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Contact: Peter Jamieson (02) 4908 6818

NSW Department of Planning and Infrastructure
Mining and Industry Projects
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Clay Preshaw

Dear Mr Preshaw

Wallarrah 2 Coal Project (SSD4974) - Exhibition of Environmental Impact Statement

Reference is made to your letter to the Environment Protection Authority (EPA) dated 22 April 2013 regarding the public exhibition of the Environmental Impact Statement (EIS) in respect of the above proposal and inviting the EPA to provide a submission on the proposal and any recommended conditions of approval.

EPA understands that the proposal relates to establishing a new underground coal mine, near Wyong, extracting up to 5 million tonnes of run-of-mine coal per year.

EPA comments on the EIS can be found in Attachment 1. Draft suggested conditions, should consent be considered appropriate, are shown at Attachment 2. Attachment 3 contains likely conditions of any Environment Protection Licence, which will need to be applied for if consent is granted.

Department of Planning and Infrastructure will note that there is one issue where EPA needs more information and discussion with the proponent. This issue involves the establishment of suitable discharge limits from the water treatment plant. EPA recommends that consent not be considered until this matter is satisfactorily resolved.

Please note that this response does not cover subsidence, groundwater, biodiversity or Aboriginal cultural heritage issues, which are the responsibility of the Office of Environment and Heritage (OEH).

Yours sincerely

A handwritten signature in blue ink, which appears to read 'P. Jamieson', followed by the date '26-6-13'.

PETER JAMIESON
Head Regional Operations Unit – Hunter
Environment Protection Authority

Encl: **Attachment 1** – Wallarrah 2 Coal Project Public Exhibition – EPA Review and Comments
Attachment 2 – Recommended Conditions of Consent
Attachment 3 – Possible Environment Protection Licence Conditions

ATTACHMENT 1 WALLARAH 2 COAL PROJECT PUBLIC EXHIBITION – EPA REVIEW AND COMMENTS

General

There is one issue where EPA needs more information and discussion with the proponent. This issue involves the establishment of suitable discharge limits from the water treatment plant. EPA recommends that consent not be considered until this matter is satisfactorily resolved.

EPA also requests Department of Planning and Infrastructure to coordinate information from agencies with greater expertise than EPA in groundwater movement as to the likely fate of the hypersaline brine proposed to be disposed underground.

1. Water and Wastewater

Sewage Treatment System

EPA notes the EIS has committed to joining the Wyong Shire Council sewer system for bathhouse and general sewer discharges from both the Tooheys Road and Buttonderry sites. EPA supports this initiative.

EPA requested evidence that demonstrates that the procurement of the identified easements are possible in a logistical and legal sense. This does not appear to be covered in the EIS. The EPA recommends a condition of consent to restrict any capital works progressing until the entire easement acquisition process is finalised.

Discharges from the Premises

Runoff Dams

The EIS proposes runoff from the Tooheys Road stockpile area will be directed to the "Stockpile Dam". Runoff from the Tooheys Road raw coal stockpile, offices and workshop is proposed to be directed to the "Portal Dam". The EIS notes these dams are to be maintained 'empty if possible' and have been sized so as to comply with *"Managing Urban Stormwater: Soils and Construction – Mines and Quarries"* (DECC 2008). Captured water is proposed to be discharged to the "Mine Operations Dam" for further treatment. Flows that exceed the design capacity of the "Stockpile Dam" and "Portal Dam" will overflow to Wallarah Creek.

Runoff from the Buttonderry Site is proposed to be treated in the "Sedimentation Dam". The EIS notes this dam will be sized so as to comply with *"Managing Urban Stormwater: Soils and Construction – Mines and Quarries"* (DECC 2008). Captured water is proposed to be discharged to the "Entrance Dam" for reuse. Flows that exceed the design capacity of the "Sedimentation Dam/Entrance Dam" will overflow to Buttonderry Creek.

EPA notes from Appendix J "Surface Water Impact Assessment" that ANZECC ecosystem protection default trigger values have been detailed in Table 2.10, and in Table 2.11 a statistical assessment of historical water quality results from ambient monitoring sites has been undertaken. Table 6.2 identifies proposed discharge limits for an Environment Protection Licence. EPA has assessed the abovementioned data and given the characteristics of the water quality in the area and the nature of discharges from "Stockpile Dam", "Portal Dam" and "Entrance Dam" (essentially wet weather discharges) EPA accepts the proposed figures as appropriate limits and has detailed these at Attachment 3.

