Although the HVGC site has no approval for permanent residential dwelling nor is it used for this purpose, it is occupied most weekends and on less frequent occasions it is occupied continuously for one to two weeks.

The previous owner of HVO, Coal & Allied, and the HVGC entered into a Deed of Agreement (Deed) for the 'Warkworth Airstrip' on 11 April 2002. The CMA between Coal & Allied (now HVO) and HVGC was subsequently prepared to replace the Deed. This AMP is an annexure to the CMA. Coal & Allied had developed the CMA to record concessions and mitigations made by Coal & Allied to the HVGC in consideration for the HVGC agreeing to the AMP. The CMA also acts as a written negotiated air quality and noise agreement (Relating to Conditions 2 and 19 of PA 06-0261).

The management measures outlined in this AMP are primarily based on activities in Permitted Mining areas as described in the CMA. In effect the AMP is a staged management plan, where certain management actions are required dependent on the status of mining activities in the Permitted Mining areas. The Permitted Mining areas include Glider Pit 1 (Riverview South East Extension Area), Glider Pit 2 and South Lemington Pit 2 (also known as Glider Pit 3 in Appendix A). The Riverview South East Extension Area as depicted in Figure 5.1 of the HVO South Project Environmental Assessment was reduced in size and only involves mining activities associated with Glider Pit 1. Figure 1 shows the location of the Glider Pits.

At the present time mining activities are not occurring and are not currently planned to occur in Permitted Mining areas. Status of Permitted Mining areas is as follows:



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Glider Pit 1

A portion of Glider pit 1 has been mined, with overburden backfilled into the void rather than being placed adjacent to the runway as depicted in Appendix A. This area has been rehabilitated.

Glider Pit 2

Glider Pit 2 has been mined and rehabilitated.

Lemington South Pit 2

Lemington South Pit 2 (Glider Pit 3) is yet to be mined. Prior to commencing mining in South Lemington Pit 2, the Amenity Management Plan will be reviewed in consultation with the Hunter Valley Gliding Club and if necessary updated. HVO will commence reviewing the plan in consultation with the Hunter Valley Gliding Club 12 months prior to mining commencing.

While not a Permitted Mining area, Lemington South Pit 1 has been partially mined and mining is approved to continue at some future time.

This AMP has been developed in consultation with HVGC with an initial meeting with the HVGC held on Friday 14 February 2020 to discuss the proposed changes to the AMP. Following this meeting, the HVGC provided feedback via email on 5 April 2020 and 8 October 2021. Changes to the plan as a result of consultation comments are detailed in Appendix F.





Figure 1 - HVGC within the Project Approval boundary of HVO South*



Note

The HVO South Project Approval (PA 06_0261) refers to the Riverview South East Extension Area which is shown in Figure 5.1 of the HVO South the HVO South Coal Project Environmental Assessment, ERM 2008. The extension area has been reduced to only include Glider Pit 1 mining. South Lemington Pit 2 is referred to as Glider Pit 3 in Appendix 1 of this plan.

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3 | SCOPE

The scope of this AMP addresses amenity issues and other approval conditions that relate to the HVGC including OLS* considerations.

The relevant conditions are given below in Table 1.

Table 1 -	Relevant PA	06 02	261 Cond	ditions to	AMP

APPROVAL REFERENCE	APPROVAL CONDITION	RELEVANT SECTION OF AMP
Condition 2, Schedule 2	The Applicant must carry out the development generally in accordance with the: a. EA; b. statement of commitments; c. EA (Mod1); d. EA (Mod 2); e. EA (Mod 2); e. EA (Mod 3); f. EA (Mod 4); g. EA (Mod 5); h. Modification Report (MOD 6); i. Modification Report (MOD 7); j. Modification Report (MOD 8); and k. development layout.	Section 1
Condition 2, Schedule 2A	The Applicant must carry out the development in accordance with the conditions of this consent.	Section 1
Condition 47, Schedule 3	 While HVGC continues to use its facilities within the site, the Proponent must maintain an agreement with HVGC to address the potential impact of the mine on the use and operation of HVGC's facilities, including the potential impacts to the flight paths from dragline operations. This agreement must take into consideration the impacts of the dragline position on: Useable length of the runway; Interference with flight paths; Guidelines of the Civil Aviation Safety Authority 	Section 5.1
Condition 48, Schedule 3	The Proponent must not conduct any activity associated with the Project above the obstacle limitation surface (OLS) as shown in Figure 2.3 of the HVO South Coal Project Response to Submissions Report (July 2008) unless agreed with HVGC.	Section 6.2

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APPROVAL REFERENCE	APPROVAL CONDITION	RELEVANT SECTION OF AMP
Condition 49, Schedule 3	The Proponent must develop an Amenity Management Plan for HVGC's facilities within the site. This Plan shall: a. be prepared in consultation with the HVGC	Section 2
	 be submitted to the Secretary for approval 6 months prior to the commencement of mining in the Riverview South East Extension Area, or otherwise agreed by the Secretary; 	N/A. Plan approved Jan 2013. Mining in South East Extension Area (Glider Pit 1) commenced in 2014.
	c. include a risk assessment to identify those circumstances most likely to generate impacts from mining operations on gliding activities and use of the club's residential facilities	Section 4
	d. include details of any proposed modifications to the HVO South mine plan to mitigate the potential impacts identified in the risk assessment required under paragraph c	Section 4
	e. identify and implement management for mining activities to ensure that air safety impacts are minimised and OLS limits in condition 48 are adhered to;	Section 6.1
	f. identify and implement management measures for mining activities to ensure that air quality and noise emissions meet respective impact assessment criteria, or obtain written agreement from the HVGC to exceed these criteria;	Section 6.3 and 6.4 and 7.3
	 g. include a program to monitor and report on the effectiveness of the mine plan modifications required under paragraph (d) and the management measures required under paragraphs (e) and (f); and 	Section 4.2
	 h. include notification procedures for prior notification of potentially disruptive activities at either HVO South or the HVGC site and procedures for notifying HVGC of any exceedances of the relevant impact assessment criteria and/or OLS limits at HVO South, to the satisfactory of the Secretary. 	Section 7.2, 7.3 and 7.4

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APPROVAL REFERENCE	APPROVAL CONDITION	RELEVANT SECTION OF AMP
	If the Proponent and HVGC cannot agree on the level or composition of the Amenity Management Plan, then either party may refer the matter to the Secretary for resolution.	Section 8
	Should the HVGC cease to operate its facilities at the site, the Proponents obligations under this condition shall cease. The Amenity Management Plan, must be reviewed in consultation with the HVGC and if necessary updated, prior to the commencement of mining in South Lemington Pit 2.	Section 8

* CASA 2003 defines an OLS as "conceptual (imaginary) surfaces associated with a runway, which identify the lower limits of the aerodrome airspace above which objects become obstacles to aircraft operations".



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In addition, the AMP covers the management of additional HVGC infrastructure including access roads, services, drainage, and fencing, as outlined in the CMA commitments in Table 2.

Table 2 - Relevant CMA Conditions relevant to AMP

CMA REFERENCE		RELEVANT SECTION OF AMP
Schedule 1	During Permitted Mining, Coal & Allied will: a. relocate the phone lines to a point nominated by the Gliding Club on Gliding Club Land;	Section 5.4
	 relocate the power lines to a point nominated by the Gliding Club on the Gliding Club Land; 	Section 5.4
	c. implement the monitoring commitments set out in the Amenity Management Plan;	Section 6
	d. if determined by the Gliding Club as being necessary, construct a new 'all weather' road access from Comleroi Road to the Clubhouse with adequate drainage and crash safe fencing and gates;	Section 5.4
	The location of phone lines, power lines, monitoring sites and (if needed) access road and fencing and gates affecting the Gliding Club Land is to be reasonably acceptable to the Gliding Club.	Section 5.4



4 | DEVELOPMENT OF THE AMP

The following tasks were undertaken in the development of the AMP:

- a risk assessment to identify those circumstances most likely to generate impacts from mining operations on:
 - o gliding activities, and
 - o use of the HVGC's residential facilities;
- modification to the existing mine plans to minimise the potential for impact of the identified risks;
- assessment of the modified mine plan to identify the potential impacts to:
 - amenity and
 - the OLS;
- development of
 - o management and monitoring measures and
 - notification procedures to manage potential impacts;
- report development.

A parcel of land located to the south-west of the airstrip is owned by United Collieries Pty Limited (United). The 'revised mine plan' or 'revised Glider Pit mine plan' (Appendix D) assumed a scenario of HVO acquiring that United owned land and encroaches on this land.

Mine progression plans' (Appendix D:) are superseded. They are included as an historic reference point, to indicate the extent of mining on which the impact assessments in this AMP were based.

The revised Glider Pit mine plan (Appendix A) has formed the basis of air quality, noise, air safety and infrastructure assessments presented in this Plan.

This plan outlines the greatest predicted impact on the Gliding Club. As the permitted mine plan does not utilise the United-owned land, therefore it would be possible for the level of impact to be less than that outlined, due to the disturbance footprint being smaller.

The 'Permitted Mining' (refer to the mine progression schematic, Appendix A) excludes mining on the United owned land.

It is noted that, during the course of operational implementation, minor alterations to these mine plans may occur. However, the potential environmental and safety impacts would remain as described in this AMP, and managed accordingly.

It is also noted that at the time of updating this plan, active mining is not currently occurring in Glider Pits 1 or 2 or Lemington South Pits 1 and 2.



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4.1 | ASSESSMENT OF RISKS

Risks to HVGC arise from safety, environmental amenity and infrastructure considerations, specifically:

- the potential intrusion of mining equipment above the OLS, an air safety issue;
- loss of amenity due to unacceptable air quality;
- loss of amenity due to excessive noise; and
- disruption to HVGC infrastructure from mining activities

4.1.1 | SAFETY

Currently HVO are not actively mining the Permitted Mining area. If mining activities recommence in the future, HVO must only position operating equipment above the OLS with the permission of the HVGC; i.e. removing the possibility of operating equipment interfering with HVGC aircraft.

4.1.2 EXCEEDANCE OF NOISE AND AIR QUALITY LIMITS

Risk assessments, and preliminary noise and air quality modelling determined that the probability of exceeding approval limits for noise and air quality is a function of the simultaneous occurrence of the following:

- 1. HVGC being used or occupied;
- mining equipment operating in the south eastern area of the Glider Pit (Glider Pit 1) (referred to as the Riverview South East Extension in the HVO South Coal Project Environmental Assessment, ERM 2008); and
- 3. the presence of westerly winds or winds having a westerly component.

At the time of updating this plan, active mining is not currently occurring in Glider Pits 1 or 2. Therefore, by eliminating mining equipment outlined in point 2, the probability of exceeding noise and air quality limits would be low.

4.1.3 | DISRUPTION TO HVGC INFRASTRUCTURE

The potential for mining activities to interfere with specific HVGC infrastructure was assessed and means of ensuring the satisfactory use and maintenance of the item (if required) was determined. Refer to Section 5.4.

4.2 | MINE PLANNING

A portion of Glider Pit 1 has been mined, with overburden backfilled into the void rather than being placed adjacent to the runway as depicted in Appendix A. This area has been rehabilitated and subsequent mining is not currently planned. Glider Pit 2 has been mined and rehabilitated. Lemington South Pit 2 is yet to be mined. Lemington South Pit 1 has been partially mined and mining is planned to continue at some future time.

See Figure 2 for aerial showing current landform map.





Figure 2 - Current landform map of Glider Pit (Glider Pits 1 and 2 which have been mined)

Changes to the approved mine plan would require modification to the HVO South Project Approval and would trigger a review of this plan

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5 | POTENTIAL IMPACTS ON THE HVGC

5.1 | OBSTACLE LIMITATION SURFACE (OLS)

The dragline, which is 53.7m high, has been identified by the HVGC as a concern for air safety, if located within the Glider Pit.

There are currently no guidelines for air space protection around glider runways. The Civil Aviation Safety Authority (CASA) has developed equivalent guidelines for aerodromes, which will be applied to this project. CASA identifies the need to maintain OLS surrounding runways. The OLS have been defined for the HVGC runway, in accordance with CASA guidelines, as shown in Figure 3.

With respect to Condition 48 (see Section 3), design of the pit and overburden dumps and mine planning in the proximity of the HVGC has sought to avoid breaching the OLS where possible.

Mining within the Glider Pits 1 and 2 area has ceased, however if mining recommences in the area, prestrip mining operations using trucks and electric shovels/excavators or loaders may be undertaken to lower the final dump surface to below the OLS. No permanent structures, spoil dumps or final landform will be above the OLS. Breaches of the OLS will be restricted to short-term intrusions by equipment and dragline spoils.

At present only rehabilitation maintenance works within the Glider Pits 1 and 2 at HVO South have the potential to encroach on air space near the HVGC airstrip. When the HVGC is in use, and if not appropriately managed, this could pose an air safety hazard for aircraft during take-off and landing, i.e. when they are low-flying.





Figure 3 - Obstacle Limitation Surface at HVO (note that 5% or 1 :20 gradient from the ground surface level of the airstrip at line a to a maximum height of 80. 20% of 1;5 gradient from the ground surface level of the airstrip at line b to a maximum height of 45

HVO are only to breach the OLS subject to implementation of strict management and notification protocols, as set out in Section 7.2.2 and subject to prior agreement with the HVGC. The measures protect the safety and continuity of gliding activities at the HVGC, whilst allowing HVO to optimise resource recovery from its land.

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5.2 | NOISE

An assessment of the potential noise impacts resulting from the revised mine plan was undertaken by EMGA, 2009. Potential impacts and management are summarised in section 6.3. The full report is found in Appendix B.

5.2.1 | NOISE APPROVAL LIMITS

Table 2 (Noise impact assessment criteria dB(A) in Schedule 3 Condition 2 of PA 06_0261 stipulates noise limits.

The noise criterion for the HVGC during the day, evening and night is 55 dB(A) Leq(15 minute). The condition notes that "Noise impacts at HVGC are to be assessed in the immediate vicinity of its residential facilities and/or clubhouse. Noise impact assessment limits are only applicable during times of use that have been notified by HVGC to the Proponent".

HVO's existing environmental management plans and procedures, which include ongoing noise monitoring, will be used to assess the performance of the mining operations against the Project Approval noise limits. These are addressed in Section 6.3.

A negotiated written noise agreement (CMA) with the HVGC as outlined in Condition 2 of the project approval sets out how HVO is required to manage exceedances of the noise approval limits. Management measures are described in Section 6.3.

5.3 | AIR QUALITY

An assessment of the potential air quality impacts resulting from the modified mine plan was undertaken by PAE Holmes, 2009. Potential impacts and management are summarised in section 6.4. The full report constitutes Appendix C.

5.3.1 | AIR QUALITY APPROVAL LIMITS

Schedule 3, Condition 19 of PA06_0261 (Table 8) provides Air Quality assessment criteria relevant to the HVGC. Criteria from Table 8 have been extracted and reproduced in Table 3 of this management plan. Table 3. Air Quality Criteria from Table 8, Schedule 3, Condition 19 of PA06_0261

POLLUTANT	AVERAGING PERIOD	CONCENTRATION
Particulate Matter <10µm (PM10)	24-hour Annual	50 μg/m3 25 μg/m3
Particulate Matter <2.5µm (PM2.5)	24-hour Annual	25 μg/m3 8 μg/m3
Total suspended particulate (TSP) matter	Annual	90 μg/m3

The condition notes that "Air Quality impacts at HVGC are to be assessed in the immediate vicinity of its residential facilities and/or clubhouse. Air Quality limits are only applicable during times of use that have been notified by HVGC to the Applicant".

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The condition also notes that "if the Proponent has a written negotiated air quality agreement with any landowner or HVGC to exceed the air quality limits in Table 8 and a copy of this agreement has been forwarded to the Department and EPA, then the Proponent may exceed the air limits in Table 8 in accordance with the negotiated air quality agreement".

A written negotiated air quality agreement with HVGC (CMA) as outlined in condition 19 of the project approval sets out how HVO is required to manage exceedances of the air quality approval limits. Management measures are described in Section 6.4.

5.4 | INFRASTRUCTURE (NOT CURRENTLY TRIGGERED)

Infrastructure matters as outlined in Section 13, and Schedule 1 of the CMA are discussed below. Note that if these items are required by the HVGC, their locations must be nominated by the Club, and 'the location of phone lines, power lines, monitoring sites and (if needed) access road and fencing and gates affecting the Gliding Club Land is to be reasonably acceptable to the Gliding Club'.

The infrastructure requirements discussed in Section 5.4.1 to 5.4.4 have arisen from discussions with HVO and the HVGC in the event that HVO commences mining in South Lemington Pit 2 south of Comleroi Road. This may result in Comleroi Road being closed and access to HVGC then being provided via the private road and a new entry at the intersection of the private road and Comleroi Road. In this case improved fencing may be required to separate the mine operations from the HVGC, in addition to the potential for water flows to be modified.

5.4.1 | ACCESS ROADS

An all-weather access roads, if required, will be constructed from Comleroi Road to the Clubhouse. The road will continue to provide 24 hour / 7 days per week access for vehicles including cars towing glider trailers and semi-trailer fuel trucks. The road will be constructed with sufficient load capacity for occasional use by fuel trucks. The road will be maintained over the life of the mine and will be constructed with adequate drainage. that would provide a problem for long glider trailers.

5.4.2 | POWER AND TELEPHONE SERVICES

If required, power and phone lines will be relocated within the Gliding Club Land. Unrestricted 24 hour/7 days per week power and telephone services will be maintained.

5.4.3 | DRAINAGE OF SURFACE RUNOFF

If any earthworks have the potential to interfere with existing surface water drainage then the design and implementation of those earthworks will include facilities to ensure that surface water continues to be drained at least to the existing standard. Temporary earthworks will be maintained to be effective throughout the duration of earthworks. Permanent surface water drainage will be designed and constructed so that they remain effective during and beyond the mine life.

5.4.4 | FENCING CONSTRUCTION

Crash safe fencing and gates on the access road from Comleroi Road to the Clubhouse (if constructed) will be provided, if required. The design and materials used will be considered in consultation with the club.



6 | MANAGEMENT AND MONITORING MEASURES

6.1 | COMPENSATION FOR MINING IMPACTS

In accordance with Section 13.12 of the Concessions and Mitigation Agreement (CMA), if the HVGC is deemed to be impacted by Permitted Mining and meets all conditions of Section 13.11 of the CMA the HVGC is entitled to seek compensation for these impacts from HVO.

6.2 | OBSTACLE LIMITATION SURFACE

Management measures to address the proposed breaches of the OLS are as follows:

- implementation of notification protocols between HVO and the HVGC, regarding the timing of gliding activities and the nature of proposed OLS breaches by HVO (see Section 7 for further detail);
- implementation of dust control measures set out in Section 6.4, to minimise the potential for dust to breach the OLS; and
- lighting and/or marking of obstacles, in accordance with CASA guidelines, to improve the safety of unannounced aircraft in the event that mining in the Permitted Mining area recommences.

6.3 | NOISE

6.3.1 | MANAGEMENT MEASURES

Detailed noise management procedures currently govern the management of noise across HVO South as detailed in the <u>HVO Noise Management Plan</u>, and the <u>HVO Blast Management Plan</u>.

Management measures relating specifically to the HVGC include:

- When operating in Glider Pits 1 and 2, existing analysis of wind data identifies the night period as when prevailing westerly winds are prominent and will cause mining noise levels at the HVGC to be elevated. Mining in South Lemington Pit 2 is likely to result in higher levels during south easterly winds.
- A record of times the HVGC will be used at night for recreation should be maintained with the proponent, as required by the Project Approval. If HVO recommences mining within the Permitted Mining area, planned night time mining activities within this area will need to consider prevailing winds for the coming evening and night; and
- If HVO recommence mining within the Permitted Mining area, a risk assessment will be conducted to ensure sufficient noise controls are in place.



6.3.2 | MONITORING MEASURES

Ongoing noise monitoring will be used to assess the performance of the mining operations against the Project Approval noise limits. HVO's noise monitoring programme includes a combination of real-time and attended monitoring measures and noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in the Project Approval.

Additional measures relating specifically to the HVGC during Permitted Mining are:

- If HVO recommence mining within the Permitted Mining area, confirm mining noise levels from the area by undertaking monitoring initially on evenings and nights the HVGC is not being used, and thereafter as part of HVO's monitoring program. This monitoring is to continue whilst the HVGC is being used at night and until such time mining in the Permitted Mining area is concluded. Monitoring may also be triggered by any complaints from the HVGC occupants. Features of the monitoring to be undertaken include:
 - monitoring will be undertaken at the most affected point at the Hunter Valley Gliding Club, in accordance with the Noise Policy for Industry (NSW EPA, 2017). If this is not possible, an alternative suitably representative location will be used;
 - frequency and timing of monitoring will ensure adequate samples are taken to represent noise received by the HVGC and would target nights when forecast conditions indicate potential for elevated noise.
 - the monitor must capture noise metrics such as L90,15minute, Leq,15minute, L10,15minute and Lmax both as a total value and as determined as a sole contribution from HVO South, where possible;
 - observations made during monitoring must include descriptions of the source of noise to such detail that the source's direction can be confirmed and its character and nature be identified, with a view to maximising the potential of positively identifying any source that may be exceeding limits or is otherwise dominant; and
 - if monitoring shows that mining noise levels at the HVGC exceed the Project Approval, an investigation into the source of the exceedance must be undertaken within one week of the identified exceedance or prior to the next use of the club facilities. All reasonable and feasible mitigation of such exceedances must be considered and adopted to ensure noise levels are minimised and reduced to below approval limits, unless an alternate agreement is obtained from the HVGC.
 - As per <u>HVO's Noise Management Plan</u>, exceedances are also notified to the Mine Supervisor directly following a measurement to enable investigation into the source of the noise and any required modifications on the night.
- if occupiers experience nuisance noise during the use of accommodation, the club may call the mine
 using the protocol in Section 7 and request that the mine review its activities to identify and mitigate
 the offensive source. This may require additional attended noise monitoring or field inspection by HVO
 staff at the club to verify whether the noise is creating a nuisance. A mine representative would
 assess the noise and if required implement operational controls such as change to dumping or
 shutting down of appropriate equipment.



6.4 | AIR QUALITY

6.4.1 | MANAGEMENT MEASURES

Detailed air quality management procedures currently govern the management of air quality across HVO South, as detailed in the <u>HVO Air Quality and Greenhouse Gas Management Plan</u>.

Unfavourable air quality scenarios modelled for the Gliding Club are based on HVO operating the dragline and mining equipment within Glider Pit 2. Mining works in the Glider Pits 1 and 2 had ceased at the time of updating this AMP, and rehabilitation works are complete.

Options that will be considered should unacceptable dust from Permitted Mining be interfering with HVGC activities on negotiated days include equipment used, location of operations and the potential for campaign mining.

If the day is one nominated by HVGC as a "gliding day" and an air quality alarm (see Table 4) has been received by HVO in the preceding 2 hours, then HVO personnel will assess the situation and determine if, based on an analysis of wind direction, activities in the Permitted Mining area are responsible. If they are, then HVO shall ensure a progressive reduction in activities leading to reduced dust emissions as follows (see the Risk Response Matrix from the <u>Air Quality and Greenhouse Gas Management Plan</u>):

- notify HVGC of air quality alarm(s);
- implement changes to operations (activities in the Permitted Mining area) to reduce impact;
- communicate with Dispatch operational changes made and to verify effectiveness of changes; and

if the modifications are deemed effective: document the source and operational changes made in alarm response system if the modifications are not effective then the potential contributing source(s) should be reassessed and likely contributing equipment suspended.

Any complaint received from the club regarding air quality, will be investigated, and, where the investigation identifies potential non-compliance against a consent or licence condition, mitigating action will be taken. Investigation into air quality complaints will generally involve a visual inspection of operating areas and a check of real time monitoring data to confirm dust levels at nearby sensitive receptors.

The details of all air quality complaints, and any mitigating actions taken, will be circulated to senior management. Where requested, follow-up correspondence with the complainant will be provided.

In accordance with the conditions of EPL640 relating to handling of pollution complaints, HVO will maintain a register of complaints, recording the following information (at minimum):

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow up contact with the complainant and;
- If no action was taken by the licensee, the reason why no action was taken.

A record of each complaint will be kept for a minimum of four years and will be produced on request to any authorised officer of the EPA.

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6.4.2 | MONITORING MEASURES

Ongoing air quality monitoring will be used to assess the performance of the mining operations against the Project Approval air quality limits. The existing HVO air quality monitoring system includes depositional dust gauges, high volume air samplers and monitors to measure PM10 concentrations in real-time as shown in Figure 4.



Figure 4 - Location of Air Quality Monitors

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Additional requirements relating specifically to the HVGC are:

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- PM2.5 will be assessed using HVO's Maison Dieu HVAS monitor as a representative monitor of HVO South operations;
- Operation of a PM10 High Volume Air Sampler monitor in the vicinity of the club house or other location as agreed with HVGC, and sampling from the monitor at the frequency of every sixth day; and
- Implementation and response to real-time air quality and high wind alarms from HVO's existing "Warkworth" & "Knodlers Lane" real-time PM10, and "Cheshunt" meteorological monitoring stations, (Table 4), including review of operations and modifications as required (as per Section 6.4.1).

Prior to mining in Permitted Mining areas an update to the Management Plan would occur to include installation of a real-time dust monitor on the HVGC site

MONITORING LOCATION	TRIGGER LEVEL	RESPONSE ACTIONS
HVO Cheshunt Met Station	Wind Speed >8m/sec	 Validation of alarm (verify monitors functioning correctly
Knodlers Lane and Warkworth	 Stage one 10 min average PM10 > 150µg/m3 (winds in arc of mine to monitor) 1 hour average PM10 > 50µg/m3 for three consecutive hours (winds in arc of mine to monitor) Stage two rolling 24hr average PM10 > 50µg/m3 for six consecutive hours (winds in arc of mine to monitor) 10min average PM10 >150 µg/m3 for three consecutive hours (winds in arc of mine to monitor) 	 and review meteorological conditions) Notify relevant Open Cut Examiner Response as per flowchart below

Table 4 - HVGC Air Quality Impact Assessment Criteria

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Figure 5 - Response to real-time dust alarm



7 | NOTIFICATION PROCEDURES

Notification procedures have been developed between HVO and HVGC for the following circumstances during Permitted Mining:

- proposing to have mining equipment above the OLS ;
- exceeding noise limits;
- exceeding air quality limits;
- planned gliding activities and residential occupancy at the HVGC; and
- blast notification

7.1 | NOTIFICATIONS

7.1.1 | NOTIFICATION FROM HVGC TO HVO:

Environmental Complaints from members of the HVGC can be lodged via the HVO Complaints and Blasting Hotline (1800 888 733)

General notifications: Environmentandcommunity@hvo.com.au

7.1.2 | NOTIFICATION FROM HVO TO HVGC:

Email notifications are sent to: secretary@hvgc.com.au and treasurer@hvgc.com.au.