Mine Operations Dam (MOD)

The MOD is proposed to store saline water pumped from underground as well as waters received from the Portal and Stockpile Dams. This dam has a proposed storage capacity of 180ML. Waters from this dam are pumped to the Water Treatment Plant (WTP) where the wastewaters are treated through dissolved air flotation, membrane filtration, ion exchange and reverse osmosis at the net rate of 2.7ML/d. Treated water from the WTP is proposed to be reused at the surface or in underground operations, or released to Wallarah Creek. EPA notes the MOD has been designed to accommodate a 100 year ARI, 72 hour storm event. EPA further notes from Appendix J of the EIS "Surface Water Impact Assessment" that *"the water balance model results indicates that there will be no simulated uncontrolled discharges from the mine water management system to Wallarah Creek in any year of the Project."* Hence, unless there are extreme rainfall conditions, there should not be uncontrolled discharges of minewater for the life of the project. Figure 32 of the EIS shows a proposed overflow point from the MOD to Wallarah Creek and while good engineering practice is to include a stabilised spillway as a contingency for dam safety, discharge of highly saline untreated minewater direct to Wallarah Creek is unacceptable. Minewater has potential to cause environmental damage and the EPA has therefore formalised no discharge of untreated minewater as a condition of Environment Protection Licence, as detailed in Attachment 3.

In regard to water quality of discharges from the WTP to Wallarah Creek the EPA notes from the EIS *"the expected quality of treated water is consistent with the existing water quality of Wallarah Creek for all key parameters."* While this statement is correct for many pollutant parameters the EPA believes the water treatment plant will need to be modified to achieve better treatment for some of the parameters (eg dissolved oxygen).

The EPA advised in our letter of 31 October 2012 on the adequacy of the draft EIS that for the exhibited EIS:

- Any proposed discharges to Wallarah Creek should be assessed in accordance with the Natural Resource Management Ministerial Council's *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC 2000) regarding the potential impact on the receiving environment. The assessment of pollutants should include, but not be limited to, pH, conductivity, suspended solids and metals;
- Water quality that will be achieved post treatment needs to be detailed, making reference to ANZECC water quality criteria and existing water quality of Wallarah Creek. These commitments need to propose standards with regard to: total suspended solids, pH, electrical conductivity, metals and oil/grease. If deemed acceptable, it is EPA's intention to formalise these as environment protection licence discharge standards, should the project be approved.

Within Appendix J of the EIS, "Surface Water Impact Assessment", ANZECC ecosystem protection default trigger values have been detailed in Table 2.10. In Table 4.3 some numbers have been presented as "Walarah Creek water quality", however it is unclear what these individual figures represent (averages, 80 percentile? The note under the table appears to relate to treated water quality not wallarah creek water quality). Table 4.3 also identifies "Treated Water Quality" post WTP. A number of the water quality levels noted as being able to be achieved in Table 4.3 will be appropriate to protect aquatic ecosystems if achieved 100 per cent of the time, however given that Wallarah Creek is an intermittent watercourse and given that flows from the WTP may on occasions represent a significant proportion of total creek flow, to be more confident of acceptable impacts EPA requires a more detailed assessment of potential impacts than has been presented to date.

EPA notes a number of years of ambient water quality data has been collected. This historical ambient data should be assessed using the principles detailed in ANZECC to see if the treated water quality as proposed in Table 4.3 will be appropriate for all parameters. The proponent needs propose appropriate 100 percentile limits that will be committed to for the WTP. In justifying the limits particular attention will need to be given to dissolved oxygen, mercury, copper, zinc, ammonia, and electrical conductivity if limits similar to the levels noted in Table 4.3 are proposed.