7.2 | OLS IMPINGEMENT PERMISSION PROCEDURE

7.2.1 | PURPOSE

By obtaining permission from the HVGC to breach the OLS at nominated times and locations, HVO will ensure that aircraft safety will not be compromised through having an unknown obstacle in an airspace that could reasonably be entered by aircraft operating out of the HVGC facility.

7.2.2 | PROCEDURE

A member from the HVO Environment and Community team will advise in writing that the company wishes to operate plant/equipment which extends above the OLS. HVO will provide the following details:

- nature of the obstacle which will enter the OLS (e.g. dragline);
- distance and bearing of the obstacle from the runway;
- height of the obstacle in relation to the runway elevation; and
- length of time it will be an obstacle.

The correspondence will be addressed to the Secretary of the HVGC. The Club will be obliged to indicate permission or otherwise within four days of the receipt of the correspondence. Copies of the correspondence are to be retained for the duration of mining operations being in the vicinity of the airstrip. Correspondence by email will be satisfactory.



7.3 | PROCEDURE TO ADVISE THAT A NOISE OR AIR QUALITY LIMIT HAS BEEN EXCEEDED

7.3.1 | PURPOSE

The provision of this information by HVO will enable the HVGC to gauge the efficacy of the measures that are to be put in place to deliver acceptable noise and air quality levels at the site and to respond if the organisation deems it is warranted.

7.3.2 | PROCEDURE

HVO will advise the HVGC if noise set out in the approval conditions are exceeded within seven days of the receipt of the final report. The correspondence will be addressed to the Secretary of the HVGC. Copies of the correspondence are to be retained for the duration of mining operations being in the vicinity of the airstrip. Correspondence by email will be satisfactory.

7.4 | GLIDING ACTIVITIES AND OCCUPANCY ADVICE PROCEDURE

7.4.1 | PURPOSE

An understanding of HVGC's planned activities and residential occupancy would assist HVO with the planning of its mining operations. For example, if a major gliding event was planned for a certain date, the mining operations for that day or days could be conducted to minimise impacts in terms of dust and noise for the club and its patrons.

7.4.2 | PROCEDURE

The HVGC will advise in writing the club's planned quarterly activities. The advice will highlight major events. The advice will be furnished again at the start of the second twelve months of the operation of this AMP. The HVGC will advise HVO of any changes to major event plans as soon as practical after such changes become known to the HVGC. HVO will acknowledge receipt of the HVGC's advice within one week of receiving it. Correspondence by email will be satisfactory. The correspondence should be addressed to HVO Manager Environment & Community (HVO) via:

Environmentandcommunity@hvo.com.au which is received by all members of the Environment and Community Team.

Should use of the site be scheduled at short notice and that use is not part of the annual planned activities already advised to HVO, the HVGC should advise HVO of these activities. This should occur as soon as practicable once the activities are known by the HVGC.



7.5 | BLASTING MANAGEMENT MEASURES

Detailed blast management procedures currently govern blast management across HVO South as detailed in the <u>HVO Blast Management Plan</u>. Standard notification procedures require that HVO provide notification of the blasting schedule to all interested landholders within 2km of the mining area. To meet this procedure HVO provides the following notification methods:

- blasting hotline and subscription SMS service for most up-to-date blasting time information
- advertise the blasting hotline in the local paper and HVO website
- up-to-date blasting schedule published on the HVO website.

In addition to the standard procedure HVO will apply the following procedure to proposed blasting by HVO Mine within 500 metres of the Gliding Club Land.

1. HVO Mine to provide the Gliding Club notice of the proposed blast on the Friday in the week prior to the blast.

That notice will be in writing and emailed to: secretary@hvgc.com.au and treasurer@hvgc.com.au

The blast notification will include a map setting out the proposed location of the blast and the 500 metre exclusion zone from it.

2. A second notice will be given on the morning of the day of the blast.

The second notice will be given in the same manner and to the same personnel as the first notice in 1.

- 3. HVO personnel will also access the "HVOedit" web page on the HVGC web site to maintain notifications about time and place of intended blasts and to remove those notifications when the blast activity has been completed or cancelled.
- 4. In addition to the notice in 1 and 2, on the morning of the day of the blast HVO personnel will place the following sign at the entrance to the Gliding Club:
- Blast Notification
- A blast is scheduled for [time] am/pm on [date].
- The blast will impact for approximately [] minutes,
- 5. In addition to the notice requirements above, in the hour prior to the blast, HVO personnel will physically inspect the Gliding Club Clubhouse and the areas about the caravans and hangers to confirm that there are no individuals within the blast exclusion zone. Once cleared, a blast sentry will be placed either at the entrance to the Gliding Club or along Comleroi road in both directions of travel.
- 6. HVO will also assign a suitably experienced, trained and qualified person to give 10 minute, 5 minute and 1 minute warnings ahead of firing on the local aeronautical frequency of 126.7 Mhz and for this period monitor the local aeronautical frequency.
- 7. This procedure will apply to all proposed blasts within 500 metres of the Gliding Club Land and the purpose of the notification is to ensure the following exclusion zones:
- No person within 500 metres of the proposed blast location once sentries have been put in place.
- No person within 500 metres of the proposed blast until the "all clear" given and sentries are removed from their post.
- 8. This blast notification procedure is subject to review at any time if reasonably requested by HVO or the Gliding Club.

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9. Except in the case of emergency where a blast is required to proceed for mine safety, blasting within 500 metres will not be scheduled to take place on days when the Gliding Club has advised HVO that gliding operations are scheduled.



Figure 6 - HVGC Notifiable Activity

8 | AMP REVIEW

A review of the AMP will be undertaken as per Condition 4A of Schedule 5 of the Project Approval. Prior to commencing mining in South Lemington Pit 2, the Amenity Management Plan will be reviewed in consultation with the Hunter Valley Gliding Club and if necessary updated and published on the HVO website as required by Condition 9 of Schedule 5 of PA 06_0261.

In the event that the HVGC cease to operate its facilities at the site, HVO obligations shall cease. If HVO and the HVGC cannot agree on the level or composition of the Amenity Management Plan, then either party may refer the matter to the Secretary for resolution.

Any major amendments to the AMP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and the HVGC. Minor changes such as formatting edits may be made with version control.



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9 | ACCOUNTABILITIES

ROLES	ACCOUNTABILITIES
Environment and Community Coordinator, HVO	 Review and revise the AMP as required Provide relevant notifications to HVGC Coordinate monitoring activities Coordinate implementation of infrastructure if mining in Lemington Pit 2 is to commence Notify HVGC in relation to Mining equipment above the OLS Exceeding noise limits Exceeding air quality limits Blast notifications
Mine Supervisor, HVO	 Respond to air quality alarms and noise exceedances and make modifications as required.
HVGC	Advise HVO of planned gliding activities and residential occupancy at the HVGC

10 | DEFINITIONS

NAME/TITLE	DESCRIPTION
AMP	Amenity Management Plan
CASA	Civil Aviation Safety Authority
СМА	Concessions and Mitigation Agreement
Coal & Allied	Coal & Allied Operations Pty Limited, former owner of HVO. HVO is currently operated under a Joint Venture between Yancoal and Glencore.
DA	Development Application
Day	Monday to Saturday 7am to 6pm and Sundays and Public Holidays 8am to 6pm

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NAME/TI	TLE	DESCRIF	TION					
dB(A)		Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.						
DPIE		NSW Depa	artment of Plannir	ng Industry an	d Environment			
ENM		Environmental Noise Model						
ERM		Environme	Environmental Resources Management Australia Pty Limited					
Evening		Monday to	Saturday 6pm to	10pm				
g/m2/mont	h	grams per	square metre per	month				
HVGC		Hunter Valley Gliding Club						
HVO Sout	1	Hunter Valley Operations South						
INP		Industrial Noise Policy						
ISCMOD		modified version of the United States Environmental Protection Agency ISCST3 model						
km		kilometres						
L10,15min	ute	A noise lev is approxir	vel which is excee nately equivalent	eded 10% of the averag	ne time (in this case e of maximum noise	15-minutes). It levels.		
L90,15min	ute	Commonly 90% of the	referred to as the time (in this case	e background e 15-minutes)	noise, this is the lev	el exceeded		
Leq(15 mir	nute)	The summation of noise over a selected period of time. It is the energy average noise from a source, and is the equivalent continuous sound pressure level over a given period (in this case 15-minutes).						
Lmax		The maximum root mean squared (RMS) sound pressure level received at the microphone during a measuring interval.						
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NAME/TITLE	DESCRIPTION
LCPP	Lemington Coal Preparation Plant
m	metres
Night	Monday to Saturday from 10pm to 7am and Sundays and Public Holidays 10pm to 8am
Noise Policy for Industry (2017)	The policy will provide a framework and criteria for the consistent assessment of the impact and control of noise from industrial developments
NSW	New South Wales
OLS	Obstacle Limitation Surfaces
Permitted Mining	Means the mining operations to be conducted by the Hunter Valley Operations Mine in the areas identified in Appendix A of the AMP.
PA06 0261	Project Approval – Hunter Valley Operations South Coal Project
PM10	Particulate Matter of 10 microns in diameter or smaller
PM2.5	Particulate Matter of 2.5 microns in diameter or smaller
Riverview South East Extension	Part of the Permitted Mining area and referred to as Glider Pit 1 in Appendix A.
ТЕОМ	tapered element oscillating microbalance monitor
TSP	Total Suspended Particulates



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11 | DOCUMENT INFORMATION

Relevant legislation, standards and other reference information must be regularly reviewed and monitored for updates and should be included in the site management system. Related documents and reference information in this section provides the linkage and source to develop and maintain site compliance information.

11.1 RELATED DOCUMENTS

Related documents, listed in Table below, are documents directly related to or referenced from within this document.

NUMBER	TITLE
HVOOC-1797567310-4028	HVO Noise Management Plan
HVOOC-1797567310-2595	HVO Air Quality and Greenhouse Gas Management Plan
HVOOC-1797567310-408	HVO Blast Management Plan
	HVO South Project Approval PA06_0261

11.2 | REFERENCE INFORMATION

Reference information, listed in Table below, is information that is directly referred to for the development of this document

REFERENCE

Civil Aviation Safety Authority Australia (CASA) (2003) Manual of Standards Part 139 – Aerodromes CASA, Canberra

Concessions and Mitigation Agreement, February 2013

EMGA (2009) Hunter Valley Operations South – Revised Mine Plan Acoustic Assessment Prepared for Coal & Allied (Rio Tinto Coal Australia), October 2009

ERM (2008) Hunter Valley Operations South Coal Project Environmental Assessment Report Prepared for Coal & Operations Pty Ltd, January 2008

ERM (2008) Hunter Valley Operations South Coal Project Response To Submissions Report Prepared for Coal & Operations Pty Ltd, July 2008

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REFERENCE

HVO Air Quality and Greenhouse Gas Management Plan, May 2022

NSW EPA (2017) Noise Policy for Industry

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11.3 | CHANGE INFORMATION

Full details of the document history are recorded in the document control register, by version. A summary of the current change is provided in table below. Example detail shown below.

VERSION	DATE	CHANGE DETAILS
9.2	20 February 2019	Update template Merri Bartlett, Dom Brown
9.3	28 December 2021	Review of currency of information Merri Bartlett, Andrew Speechly
9.4	5 September 2022	Review of information following DPE review Merri Bartlett, Andrew Speechly
9.5	9 August 2023	Review following Independent Environmental Audit and subsequent inclusion of a record of consultation comments and response Andrew Speechly
9.6	26 April 2024	Review to address DPHI request for information on V9.5. Template update. Andrew Speechly



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APPENDIX A: MINE PROGRESSION PLANS FOR PERMITTED MINING

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Current TOPO


1 – Glider pit 1



1.5 months

2 – Glider pit 2



2.5 months

































11 – Glider pit 3 boxcut

























PLAN | HUNTER VALLEY GLIDING CLUB AMENITY MANAGEMENT

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APPENDIX B: ACOUSTIC ASSESSMENT (EMGA, OCTOBER 2009)

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Hunter Valley Operations South - Revised Mine Plan Acoustic Assessment

Prepared for Coal & Allied (Rio Tinto Coal Australia) - October2009



Report No. J09011RP1 Draft

The preparation of this report has been in accordance with the brief provided by the Client and has relied upon the data and results collected at or under the times and conditions specified in the report. All findings, conclusions or recommendations contained within the report are based only on the aforementioned circumstances.

Approved by:	Najah Ishac
Position:	Director - Acoustic Services
Signed:	Najatituce
Date:	1 October, 2009

Environmental Management Group Australia Pty Limited PO Box 6399 Parramatta BC, Parramatta NSW 2150 www.emga.com.au

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1 Introduction

This report was prepared for Rio Tinto Coal Australia - Coal & Allied by Environmental Management Group Australia Pty Limited (EMGA) to assess environmental noise associated with proposed mining operations for the revised mine plan developed with the expectation that the Hunter Valley Gliding Club (HVGC) and grass air strip would remain in its current location. The revised mine plan has been developed to take into consideration, amongst other things, amenity impacts on the HVGC.

This document is a supplement to the Noise and Vibration report prepared for the environmental assessment titled *Hunter Valley Operations South Coal Project Environmental Assessment Report*, dated January 2008. On 24 March 2009 the Minister for Planning granted approval (06_0108) for the broader project, which included a requirement to develop an Amenity Management Plan for the HVGC and its recreational area. The information herein assesses potential impacts on the HVGC with a view to informing this plan.

This assessment is provided to demonstrate compliance with the Hunter Valley Operations South (HVO South) Project Approval conditions on noise.

1.1 Glossary

Table 1.1

Table 1.1 provides a glossary of noise related and other terms used in this assessment.

Term	Definition
ABL	Assessment Background Level (ABL) is defined in the INP as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L_{90} statistical noise levels.
dB(A)	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(LinPeak)	The peak sound pressure level (not RMS) expressed as decibels with no frequency weighting.
DECC	Department of Environment and Climate Change NSW.
HVGC	Hunter Valley Gliding Club.
HVO	Hunter Valley Operations.
INP	Industrial Noise Policy.
L ₁	The noise level exceeded for 1% of a measurement period.
L ₁₀	A noise level which is exceeded 10% of the time. It is approximately equivalent to the average of maximum noise levels.
L ₉₀	Commonly referred to as the background noise, this is the level exceeded 90% of the time.
L _{eq}	The summation of noise over a selected period of time. It is the energy average noise from a source, and is the equivalent continuous sound pressure level over a given period.
L _{max}	The maximum root mean squared (RMS) sound pressure level received at the microphone during a measuring interval.
RBL	The Rating Background Level (RBL) is an overall single figure background level representing each assessment period over the whole monitoring period. The RBL is used to determine the intrusiveness criteria for noise assessment purposes and is the median of the ABL's.
SI	Still isothermal (SI) refers to calm weather conditions (defined as no wind and standard temperature gradients).
sigma-theta (σ _θ)	The standard deviation of horizontal wind fluctuation.
Sound power level	This is a measure of the total power radiated by a source. The sound power of a source is a fundamental location of the source and is independent of the surrounding environment.
Temperature inversion	A positive temperature gradient. A meteorological condition where atmospheric temperature increases with altitude to some height.

GLOSSARY

2.1 Project Approval Limits

The HVO South Project Approval stipulates noise limits in Schedule 3 Item 2, which are reproduced below.

The table presented below has been extracted from the Project Approval:

"The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25% of any privately-owned land.

Land Number / Receiver	Day L _{Aeq(15 minute)}	Evening L _{Aeq(15 minute)}	Night L _{Aeq(15 minute)}	Night L _{A1(1 minute)}
Hunter Valley Gliding Club (when in use)	55	55	55	
7- Stapleton (Cheshunt East)	41	41	41	45
10 – Moses (Wandewoi)	37	37	37	45
Maison Dieu residences				
16 – Algie	42	42	42	45
32 – Algie (Curlewis)				
5 – Bowman, 47 – Moxey, 61 – Shearer and all other land on Shearer's Lane	41	41	41	45
17 – Algie	40	40	40	45
34 – Ernst				
24 – Clifton and Edwards and residences located within 250 metres of this residence, not otherwise listed in this table	39	39	39	45
Maison Dieu residences within 1 kilometre of Shearers Lane, not otherwise listed in this table	37	37	37	45
All other Maison Dieu residences	35	35	35	45

 Table 2: Noise impact assessment criteria dB(A)
 Image: Compact assessment criteria dB(A)

Jerrys Plains Road Residences

Land Number / Receiver	Day L _{Aeq(15 minute)}	Evening L _{Aeq(15 minute)}	Night L _{Aeq(15 minute)}	Night L _{A1(1 minute)}
36 – Smith (ex Garland)	36	36	36	45
All Jerrys Plains Road residences other than Smith	35	35	35	45
Jerrys Plains village residences	35	35	35	45
Warkworth residences				
38 - Henderson	48	48	48	45
23 – Hawkes (Springwood)	43	43	43	45
45 – Kelly and all other privately-owned land in Warkworth village	43	43	43	45
All other privately-owned land	35	35	35	45

The Director-General may require the Proponent to consider, assess and implement measures to achieve compliance with these limits.

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 2, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 2 in accordance with the negotiated noise agreement.

Notes:

- Noise impacts at HVCG are to be assessed in the immediate vicinity of its residential facilities and/or clubhouse. Noise impact assessment limits are only applicable during times of use that have been notified by HVGC to the Proponent.
- The land numbers and receiver references are as described in the EA, and shown in Appendix.
- To determine compliance with the L_{Aeq(15 minute)} noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the L_{A1(1 minute)} noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - > wind speeds of up to 3 m/s at 10 metres above ground level; or
 - temperature inversion conditions of up to 3°C/100m, plus a 2 m/s source-to-receiver component drainage flow wind at 10 metres above ground level for those receivers where applicable in accordance with the NSW Industrial Noise Policy."

2.2 Approach to Modelling

i. Operational Noise Modelling

The Environmental Noise Model (ENM) noise prediction software was used for modelling purposes. ENM takes into account distance, ground effects, atmospheric absorption and topographic detail. ENM is a DECC accepted noise prediction model and it gives consistently reliable predictions of environmental noise. Initial calculations were performed with no wind or temperature gradients, which are termed calm weather conditions. Assumed night air temperature and relative humidity were 10 °C and 80% respectively. Noise level predictions are provided in *Section 2.3*.

The model incorporates three-dimensional digitised ground contours for the surrounding land and the proposed mine plan for the HVGC area. Contours of the mine were superimposed on surrounding base topography. Equipment was placed at various locations and heights, representing potential operating conditions that could result in the greatest noise impacts for the HVGC. The model also incorporated a 2m high mound east of the dragline area. Significantly, the relative ground level of the dragline area will be 5m below the current surrounding natural ground level prior to the dragline commencing night time operations. This will effectively facilitate a 7m high barrier differential.

The noise model predicts Leq noise levels, based on equipment sound power levels. For noise modelling consistency, the current study has adopted the sound power levels reported in the 2008 EA Noise Assessment. The results assume that all plant and equipment operate simultaneously. In practice, such an operating scenario would be unlikely to occur. The results are therefore considered conservative.

ii. Noise Model Equipment Inventory

The revised mine plan considers the HVGC and aims to minimise impacts thereon. The area known as the Glider Pit has three working areas being the dragline, drill and dozer or overburden emplacement. The other active area during mining at the Glider Pit will be in the Cheshunt Pit only. The current study adopts the inventory and pit configuration used for the Cheshunt Pit night scenario identified in the EA as Scenario B2. The Lemington Coal Preparation Plant (LCPP) will not operate at this time and therefore associated transportation options considered in the EA will not apply to the current study. Similarly, plant to be used in the Glider Pit will be sourced from other parts of the mine, rendering the Riverview Pit inactive. *Figure 2.1* shows the location of modelled equipment and these areas. *Table 2.1* lists the likely equipment inventory that was modelled.

Table 2.1 MODELLED PLANT INVENTORY

Item	Quantity
Glider Pit	
Emplacement Area	
Dozer	1
Haul Truck - Waste	1
Drill Area	
Drill	1
Haul Truck – Coal	2
Loader	1
Dragline Area	
Dragline	1
Shovel	1
Haul Truck Waste	2
Cheshunt Main	
Haul Truck - Coal	10
Haul Truck - Waste	25
Dozer	8
Drill	2
Front-End-Loader	5
Grader	4
Scraper	1
Rubber-Tyred-Dozer	2
Water Cart	3
Shovel	1

2.3 Operational Noise Level Predictions

i. Calm Weather Conditions

Table 2.2 summarises calm weather noise modelling results for the subject mine plan along with the Project Approval limits for comparison. The noise levels under calm weather typify the noise received at locations surrounding the mine during the day in the absence of adverse Industrial Noise Policy (INP) assessable weather conditions. This was ascertained in the EA Noise Assessment report.

The predicted noise levels under calm weather conditions are below the Project Approval limits at all assessment locations.

Table 2.2	PREDICTED CALM WEATHER NOISE LEVELS

Assessment Location	Predicted Nois	e Level, dB(A)	Project Approval Limits	
	L _{eq,15} min	L _{1,1min}	Day, Evening & Night L _{eq,15min}	Night L _{1,1min}
Hunter Valley Gliding Club (when in use)	44	-	55	
7– Stapleton (Cheshunt East)	23	30	41	45
10 – Moses (Wandewoi)	23	22	37	45
Maison Dieu residences				
16 – Algie	24	29	42	45
32 – Algie (Curlewis)	25	31		
5 – Bowman,	24	31	41	45
47 – Moxey,	21	24		
61 – Shearer	24	30		
17 – Algie	24	31	40	45
34 – Ernst	24	30		
24 – Clifton and Edwards and	23	30	39	45
residences located within 250 metres of this residence, not otherwise listed in this table				
Maison Dieu residences within 1 kilometre of Shearers Lane, not otherwise listed in this table (Knodlers Ln used) Jerrys Plains Road Residences	23	29	37	45
36 – Smith (ex Garland)	14	10	36	45
All Jerrys Plains Road residences other than Smith	Up to 16	Up to 14	35	45
Jerrys Plains village residences	11	9	35	45
Warkworth residences				
38 - Henderson	25	32	48	45
23 – Hawkes (Springwood)	24	31	43	45
45 – Kelly and all other privately-owned land in Warkworth village	29	36	43	45

ii. Prevailing Weather Conditions

Received sound levels increase when the wind blows from source to receiver or under temperature inversion conditions and decrease when the wind blows from receiver to source or under temperature lapse conditions. A 3° C per 100m elevation temperature inversion was used as well as the prevailing winds identified in the EA Noise Assessment. The wind speeds and directions assessed are listed in *Table 2.3*.

Wind (Origin) Direction, degrees	Upper 10% Night Wind Speed, m/s
90	1.9
112.5	2.4
135	2.7
157.5	2.7
180	2.6
202.5	2.3
225	2.1

Table 2.3 Assessable INP Wind Conditions

There is a premise that if the criterion is met under calm conditions, higher noise under strong winds (>3m/s) is generally acceptable. This is because the ambient noise at receivers also increases during such weather conditions and mine noise is masked (for example, by wind induced vegetation noise). However, at wind speeds below 3 m/s and under temperature inversions, noise levels are assessable under the DECC's INP. These conditions are referred to as *INP weather conditions*.

The predicted noise levels under INP weather conditions are provided in *Table 2.4.* The results are also presented in the form of noise contours in *Figure 2.1.* These contours represent the outer envelope of noise levels assuming all assessable weather conditions (ie 3° C/100m temperature inversion and winds identified in Table 2.3) occurred concurrently for the subject mine plan. It is therefore an artificial representation of actual noise levels since winds of differing speeds and directions cannot exist at one point in time.

The predicted noise levels under INP assessable weather conditions satisfy the Project Approval limits at all assessment locations.

Assessment Location	Predicted Noise Level, dB(A)		Project Approval Limits	
	$L_{eq,15min}$	L _{1,1min}	Day, Evening & Night L _{eq,15min}	Night L _{1,1min}
Hunter Valley Gliding Club (when in use)	52	-	55	-
7- Stapleton (Cheshunt East)	41	44	41	45
10 – Moses (Wandewoi)	36	31	37	45
Maison Dieu residences				
16 – Algie	36	35	42	45
32 – Algie (Curlewis)	37	36		
5 – Bowman	38	36	41	45
47 – Moxey	38	37		
61 – Shearer	38	36		
17 – Algie	37	35	40	45
34 – Ernst	37	34		
24 – Clifton and Edwards and residences located within 250 metres of this residence, not otherwise listed in this table	37	34	39	45
Maison Dieu residences within 1 kilometre of Shearers Lane, not otherwise listed in this table (Knodlers Ln used)	37	33	37	45
Jerrys Plains Road Residences	\triangleright			
36 – Smith (ex Garland)	33	31	36	45
All Jerrys Plains Road residences other than Smith	up to 32	Up to 31	35	45
Jerrys Plains village residences	27	24	35	45
Warkworth residences				
38 - Henderson	31	34	48	45
23 – Hawkes (Springwood)	38	32	43	45
45 – Kelly and all other privately- owned land in Warkworth village	32	37	43	45

Table 2.4 PREDICTED ADVERSE WEATHER NOISE LEVELS



Hunter Valley Operations

Figure 2.1 Combined All Weather Outer Envelope Leq,15min Noise Levels, dB(A)





3 Noise Management and Monitoring

Detailed noise management procedures currently govern the management of noise across HVO South. These are part of Coal & Allied's procedures for blasting, noise monitoring and assessment as detailed in the EA Noise Assessment.

In addition, this study will provide input to the Amenity Management Plan for the HVGC. The plan will include the following considerations:

- Adopt vigilant planning for night operations in the area identified for dragline and associated plant nearest the HVGC. Analysis of wind data identifies the night period as when prevailing westerly winds are prominent and will cause mining noise levels at the HVGC to be elevated. A schedule of times the HVGC will be used at night for recreation should be maintained with the proponent as required by the Project Approval. Planned night time mining activities within the dragline area will need to consider prevailing winds for the coming evening and night by real-time scrutiny of the site's weather station data.
- When working in the dragline area of the Glider Pit, the relative height differential between the pit and surrounding natural surface must be at least 5m before night operations can commence if the HVGC is being used. A 2m high mound at the surface and to the east of the Glider Pit must also be constructed prior to dragline night operations in this pit.
- Confirm mining noise levels from the Glider Pit dragline area by undertaking monitoring initially on nights the HVGC is not being used, and regularly thereafter as part of Coal & Allied's monitoring program. This monitoring should continue whilst ever the HVGC is being used at night and until such time the Glider Pit is completed.

HUNTER VALLEY OPERATIONS SOUTH - REVISED MINE PLAN

4 Conclusion

This study considers the potential noise impacts of the revised mine plan, which incorporates mining operations in the Cheshunt and Glider Pit as described in *Section 2.2.* The acoustic assessment includes modelling of all major mining equipment at representative operational locations.

The noise modelling has shown that under calm and INP assessable weather conditions all assessment locations experience noise levels below the operational noise Project Approval limits.

Coal & Allied's existing environmental management plans and procedures, which include ongoing noise monitoring, will be used to assess the performance of the mining operations against the Project Approval noise limits.

In conclusion, noise levels from the revised mine plan are unlikely to result in impacts on the nominated assessment locations. Hence, the noise impact of the proposal is of minimal environmental concern.









PLAN | HUNTER VALLEY GLIDING CLUB AMENITY MANAGEMENT

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APPENDIX C: AIR ASSESSMENT (PAEHOLMES, AUGUST 2009)

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AIR QUALITY REPORT

DRAFT DUST AMENITY PLAN FOR MINING IN THE VICINITY OF THE GLIDER PIT

Coal & Allied

Job No: 3403

30 July 2009





PROJECT TITLE:	DRAFT DUST AMENITY PLAN FOR MINING IN THE VICINITY OF THE GLIDER PIT
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1 INTRODUCTION

This report has been prepared by PAEHolmes for Coal & Allied. Its purpose is to analyse the air quality effects of mining in the vicinity of the Hunter Valley Gliding Club (HVGC) on the operation of the club.

In 2008 an environmental assessment (EA) (including an Air Quality Assessment) was prepared for Coal & Allied to assess the effects of Coal & Allied's Hunter Valley Operations South (HVO South) Coal Project (**ERM, 2008**). The HVO South Coal Project (06_0261) was approved by the Director-General of the New South Wales (NSW) Department of Planning (DoP) on 24 March 2009. Condition 19 of the Project Approval requires that the proponent comply with certain conditions at the HVGC. The original EA did not anticipate that Condition 19 would apply and to comply with Condition 19, the project mine plan has been modified.

The report reviews the revised mine plan and determines strategies that will minimise air quality effects on HVCG operations and will allow compliance with the Project Approval.

The relevant condition is reproduced below.

Impact Assessment Criteria

Condition 19

The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the air quality impact assessment criteria listed in Tables 8, 9, and 10 at any residence on privatelyowned land, the Hunter Valley Gliding Club (when in use) or on more than 25 percent of any privatelyowned land.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	30 μg/m ³

Table 8: Long term impact assessment criteria for particulate matter

Table 9: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 μm (PM ₁₀)	24 hour	50 μg/m³

Table 10: Long term impact assessment criteria for deposited dust



Pollutant	Averaging	Maximum increase in	Maximum total deposited
	period	deposited dust level	dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Notes:

- Air quality impacts at HVGC are to be assessed in the immediate vicinity of its residential facilities and/or clubhouse. Air quality limits are only applicable during times of use that have been notified by HVGC to the Proponent.
- Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air Determination of Particulate Matter Deposited Matter Gravimetric Method, or its latest version.

However, if the Proponent has a written negotiated air quality agreement with any landowner or HVGC to exceed the air quality limits in Table 8, 9 and/or 10, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the air limits in Table 8, 9 and/or 10 in accordance with the negotiated air quality agreement.

2 BACKGROUND AND IDENTIFICATION OF ISSUES

The HVGC operates from a single grass airstrip approximately 1.6 km long and oriented along the vector 290° to 110° (west-northwest to east-southeast). Apart from the airstrip, HVGC facilities comprise a clubhouse, hangar/workshop buildings, glider trailer storage area and caravan site.

Figure 2.1 shows the airstrip and club facilities described above and the neighbouring land use. Neighbouring land use includes the open cut mine pits known as:

- Cheshunt to the north;
- Riverview to the northwest;
- Wambo to the southwest;
- United to the southwest; and
- South Lemington to the southeast.

HVGC operates on weekends and public holidays.





MGA Zone 56 (m)

Figure 2.1 : HVGC facilities and surrounding land use

Mining operations give rise to the following potential air quality/safety issues.

- Dust emissions from wind erosion, equipment operations and blasting have the potential to affect visibility.
- Dust emissions have the potential to soil exposed surfaces and equipment such as gliders, motor vehicles, caravans, club facilities, etc.
- Fly rock from blasting could endanger aircraft.
- TSP emissions and associated deposited dust have the potential to cause nuisance effects.
- PM₁₀ emissions have the potential to give rise to health effects.
- Dragline booms have the potential to intrude into airspace required by the gliders and other aircraft on final approach and during takeoff.

The report focuses primarily on air quality issues. Potential impacts due to fly rock, dust clouds from blasting and intrusion of dragline booms into air space used by the HVGC will be relatively easily managed by simply timing these events to coincide with times when the HVGC is not operating, e.g. week days. It is assumed that this degree of coordination and cooperation is possible.

Work undertaken in the EA assumed that the HVGC would be acquired by the proponent and the area would be part of the mine. This would cause the airfield to be unserviceable, at least until such time as it had been rehabilitated. Under this assumption, air quality at the club facilities would not need to be protected by any special measures other than those routinely used by the mine to suppress dust for operational reasons and to protect non-mined owned residences located several kilometres away.

To avoid closure of the airfield, the mine plan has been revised so that mining will now proceed around the airfield. While this will protect the HVGC's physical assets, it by itself, will not



guarantee protection of amenity at the HVGC. To promote the protection of amenity and ensure the health of people who might use the club, it is necessary to develop an amenity management plan. This type of assessment is not a simple task. Amenity effects caused by poor air quality are subjective and depend on the context of the exposure.

3 APPROACH TO THE ASSESSMENT AND DISCUSSION

Air quality impacts are likely to arise when the separation distance between dust generating activities associated with mining take place in proximity to dust sensitive areas on the airfield and when meteorological conditions are such as to carry dust towards the dust sensitive areas on the airfield. The dust sensitive parts of the airfield will change with time depending on what activities are occurring. For the purposes of this analysis, the air strip itself has been considered to be insensitive to dust levels unless it is actually in use. Hangars, the club house, the caravan area, the glider storage areas and permanent structures have been considered to be dust sensitive and may either need to be treated and made insensitive to dust and/or protected from dust by controls on mining.

For assessment purposes, we have identified seven parts of the airfield for which we have provided estimates of 24-hour PM_{10} under various operating scenarios. Not all of these seven areas are of equal sensitivity, but the predictions are useful in developing an amenity management plan. They are shown as points A, to G on **Figure 3.1**, which shows the airfield and immediate surrounds. They include the club house, the hangars and the area where the caravans are parked and points at either end of the airfield.

The amenity management plan makes the tentative assumption that when gliding operations are taking place, personnel are likely to be located at the downwind end of the airfield so that tugs, winches and aircraft movements will be into the wind on take-off or landing. This will mean that people associated with take-off and landing operations are generally as far from dust generating sources on the mine as is practicable. It is noted that the airfield has a slight downward slope towards the southeast. This might favour the use of the northwest end of the airfield for the operating end.

Aircraft and gliders taking off towards the northwest will approach the end of the airfield and will approach mining equipment. On occasions they will pass through increasingly high concentrations of any dust clouds that may be generated by mining equipment. So long as these dust clouds are not so dense as to affect visibility, we have taken the view that the existence of dust will not create a significant impact.





A – Eastern end of runway, B – Western end of runway, C – Main hanger, D – Fuel installation, E – Club house, F – Second hanger, G – Machine shed

The Project Approval conditions (see **Section 1**) establish the assessment criteria to be used. They specify that the criteria only apply when the airfield is in use. For the long-term criteria this creates a minor problem in interpretation because the annual average standards for PM_{10} , TSP and dust deposition would normally be the averaged over a year (8,760 hours). We have used the following interpretation of the term "annual average" as the average concentration when the HVGC is active during the year. Thus, if for example, the club were to only operate at the weekends the annual average would be the average of all the weekends in the calendar year. This may be a lower concentration than would be the case if the actual annual average was calculated because the mine could apply management controls (e.g. suspend or relocate dust generating activities when the HVGC was operating). We believe this is a reasonable interpretation of the Project Approval.

The amenity management plan has been developed by using the dust emissions inventory for the modified mine plan (based on the EA mine plan) and using the ISCMOD dispersion model and 2002 meteorological data set (i.e. the same model and met data set as used in the EA) to predict a time-series of 24-hour PM_{10} concentrations for the selected receptors of interest (Sites A to G) (see **Figure 3.1**).

The placement of equipment was chosen to consider the dragline operating as close to the end of the airfield as it is ever likely to be. This is the scenario that will result in worst case impacts on the selected Sites. The equipment involved includes a drill, dozer, shovel, trucks and the dragline. The dragline has been assumed to be working at a rate that would allow it to handle 29,195,100 bcm of material in a year and this is estimated to result in the production of 927,613 kg of dust. This is similar, but slightly less, than the rate assumed in the EA. The main difference in the scenario assumed for developing the amenity management plan and the EA case, is in the location of the dragline. Similarly the truck and shovel operations and haulage of coal and overburden have been assumed to proceed at the same rate as envisaged in the EA except that the sources of dust associated with these activities have been relocated to give rise to maximum impacts at Sites A to G (see **Figure 3.1**).



To assess the potential impacts on the HVGC, the model has been re-run with the new equipment positions but with no attempt to reduce impacts, i.e. this run shows the effect of worst-case impacts with no attempt being made to reduce impacts.

To assess the effect of reducing impacts the emissions inventory has been examined to identify the largest sources and to rank them in terms of potential impact on the HVGC. This means examining both the magnitude of the emission and the locations of the emission sources relative to the dust sensitive areas associated with HVGC. **Table 1** shows the emission rates and Figure 3.1 shows where the emissions are assumed to come from and the locations of the dust sensitive locations.

Activity	Estimated annual emission of TSP -
	kg/year
Overburden operations	
Drilling	16153
Blasting	18557
Dragline	927613
Dozers	325111
Wind erosion – spoil piles	934166
Wind erosion – pit	325872
Loading overburden to trucks	341
Emplacing overburden	341
Coaling operations	
Drilling	2972
Blasting	3414
Dozers	309830
Loading coal	287101
Hauling coal	318750

Table 1 - Summary of major dust generating activities relevant to impacts at HVGC

The dragline is clearly the largest individual source of dust emission and is located closer to the HVGC facilities than any of the other sources. Emissions from wind erosion are also large but because these are distributed over a large area, their effect on PM_{10} concentrations at any particular site will be much less significant than emissions from a point source such as the dragline. Similarly, haulage of coal is a distributed source.



To assess the effect of suspending dragline operations the model has been re-run with the dragline emissions switched off.

The results are presented in the next section.

4 MODELLING RESULTS AND ANALYSIS OF OPTIONS

The results of the model simulations discussed in **Section 3** are presented as **Figure 4.1** to **Figure 4.14** for PM_{10} .

The effects of suspending dragline operations on 24-hour average PM_{10} concentrations at Site A can be seen by comparing **Figure 4.1** and **Figure 4.2**. With the dragline operating, 24-hour PM_{10} concentrations close to 1000 micrograms/cubic metre are predicted to occur on a number of occasions. With the dragline operations suspended, the maximum 24-hour average PM_{10} concentrations are reduced significantly to approximately 235 micrograms/cubic metre. Site A is at the northwest end of the airfield and is unlikely to be occupied on a long-term basis.

The effects of suspending dragline operations on air quality at Site B (at the south eastern end of the airfield) are shown in **Figure 4.3** and **Figure 4.4**. Even without suspending dragline operations, the predicted 24-hour PM_{10} concentrations are not predicted to exceed 150 micrograms/cubic metre^a, but are predicted to exceed 50 micrograms/cubic metre frequently. With the dragline operations suspended, the number of exceedances of 50 micrograms/cubic metre is reduced to 24 occasions.

Sites C, D, E, F and G show the predicted 24-hour PM_{10} concentrations at sites closer to the centre of the southern side of the airfield. These sites are arguably likely to be more sensitive to the effects of dust than the ends of the airfield as they are the areas where people would spend the most time. Examination of **Figure 4.5** to **Figure 4.14** show that the effects of suspending dragline operations provides significant reductions in the 24-hour PM_{10} concentrations, but at Site D for example there are still 96 days when 24-hour PM_{10} concentrations are predicted to exceed 50 micrograms/cubic metre due to emissions from the operation.

These results indicate that it is not likely to be feasible to guarantee compliance with the criteria set by the Project Approval under all conditions without effectively taking measures that effectively suspend all mining operations in the Glider Pit. There are unfortunately an infinite number of combinations of operational scenarios and weather conditions that would result in compliance and a similar number that would result in exceedances. Modelling cannot be used to identify all of these, but it can give some indication as to the effect of suspending particular operations. For example, suspending dragline operations leads to substantial reductions in 24-hour PM₁₀ concentrations, although not enough to take the 24-hour average concentrations below the 50 micrograms/cubic metre level. It is suggested that the approach to management takes advantage of the fact that there will be many days when mining in the Glider Pit will have almost no effect on air quality at HVGC. This will be the case when winds are from the southeast. This will be the case mostly in summer. Under these conditions mining can proceed with no controls other than those normally applicable.

a The current US EPA criterion for 24-hour average PM_{10} concentrations is 150 μ g/m³. The criterion for 24-hour PM_{10} was retained after review in 2006, however the criterion for annual average PM_{10} of 50 μ g/m³ was revoked "due to lack of evidence linking health problems to long-term exposure...." See www.epa.gov/particles/standards.html, but note that US EPA refer to $PM_{2.5}$ as fine particles and PM_{10} as coarse particles.





Figure 4.1: Predicted 24-hour average PM10 concentrations at Site A due to mining emissions (with no special controls)



Figure 4.2: Predicted 24-hour average PM10 concentrations at Site A due to mining emissions (with dragline operations suspended)





Figure 4.3: Predicted 24-hour average PM10 concentrations at Site B due to mining emissions (with no special controls)



Figure 4.4: Predicted 24-hour average PM10 concentrations at Site B due to mining emissions (with dragline operations suspended)





Figure 4.5: Predicted 24-hour average PM10 concentrations at Site C due to mining emissions (with no special controls)



Figure 4.6: Predicted 24-hour average PM10 concentrations at Site C due to mining emissions (with dragline operations suspended)





Figure 4.7: Predicted 24-hour average PM10 concentrations at Site D due to mining emissions (with no special controls)



Figure 4.8: Predicted 24-hour average PM10 concentrations at Site D due to mining emissions (with dragline operations suspended)





Figure 4.9: Predicted 24-hour average PM10 concentrations at Site E due to mining emissions (with no special controls)



Figure 4.10: Predicted 24-hour average PM10 concentrations at Site E due to mining emissions (with dragline operations suspended)





Figure 4.11: Predicted 24-hour average PM10 concentrations at Site F due to mining emissions (with no special controls)



Figure 4.12: Predicted 24-hour average PM10 concentrations at Site F due to mining emissions (with dragline operations suspended)





Figure 4.13: Predicted 24-hour average PM10 concentrations at Site G due to mining emissions (with no special controls)



Figure 4.14: Predicted 24-hour average PM10 concentrations at Site G due to mining emissions (with dragline operations suspended)

To deal with the days when this is not the case and when HVGC nominates they will be operating, an appropriate approach may be to adopt a reactive management strategy. This is described in the next section.



5 AMENITY MANAGEMENT PLAN BASED ON REACTIVE MANAGEMENT

The basis of the amenity management plan would be the continuous management of mining operations using the results of a TEOM PM_{10} monitor (or equivalent) to continuously monitor PM_{10} concentrations and to calculate the running 24-hour concentration of PM_{10} . This monitor should be located at one of the Sites B to F, or at a site nominated by the HVGC. Should the day be one nominated by HVGC as a "gliding day" and the TEOM indicate that the running 24-hour PM_{10} concentration has reached 50 micrograms/cubic metre (or an alternative "action level") then the environmental officer should assess the situation and determine if, based on an analysis of wind direction, activities in the Glider Pit are responsible. If they are, then the environmental officer should ensure a progressive reduction in activities leading to dust emissions as follows:

- check with HVGC whether culpable source/operation can be identified;
- suspend dragline operations and evaluate the effect on the PM₁₀ concentrations using the TEOM data;
- if the next 1-hour shows concentrations below 50 micrograms/cubic metre then no further action is required;
- if the 1-hour average PM₁₀ levels remain above 50 micrograms/cubic metre then the potential contributing source should be reassessed and likely contributing operations suspended;
- suspend other operations including out-of-pit dozer operations, coaling operations and drilling operations until PM₁₀ concentrations fall below 50 micrograms/cubic metre, and;
- recommence normal operations only after weather conditions change sufficiently to avoid reproducing the exceedance condition.

The basic concept is summarised in the flow chart below.





6 SUMMARY AND CONCLUSIONS

This report has reviewed the proposed mine plan for mining close to the HVGC. The plan has been used to generate an emissions inventory that has been merged with the emissions inventory presented in the EA. The inventory has then been used with the meteorological data used in the EA and the same model as used in the EA (ISCMOD) to predict the 24-hour concentrations of PM_{10} at seven sites on the HVGC facilities. Examination of the inventory shows that emissions from the dragline are the largest single source of emissions and because of the proximity of this source to the airfield and facilities, these are likely to have the largest impact on the PM₁₀ concentrations.

ISCMOD has been run to show the effect of unmodified operations on 24-hour PM_{10} concentrations at the seven selected receptors for two scenarios: (1) with the mine plan operated without any specific actions to reduce impacts at the HVGC, and (2) with the dragline operations suspended. These two model runs show that exceedances of 50 micrograms/cubic metre would be very common if no specific attempt was made to mitigate emissions. Suspending dragline operations significantly reduces PM_{10} but does not bring the predicted concentrations to below 50 micrograms/cubic metre, however the predicted concentrations are generally less than 90 micrograms/cubic metre which is modest given that the US EPA Standard for 24-hour PM_{10} was recently retained at 150 micrograms/cubic metre.



A reactive amenity management plan has been proposed that envisages monitoring PM_{10} concentrations on a continuous basis at the most sensitive site on the airfield (to be nominated by HVGC). A progressive suspension of dust generating mining activities would be commenced once the 24-hour PM_{10} reached 50 micrograms/cubic metre. Mining would not be recommenced until such time as measured PM_{10} was below 50 micrograms/cubic metre, or the weather had changed to prevent dust travelling from the mine to the HVGC facilities, or HVGC was no longer using the airfield.

Given that HVGC operate primarily on weekends and public holidays and the winds are generally favourable for mining on most days in summer, this amenity management plan should allow mining to proceed while still protecting amenity at the HVGC facilities.

7 **REFERENCES**

ERM (2006) – Hunter Valley Operations South Coal Project, Environmental Assessment Report.

US EPA (2004) - U.S. EPA. Air Quality Criteria for Particulate Matter (Final Report, Oct 2004). U.S. Environmental Protection Agency, Washington, DC, EPA 600/P-99/002aF-bF, 2004.



PLAN | HUNTER VALLEY GLIDING CLUB AMENITY MANAGEMENT

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APPENDIX D: SUPERSEDED MINE PROGRESSION PLANS (HISTORICAL REFERENCE ONLY)

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APPENDIX E: SECRETARY'S APPROVAL OF PLAN

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Department of Planning, Housing & Infrastructure



Andrew Speechly Manager E&C HV Operations 1011 Lemington Road Lemington, NSW, 2330

09/05/2024

Subject: HVO South - Amenity Management Plan

Dear Mr Speechly

I refer to your submission requesting review and approval of the Hunter Valley Gliding Club Amenity Management Plan (Rev 9.6). I also acknowledge your response to the Department's review comments and request for additional information.

The Department has carefully reviewed the document and is satisfied that it meets the requirements of the relevant conditions in consent MP06_0261.

Accordingly, as nominee of the Planning Secretary, I approve the the Hunter Valley Gliding Club Amenity Management Plan (Rev 9.6).

It should also be noted that this plan may need to be reviewed and revised if any changes to air quality and weather monitoring, resulting from the revision of the Air Quality and Greenhouse Gas Management Plan, that is currently underway.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you have any questions, please contact Keren Halliday, who can be contacted on 02 8289 6444

Yours sincerely

Stephen O'Donoghue Director Resource Assessments

As nominee of the Planning Secretary

4 Parramatta Square, 12 DarcyStreet, Parramatta NSW 2150 Locked Bag 5022, Parramatta NSW 2124

www.dphi.nsw.gov.au

Number: Owner: HVOOC-1797567310-4247 Environment and Community Superintendent Status:ApprovedVersion:9.6

Effective: Review: 21/06/2024 21/06/2027

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APPENDIX F: RESPONSE TO CONSULTATION COMMENTS

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Version 8	Version 9	Purpose of Change (Discussed at meeting on 14 th February 2020)	Review 1 (comments from February meeting incorporated in document and sent back to HVGC on 20 March 2020)	Review 2 (incorporates further comments from HVGC on 5 th April 2020 and HVO changes)	Review 3 (capturing comments from HVGC received 8 October 2021)
Section 1.1 – Background	Section 2 – Background	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made however no material changes have been made to this section.	Details on the airstrip in paragraph four have been retained as requested by the HVGC.	Re-wording to clarify which pits have been mined and those which have approval to be mined. Rewording to reflect requirement of the consent condition for AMP review. Reviewing the plan is only triggered for mining South Lemington Pit 2. Rewording to provide some flexibility on timing for AMP review. Can't guarantee 6 months prior to mining South Lemington Pit 2 but that will be our intention. The paragraph commencing 'At the time of updating this AMP' has been deleted Reference to HVGC on Figure 1 now included	HVGC request: South Lemington Pit 2 is in the document as a future possibility with no time is specified for its development, this will have a major impact on the HVGC. In the last paragraph of part 2 we ask that the wording is changed so that HVO will consult (rather than endeavour) with the HVGC at least 12 months prior to mining commencing. HVO response: Accepted and updated in the Plan.
Figure 1.1 – HVGC within the HVO South Project approval boundary	Figure 1 - HVGC within the Project Approval boundary of HVO South	The figure has been updated to include a new aerial image.	The figure has been added to show the location of pits and a footnote added.	Footnote added which correlates the different names for the Pits against the names used in the Development Consent.	
Section 1.2 - Scope	Section 3 - Scope	In this section of the document, Tables 1 and 2 have been included to summarise project approval and Concessions and	Condition 47 of Schedule 3 has been reinserted into the text.	First paragraph reworded to clarify the scope of the AMP as it relates to the Development Consent.	HVGC comment: Table 2 - Schedule 1 " Coal & Allied" should be changed to "HVO" to be

Section 1.3 – Approach to the development of the AMP	Mitigation Agreement (CMA) conditions. This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made however no material changes have been made to this section. Reference to active mining having ceased in the Glider Pit during the update of the AMP, with rehabilitation works commencing in the area.	The first paragraph in the last row of Table 1 has been reinserted. Changed wording in the last paragraph commencing 'It is also noted' to define Glider Pit as Glider Pits 1 and 2	In the last paragraph the factive mining' included	consistent with other changes. HVO response: Table 2 copies relevant excerpts from the Concessions and Mitigation Agreement (CMA). This has not been updated since the HV Operations JV commenced hence still states Coal and Allied. All Coal and Allied agreements were novated to the JV. words
Section 1.4 – Section 1 – Purpose of the Purpose AMP	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made however			

Section 1.5 – Report Structure	N/A	no material changes have been made to this section. This section has been removed from the document as Section 3 (Scope) identifies they key requirements of the document and the applicable sections.			
Section 2 – Risk Assessment	Section 4.1 – Assessment of Risks	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made to this section. Reference to active mining having ceased in the Glider Pit during the update of the AMP, with rehabilitation works commencing in the area. Reference to active mining ceasing in the Glider Pit, and rehabilitation works commencing in the area. Eliminating the dragline and associated plant would reduce the probability of exceeding noise and air quality limits.	Removed reference to dragline in first bullet point	Changed reference to mining equipment in first bullet point	
Section 2 – Risk Assessment	Section 4.1 – Safety	New sub title added	In the first paragraph, replaced the word Glider Pit with South Lemington	Changed wording in the first paragraph and referenced the "permitted mining area" to align with	
			Pits	the CMA	

Section 2 – Risk	Section 4.1.1 –	New sub title added	In the second bullet point	reworded to reflect current activities	
Assessment	Exceedance of		have removed the	but made specific to current status.	
	Noise and Air		reference to dragline and	potential for this to change in future.	
	Quality Limits		associated mining	, j	
			equipment	The paragraph commencing with	
				'The use of the HVGC' have been	
			In the last paragraph have	removed as per feedback received	
			removed reference from	on 5 th April from HVGC	
			dragline to mining		
			equipment	The paragraph commencing with 'At	¢ .
			o quipinoni.	the time of undating this plan has	
				been changed to reflect current	
				activities	
Section 3 -	Section 4.2 –	This section of the	Included reference to	Paragraph reworded to provide	HVGC Comment:
Changes to	Mine Planning	document has been moved	Glider Pits 1 and 2 not just	undate on current status of mining	Original plans for mining
mine nlan	Mille Flammig	to align with HVO's undated	Glider Pit in the first	and overburden dumning compared	in South Leminaton Pit 2
		document template some	naragraph	to mine progression plans in	involved bauling to the
		minor wording changes	paragraph	Appendix A	Clider Dit 2 area This
		have been made A new	Indated wording in Figure		Silder Fill Z area. This
		figure (Figure 2) has also	2 contion to reference	Baragraph rewarded to elerify that	
		hoop included that shows	Clider Bits 1 and 2	Paragraph reworded to clarify that	come to some
		the ourrent landform of the	Gilder Fils Tand 2	any changes to the approved mine	for access corose the
		Clider Dit		Consent enprevel/medification Any	lond HVO own botwoon
		Gilder Fil.		Consent approval/mounication. Any	
		Wording has been included			
		Changes to approved mine		require review of the AMP.	also proposed closing
		plan would require			Comierol Road and
		modification to the HVU			providing the club with
		South Project Approval and			an alternative 24/7
		would trigger a review of this			access using the private
		plan'.			road. With Wambo's
		Deletion of text relating to			plans to relocate the
		mine plans presented within			Golden Highway it
		the HVO South Coal Project			seems that hauling to
		Environmental Assessment.			Glider Pit 2 is even more
					unlikely than it was
					before. The alternative
					seems to be to haul to

					the east across the private road but that would have implications for 24/7 access to the club. Please comment. HVO response: The points you have raised are valid and would all require consideration if HVO were to proceed to mining that area. However at this stage HVO could only proceed mining Lemington Pit 2 in accordance with current approvals and as a result the Amenity Management Plan is
Section 4 – Potential impacts on the HVGC	Section 5 - Potential impacts on the HVGC	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made. Any redundant information or information no relevant to operations at HVO have also been removed			written to reflect that.
Section 4.1 – Obstacle Limitation Surface	Section 5.1 – Obstacle Limitation Surface	Reference to active mining ceasing in the Glider Pit, and rehabilitation works commencing in the area Figure 3 has also been updated to include aerial imagery as a base layer.	Included reference to Glider Pits 1 and 2 not Glider Pit in the first paragraph and fifth paragraph	Figure 3 altered to replicate Figure 4 in Annexure 3 in the CMA as requested by the HVGC.	

Section 4.2 -	Section 5.2 -	Reference to the simulation of the dragline operation has been removed given that mining within the Glider Pit has ceased. No material changes only		
Acoustics	Noise	minor wording changes.		
Section 4.2.1 - Noise approval limits	Section 5.2.1 – Noise Approval Limits	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.		
Section 4.2.2 – Modelling approach	Section 5.2.1 – Noise	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.		
Section 4.2.3 - Operational noise level predictions	Section 5.2 - Noise	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.		
Section 4.2.4 - Conclusion	Section 5.2 - Noise	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.		
Section 4.3.1 – Air Quality approval limits	5.3.1 – Air Quality Approval Limits	Table 3 has been updated with the current approved concentration limits and relevant conditions.	Reference to Table 3 corrected as per HVGC advice on 5 th April	

Section 4.3.2 –	N/A	This information has been			
Modellina		removed from the			
approach		document as mining within			
		the Glider Pit has ceased.			
Section 4.3.3 -	Section 5.3.2 –	Information relating to			
Operational air	Operational Air	operational air quality data			
quality level	Quality	has been removed and			
predictions	Predictions	summarised to outline the			
		written agreement that			
		permits HVO to exceed the			
		air quality limits consistent			
		with the management			
		provided in the AMP.			
Section 4.3.4 -	N/A	This has been removed			
Conclusion	-	from the document.			
Section 4.4 -	Section 5.4 -	Additional information	Second paragraph	Reworded to align with CMA.	
Infrastructure	Infrastructure	included relating to the	reworded as this is	Amenity mitigation is not contingent	
		potential closure of	specific to South	on mining in South Lemington Pit 2	
		Comierol Road.	Lemington Pit 2.	and has been removed from this	
				section. The commitment to provide	
				mitigation is outlined in the CMA	
				financial contribution for	
				innancial contribution for	
Section 4.4 -	Section 5.4.1 -	No material change only			
Infrastructure	Access Roads	minor wording changes			
Section 4.4 -	Section 5.4.2	No material change, only			
Infrastructure	Power and	minor wording changes			
	Telephone				
	Services				
Section 4.4 -	Section 5.4.3 –	No material change, only		Removed. Mitigation (protection of	
Infrastructure	Protection of	minor wording changes		structures) is captured in funding of	
	Structures			the Clubhouse per Section 6 of the	
				CMA. The clubhouse or mitigation	
				measures are not relevant to	
				Schedule 1 of the CMA.	

Section 4.4 -	Section 5.4.4 –	No material change, only			
Infrastructure	Drainage of Surface Runoff	minor wording changes			
Section 4.4 -	Section 5.4.5 -	No material change, only			
Infrastructure	Fencing Construction	minor wording changes			
Section 5.1 – Obstacle Limitation Surface	Section 6.1 – Obstacle Limit Surface	No material change, only minor wording changes. Reference to lighting and/or marking of obstacles, in accordance with CASA guidelines, to improve the safety of unannounced aircraft in the event that mining in the Glider Pit recommences.	The third bullet point has been changed from Glider Pit to South Lemington Pits.	Wording in the third bullet point changed to permitted mining areas to align with CMA wording.	
Section 5.2 – Alternative accommodation	Section 6.2 – Alternative Accommodation	'Consideration maybe given to provide funding for alternative nearby night accommodation'.		Reference to Section 13.12 of the CMA	HVGC Comment: For any operations in South Lemington Pit 2 HVO indicated you would use truck and shovel rather than dragline in this area to minimise impacts on the OLS, this is very important in the HVGC's view. There would be major noise and dust implications for the club however and HVO will need to manage the noise impacts on all users (particularly those who stay overnight) of

					the club will need to be managed per section 6.2, however nearby night accommodation will unlikely be acceptable. HVO Response: Noted. This reflects the CMA. Rather than para- phrasing in this section we can simply refer to the CMA.
Section 5.3 -	Section 6.3 -	Heading change			
Noise Soction 5-2-1	Noise	Minor wording changes	The first and second bullet	Marding in the first and second	
Management	Management	Removal of wording related	noints have been changed	bullet points changed to permitted	
measures	Management	to dragline operations due	from Glider Pit to South	mining areas to align with CMA	
modelaree	mododi oo	to mining ceasing in Glider	Leminaton Pits.	wording.	
		Pit.			
		Removal of reference to		In the third bullet point the words	
		Lemington CHPP as no		'environmental and safety controls'	
		longer in operation.		have been deleted and made	
				specific to noise impacts	
Section 5.3.2 –	Section 6.3.2 –	Minor wording changes.	The first bullet point has	Wording in the first bullet point	
Monitoring	Monitoring		been changed from Glider	changed to permitted mining areas	
measures	Measures	Wording changed in third	Pit to South Lemington	to align with CMA wording.	
		para to read 'Monitoring will	Pits.		
		be undertaken at the most		The words monthly and regularly	
		affected point at the Hunter		have been deleted as monitoring	
		Valley Gliding Club, in		would only occur when HVGC is in	
		accordance with the Noise		use.	
		Policy for Industry (NSW			
		EPA, 2017). If this is not		The word Glider Pit in the last	
		possible, alternative		sentence in the first bullet point has	
		suitably representative		been removed and replaced with	
		location will be used'.		the word 'area'	

Section 5.4.1 Management Measures	Section 6.4.1 – Management Measures	Redundant information has been removed relating to mining activities given that only rehabilitation activities are occurring in the Glider Pit.	The paragraph commencing 'The details of all air quality complaints' and the next paragraph and bullet points pertaining to air quality complaints have	First paragraph removed. The CMA obligates HVO to a one off funding of the Clubhouse inclusive of Mitigation Activities. HVO is not obligated to future mitigation contributions.	
		Wording added to read 'However, unfavourable air quality scenarios are based on HVO operating within the Glider Pit. Mining works in the Glider Pit had ceased at the time of updating this AMP, and rehabilitation works had commenced'.	been retained as requested by HVGC.	The words 'permitted mining area' have been included in the paragraph commencing with 'If the day is one nominated' and in the bullet point commencing 'Implement changes to operations'	
Section 5.4.2 Monitoring Measures	Section 6.4.2 – Monitoring Measures	Updated to references changes in HVAS and real time monitors.		Bullet point 2 and 3 changed to reflect current status of using a High Volume Air Sampler.	HVGC Comment: HVGC requests that real time dust monitoring is installed on our site and a path for immediate action before operations commence in South Lemington Pit 2 as dust is likely to have a greater impact on the HVGC. HVO Response: Prior to mining in Lemington Pit 2 an update to the Management Plan would occur to include installation of real-time dust monitor on the HVGC site.

Contine 6	Continu 7	Lindatad ta vafavanaa	In the first buildt point	In the first builds point the words	
				in the list bullet point, the words	
Notification	Notification	changes to notification	reference to the dragline	above the OLS have been retained.	
Procedures	Procedures	given that no mining	and the OLS has been	The words 'in the event that mining	
		activities are occurring in	removed and replaced	in the South Lemington Pits 1 and 2	
		the Glider Pit.	with mining equipment	commences' have been deleted.	
Section 6 –	Section 7.1.1 –	Provided updated			
Notification from	Notification from	complaints hotline number			
Club to HVO	HVGC to HVO				
Section 6 –	Section 7.1.2 –	Provided updated email			
Notification from	Notification from	address to HVGC.			
HVO to HVGC	HVO to HVGC				
Section 6.1 –	Section 7.2 -	Heading change			
		ricaaling onange			
Impingement	Imningement				
Dormionion	Bormission				
Procedure	Procedure				
Procedure					
Section 6.1 –	Section 7.2.1	Updated to reference HVO			
OLS	Purpose	(not Coal & Allied or			
Impingement		Yancoal Australia).			
Permission					
Procedure					
Section 6.1 –	Section 7.2.2	Updated to reference HVO			
OLS	Procedure	(not Coal & Allied or			
Impingement		Yancoal Australia).			
Permission					
Procedure					
Section 6.2 -	Section 7.3	Heading change			
Procedure to	Procedure to				
Advise that a	Advise that a				
Noise or Air	Noise or Air				
Quality Limit	Quality Limit has				
bas been	been Exceeded				
Evcoodod					
Exceeded	Section 7.2.1	Undeted to reference UVO			
Proceaure to	rurpose	(not Coal & Allied or			
Advise that a		Yancoal Australia).			
Noise or Air					

Quality Limit				
has been				
Exceeded				
Section 6.2 -	Section 7.3.2	Updated to reference HVO		
Procedure to	Procedure	(not Coal & Allied or		
Advise that a		Yancoal Australia). Change		
Noise or Air		in notification period of		
Quality Limit		exceedance from four to		
has been		seven days of receipt of		
Excooded		final report		
Exceeded Section 6.4	Section 7 1 1			
Gliding activities	Gliding activities	(not Coal & Allied or		
and occupancy	and occupancy	Yancoal Australia).		
advice	advice			
procedure	procedure			
	Purpose			
Section 6.4 –	Section 7.4.2 -	Updated to reference HVO	The words 'This should	
Gliding activities	Gliding activities	(not Coal & Allied or	occur with as much notice	
and occupancy	and occupancy	Yancoal Australia) and	as possible' to replaced	
advice	advice	updated HVO email	the wording 'at least two	
procedure	procedure	addressed.	davs' notice'.	
,	Procedure			
Section 6.5 –	Section 7.5 –	Minor wording changes.	Emailed addresses for	
Blast Notice	Blasting	Wording added to include	Secretary and Treasurer	
Procedure	Management	'HVO will also assign a	of the HVGC updated	
	Measures	suitably experienced	,	
		trained and qualified person		
		to give 10 minute 5 minute		
		and 1 minute warnings		
		aho i minute warnings		
		actionautical inequency of		
		120.7 WINZ and for this		
		period monitor the local		
		aeronautical frequency'.		

		Removal of Figures as this wording is captured in the document and therefore redundant.		
Section 7 – Audits and Reviews	Section 8 – AMP Review	Updated section to reference the requirements for the review of the plan in accordance with Condition 4A of Schedule 5 of the Project Approval, regulators and HVGC.	Added wording to reflect the specific need for HVO to review the AMP prior to mining South Lemington Pit 2.	
N/A	Section 9 – Accountabilities	Added a table outlining key roles and accountabilities relevant to the plan.	Added additional accountabilities	
N/A	Section 10 – Definitions	Added a table of definitions for abbreviations used throughout the document.		
N/A	Section 11 – Document Information	Moved reference list into this section and also included information about change management.		
Appendix	Appendix E	Appendix E to include letter from Director General's Approval		



Version 8	Version 9	Purpose of Change (Discussed at meeting on 14 th February 2020)	Review 1 (comments from February meeting incorporated in document and sent back to HVGC on 20 March 2020)	Review 2 (incorporates further comments from HVGC on 5 th April 2020 and HVO changes)	Review 3 (capturing comments from HVGC received 8 October 2021)
Section 1.1 – Background	Section 2 – Background	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made however no material changes have been made to this section.	Details on the airstrip in paragraph four have been retained as requested by the HVGC.	Re-wording to clarify which pits have been mined and those which have approval to be mined. Rewording to reflect requirement of the consent condition for AMP review. Reviewing the plan is only triggered for mining South Lemington Pit 2. Rewording to provide some flexibility on timing for AMP review. Can't guarantee 6 months prior to mining South Lemington Pit 2 but that will be our intention. The paragraph commencing 'At the time of updating this AMP' has been deleted Reference to HVGC on Figure 1 now included	HVGC request: South Lemington Pit 2 is in the document as a future possibility with no time is specified for its development, this will have a major impact on the HVGC. In the last paragraph of part 2 we ask that the wording is changed so that HVO will consult (rather than endeavour) with the HVGC at least 12 months prior to mining commencing. HVO response: Accepted and updated in the Plan.

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Owner:	[Owner (Office)]	Version:	[Document Version (Office)] Review:	[Planned Review Date]
			Uncontrolled when printed	

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Figure 1 – HVGC within the HVO South Project approval boundary	Figure 1 - HVGC within the Project Approval boundary of HVO South	The figure has been updated to include a new aerial image.	The figure has been added to show the location of pits and a footnote added.	Footnote added which correlates the different names for the Pits against the names used in the Development Consent.	
Section 1.2 - Scope	Section 3 - Scope	In this section of the document, Tables 1 and 2 have been included to summarise project approval and Concessions and Mitigation Agreement (CMA) conditions.	Condition 47 of Schedule 3 has been reinserted into the text. The first paragraph in the last row of Table 1 has been reinserted.	First paragraph reworded to clarify the scope of the AMF as it relates to the Development Consent.	HVGC comment: Table 2 - Schedule 1 " Coal & Allied" should be changed to "HVO" to be consistent with other changes. HVO response: Table 2 copies relevant excerpts from the Concessions and Mitigation Agreement (CMA). This has not been updated since the HV Operations JV commenced hence still states Coal and Allied. All Coal and Allied agreements were novated to the JV.
Section 1.3 – Approach to the development of the AMP	Section 4 – Development of the AMP	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made however no material changes have been made to this section. Reference to active mining having ceased in the Glider Pit during the update of the AMP,	Changed wording in the last paragraph commencing 'It is also noted' to define Glider Pit as Glider Pits 1 and 2	In the last paragraph the words 'active mining included	

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		with rehabilitation works commencing in the area.			
Section 1.4 – Purpose of the AMP	Section 1 – Purpose	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made however no material changes have been made to this section.			
Section 1.5 – Report Structure	N/A	This section has been removed from the document as Section 3 (Scope) identifies they key requirements of the document and the applicable sections.			
Section 2 – Risk Assessment	Section 4.1 – Assessment of Risks	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made to this section. Reference to active mining having ceased in the Glider Pit during the update of the AMP, with rehabilitation works commencing in the area.	Removed reference to dragline in first bullet point	Changed reference to mining equipment in firs bullet point	
		Reference to active mining ceasing in the Glider Pit, and rehabilitation works commencing in the area. Eliminating the dragline and associated plant would reduce the probability of			

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		exceeding noise and air quality limits.			
Section 2 – Risk Assessment	Section 4.1 – Safety	New sub title added	In the first paragraph, replaced the word Glider Pit with South Lemington Pits	Changed wording in the first paragraph and referenced the "permitted mining area" to align with the CMA	¢
Section 2 – Risk Assessment	Section 4.1.1 – Exceedance of Noise and Air Quality Limits	New sub title added	In the second bullet point have removed the reference to dragline and associated mining equipment	reworded to reflect current activities but made specific to current status, potential for this to change in future.	
			In the last paragraph have removed reference from dragline to mining equipment.	The paragraph commencing with 'The use of the HVGC' have been removed as per feedback received on 5 th April from HVGC	
				The paragraph commencing with 'At the time of updating this plan, has been changed to reflect current activities.	
Section 3 – Changes to mine plan	Section 4.2 – Mine Planning	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made. A new figure (Figure 2) has also been	Included reference to Glider Pits 1 and 2 not just Glider Pit in the first paragraph	Paragraph reworded to provide update on current status of mining and overburden dumping, compared to mine progression plans in Mine	HVGC Comment: Original plans for mining in South Lemington Pit 2 involved hauling to the Glider Pit 2 area. This assumed HVO could come to some agreement with United for

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Section 4 Section 5	Included that shows the current landform of the Glider Pit. Wording has been included 'Changes to approved mine plan would require modification to the HVO South Project Approval and would trigger a review of this plan'. Deletion of text relating to mine plans presented within the HVO South Coal Project Environmental Assessment.	Updated wording in Figure 2 caption to reference Glider Pits 1 and 2	Progression Plans for Permitted Mining Appendix A:. Paragraph reworded to clarify that any changes to the approved mine plan would first need Development Consent approval/modification. Any modification would subsequently require review of the AMP.	access across the land HVO own between the two HVO sites. It also proposed closing Comleroi Road and providing the club with an alternative 24/7 access using the private road. With Wambo's plans to relocate the Golden Highway it seems that hauling to Glider Pit 2 is even more unlikely than it was before. The alternative seems to be to haul to the east across the private road but that would have implications for 24/7 access to the club. Please comment. HVO response: The points you have raised are valid and would all require consideration if HVO were to proceed to mining that area. However at this stage HVO could only proceed mining Lemington Pit 2 in accordance with current approvals and as a result the Amenity Management Plan is written to reflect that.
Section 4 – Section 5 - Potential Potential impacts on the HVGC HVGC	This section of the document has been moved to align with HVO's updated document template, some minor wording changes have been made. Any redundant			

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Version:

[Document Status (Office)] Effective:

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Section 4.2.3 - Operational	Section 5.2 - Noise	Information on noise modelling and operational noise level			
Section 4.2.2 – Modelling approach	Section 5.2.1 – Noise	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.			
Section 4.2.1 - Noise approval limits	Section 5.2.1 – Noise Approval Limits	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.			
Section 4.2 - Acoustics	Section 5.2 - Noise	No material changes only minor wording changes.			
		base layer. Reference to the simulation of the dragline operation has been removed given that mining within the Glider Pit has ceased.			
Sunace	Sunace	Figure 3 has also been updated to include aerial imagery as a	paragraph	requested by the HVGC.	
Section 4.1 – Obstacle Limitation	Section 5.1 – Obstacle Limitation	Reference to active mining ceasing in the Glider Pit, and rehabilitation works commencing	Included reference to Glider Pits 1 and 2 not Glider Pit ir the first paragraph and fifth	r Figure 3 altered to replicate Figure 4 in Annexure 3 in the CMA as	
		information or information no relevant to operations at HVO have also been removed			

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predictions		predications have been removed. The noise criterion for HVGC has been provided.			
Section 4.2.4 - Conclusion	Section 5.2 - Noise	Information on noise modelling and operational noise level predications have been removed. The noise criterion for HVGC has been provided.			
Section 4.3.1 – Air Quality approval limits	5.3.1 – Air Quality Approval Limits	Table 3 - HVGC Air Quality Impact Assessment Criteria has been updated with the current approved concentration limits and relevant conditions.	Reference to Table 3 - HVGC Air Quality Impact Assessment Criteria corrected as per HVGC advice on 5 th April		
Section 4.3.2 – Modelling approach	N/A	This information has been removed from the document as mining within the Glider Pit has ceased.			
Section 4.3.3 - Operational air quality level predictions	Section 5.3.2 – Operational Air Quality Predictions	Information relating to operational air quality data has been removed and summarised to outline the written agreement that permits HVO to exceed the air quality limits consistent with the management provided in the AMP.			
Section 4.3.4 - Conclusion	N/A	This has been removed from the document.			

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Section 4.4 - Infrastructure	Section 5.4 - Infrastructure	Additional information included relating to the potential closure of Comleroi Road.	Second paragraph reworded as this is specific to South Lemington Pit 2.	Reworded to align with CMA. Amenity mitigation is not contingent on mining in South Lemington Pit 2 and has been removed from this section. The commitment to provide mitigation is outlined in the CMA and this obligation was met via financial contribution for construction of the new clubhouse.	
Section 4.4 - Infrastructure	Section 5.4.1 – Access Roads	No material change, only minor wording changes			
Section 4.4 - Infrastructure	Section 5.4.2 Power and Telephone Services	No material change, only minor wording changes			
Section 4.4 - Infrastructure	Section 5.4.3 – Protection of Structures	No material change, only minor wording changes		Removed. Mitigation (protection of structures) is captured in funding of the Clubhouse per Section 6 of the CMA. The clubhouse or mitigation measures are not relevant to Schedule 1 of the CMA.	
Section 4.4 - Infrastructure	Section 5.4.4 – Drainage of Surface Runoff	No material change, only minor wording changes			

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Section 4.4 - Infrastructure	Section 5.4.5 - Fencing Construction	No material change, only minor wording changes			
Section 5.1 – Obstacle Limitation Surface	Section 6.1 – Obstacle Limit Surface	No material change, only minor wording changes. Reference to lighting and/or marking of obstacles, in accordance with CASA guidelines, to improve the safety of unannounced aircraft in the event that mining in the Glider Pit recommences.	The third bullet point has been changed from Glider Pit to South Lemington Pits.	Wording in the third bullet point changed to permitted mining areas to align with CMA wording.	
Section 5.2 – Alternative accommodation	Section 6.2 – Alternative Accommodation	'Consideration maybe given to provide funding for alternative nearby night accommodation'.		Reference to Section 13.12 of the CMA	HVGC Comment: For any operations in South Lemington Pit 2 HVO indicated you would use truck and shovel rather than dragline in this area to minimise impacts on the OLS, this is very important in the HVGC's view. There would be major noise and dust implications for the club however and HVO will need to manage the noise impacts on all users (particularly those who stay overnight) of the club will need to be managed per section 6.2, however nearby night accommodation will unlikely be acceptable.

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					HVO Response: Noted. This reflects the CMA. Rather than para-phrasing in this section we can simply refer to the CMA.
Section 5.3 - Noise	Section 6.3 - Noise	Heading change			
Section 5.3.1 – Management measures	Section 6.3.1 – Management Measures	Minor wording changes. Removal of wording related to dragline operations due to mining ceasing in Glider Pit. Removal of reference to Lemington CHPP as no longer in operation.	The first and second bullet points have been changed from Glider Pit to South Lemington Pits.	Wording in the first and second bullet points changed to permitted mining areas to align with CMA wording. In the third bullet point the words 'environmental and safety controls' have been deleted and made specific to noise impacts	
Section 5.3.2 – Monitoring measures	Section 6.3.2 – Monitoring Measures	Minor wording changes. Wording changed in third para to read 'Monitoring will be undertaken at the most affected point at the Hunter Valley Gliding Club, in accordance with the Noise Policy for Industry (NSW EPA, 2017). If this is not possible,	The first bullet point has been changed from Glider Pit to South Lemington Pits.	Wording in the first bullet point changed to permitted mining areas to align with CMA wording. The words monthly and regularly have been deleted as monitoring would only occur when HVGC is in use.	

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		alternative suitably representative location will be used'.		The word Glider Pit in the last sentence in the first bullet point has been removed and replaced with the word 'area'	
Section 5.4.1 Management Measures	Section 6.4.1 – Management Measures	Redundant information has been removed relating to mining activities given that only rehabilitation activities are occurring in the Glider Pit. Wording added to read 'However, unfavourable air quality scenarios are based on HVO operating within the Glider Pit. Mining works in the Glider Pit had ceased at the time of updating this AMP, and rehabilitation works had commenced'.	The paragraph commencing 'The details of all air quality complaints' and the next paragraph and bullet points pertaining to air quality complaints have been retained as requested by HVGC.	First paragraph removed. The CMA obligates HVO to a one off funding of the Clubhouse inclusive of Mitigation Activities. HVO is not obligated to future mitigation contributions. The words 'permitted mining area' have been included in the paragraph commencing with 'If the day is one nominated' and in the bullet point commencing 'Implement changes to operations'	
Section 5.4.2 Monitoring Measures	Section 6.4.2 – Monitoring Measures	Updated to references changes in HVAS and real time monitors.		Bullet point 2 and 3 changed to reflect current status of using a High Volume Air Sampler.	HVGC Comment: HVGC requests that real time dust monitoring is installed on our site and a path for immediate action before operations commence in South Lemington

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					Pit 2 as dust is likely to have a greater impact on the HVGC.
					HVO Response:
					Prior to mining in Lemington Pit 2 an update to the Management Plan would occur to include installation of real-time dust monitor on the HVGC site.
Section 6 – Notification Procedures	Section 7 – Notification Procedures	Updated to reference changes to notification given that no mining activities are occurring in the Glider Pit.	In the first bullet point, reference to the dragline and the OLS has been removed and replaced with mining equipment	In the first bullet point, the words above the OLS have been retained. The words 'in the event that mining in the South Lemington Pits 1 and 2 commences' have been deleted.	
Section 6 – Notification from Club to HVO	Section 7.1.1 – Notification from HVGC to HVO	Provided updated complaints hotline number			
Section 6 – Notification from HVO to HVGC	Section 7.1.2 – Notification from HVO to HVGC	Provided updated email address to HVGC.			
Section 6.1 – OLS Impingement Permission Procedure	Section 7.2 – OLS Impingement Permission Procedure	Heading change			

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Section 6.1 – OLS Impingement Permission Procedure	Section 7.2.1 Purpose	Updated to reference HVO (not Coal & Allied or Yancoal Australia).		
Section 6.1 – OLS Impingement Permission Procedure	Section 7.2.2 Procedure	Updated to reference HVO (not Coal & Allied or Yancoal Australia).		
Section 6.2 - Procedure to Advise that a Noise or Air Quality Limit has been Exceeded	Section 7.3 Procedure to Advise that a Noise or Air Quality Limit has been Exceeded	Heading change		
Section 6.2 - Procedure to Advise that a Noise or Air Quality Limit has been Exceeded	Section 7.3.1 Purpose	Updated to reference HVO (not Coal & Allied or Yancoal Australia).		
Section 6.2 - Procedure to Advise that a Noise or Air Quality Limit	Section 7.3.2 Procedure	Updated to reference HVO (not Coal & Allied or Yancoal Australia). Change in notification period of exceedance from four to		

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Section 6.5 - Blast Notice Procedure	- Section 7.5 – Blasting Management Measures	Minor wording changes. Wording added to include 'HVO will also assign a suitably experienced, trained and qualified person to give 10 minute, 5 minute and 1 minute warnings ahead of firing on the local aeronautical frequency of 126.7 Mhz and for this period monitor the local aeronautical frequency'. Removal of Figures as this wording is captured in the document and therefore redundant.	Emailed addresses for Secretary and Treasurer of the HVGC updated		
Section 6.4 - Gliding activ and occupar advice procedure	- Section 7.4.2 - ities Gliding activities and occupancy advice procedure Procedure	Updated to reference HVO (not Coal & Allied or Yancoal Australia) and updated HVO email addressed.	The words 'This should occur with as much notice as possible' to replaced the wording 'at least two days' notice'.		
Section 6.4 - Gliding activ and occupar advice procedure	- Section 7.4.1 - ities Gliding activities and occupancy advice procedure Purpose	Updated to reference HVO (not Coal & Allied or Yancoal Australia).			
has been Exceeded		seven days of receipt of final report.			



Section 7 – Audits and Reviews	Section 8 – AMP Review	Updated section to reference the requirements for the review of the plan in accordance with Condition 4A of Schedule 5 of the Project Approval, regulators and HVGC.	Added wording to reflect the specific need for HVO to review the AMP prior to mining South Lemington Pit 2.	
N/A	Section 9 – Accountabilities	Added a table outlining key roles and accountabilities relevant to the plan.	Added additional accountabilities	
N/A	Section 10 – Definitions	Added a table of definitions for abbreviations used throughout the document.		
N/A	Section 11 – Document Information	Moved reference list into this section and also included information about change management.		
Appendix	Appendix E	Appendix E to include letter from Director General's Approval		

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