This issue needs to be resolved and in Attachment 3 EPA has noted that for each parameter that we propose to apply limits for, the limit is still to be determined. **This issue needs to be resolved prior to consideration being given to consent.**

The levels of treatment of minewater that are proposed are commendable. Wallarah Creek is currently in good condition with a diverse macroinvertebrate community. Office of Environment and Heritage (OEH) investigations in Wallarah Creek indicate the Creek is in much better condition than the Marine Pollution Research (2102) report suggests. It is acknowledged that the monitoring sites are different, however over about the last 10 years OEH has found an average of approximately 27 taxa - range 23-31, which is in contrast to MPR who found an average of only 11 taxa (range 8-15). Given the good condition of Wallarah Creek EPA proposes a condition as a final check of water quality suitability. This condition requires the treated waters be confirmed to be free of adverse ecotoxic effects, prior to release to Wallarah Creek. This condition is shown at Attachment 2 and 3.

If the project is approved EPA will also require, via the Environment Protection Licence, monitoring of waters within Wallarah Creek upstream and downstream of the site to confirm no long term impacts from the discharge. Proposed Environment Protection Licence conditions requiring this monitoring, and an annual report on water quality, are shown at Attachment 3.

In regard to increased flows to Wallarah Creek as a result of WTP discharges the EPA notes *"under wet conditions, the flow volumes in Wallarah Creek are predicted to increase by approximately 2 %. Under average to dry conditions, flow volumes are expected to increase by approximately 3 %"*. It is also noted from the EIS that WTP discharges will have *"negligible impact on the frequency of flows greater than 10 ML/d..."* and *"it is unlikely that releases of treated water will cause increased erosion in Wallarah Creek"*. Despite these assurances EPA thinks it prudent to condition any consent, requiring a geomorphological assessment of Wallarah Creek each two years to map any existing erosion and identify any induced erosion associated with the Project, including actions that will be taken to remedy any induced erosion.

EPA notes in regard to minewater flows that the EIS states *"groundwater inflows are predicted to peak at 2.5 ML/d."* The proposed WTP has a capacity of 2.7 ML/d. Hence all available minewater should be able to be treated in the WTP and as noted above flows in Wallarah Creek should remain similar to historic flows as a result of discharges from the WTP. EPA is however mindful that these groundwater inflows are estimates and notes that at the nearby Mandalong mine, the current mining operation generates an **average** discharge of 1.59 ML/day (GHD 2013), however during periods of rainfall, discharges at Mandalong can be greater than 10 ML/day (Figure 5.4, GHD 2013). Therefore EPA thinks it prudent to include conditions requiring increased treatment capacity (and investigations of effluent reuse) if minewater flows exceed 2.7 ML/d, these conditions are shown at Attachment 2 and 3.

Brine Disposal

A salty brine will be produced as a by-product of the reverse osmosis plant. It is proposed that this brine will be further treated via a Brine Treatment Plant to reduce its volume to enable efficient disposal to "dedicated underground workings" until about Year 14 of the Project. Between Year 14 and Year 28 the EIS anticipates there will be sufficient capacity in the goaf produced by previously mined areas to allow disposal of brine direct to goaf.

In our letter of 31 October 2012 EPA noted that if the proponents intend injecting brine underground then the EIS needs to fully assess the location, volumes and the capacity of the aquifers to absorb/retain this brine and consider environmental impacts of this discharge.

EPA notes from the EIS *"the proposed underground storage is located at a depth of greater than 350 metres below the natural surface. The underground storage is overlain by low permeability geological units forming the Narrabeen Group..."* OEH looked carefully at MER (2013) to try and understand where the current groundwater aquifers might discharge. OEH could not identify from MER (2013) whether the current coal seam aquifer ultimately discharges into the ocean or whether it has the potential to be intersected by the streams/lakes of the Central Coast floodplain.

The concentrated brine proposed to be disposed of underground for the first 14 years of the project has a salinity of about 700,000 mg/L. The unconcentrated brine also has extremely high salt concentrations of about 300,000 mg/L. It is anticipated that 72,000 m³ of the former and 246 ML of the latter is proposed to be disposed underground.

Other agencies have greater expertise than EPA or OEH in determining if the proponent's assessment of the strata surrounding the proposed underground storage is adequate and assessing if the overlying and surrounding geology are able to retain this hypersaline mixture without recharge to receiving waters. If such hypersaline water was to discharge into surface waters, or groundwaters used for commercial purposes, extensive adverse impacts are likely. EPA is aware (and Appendix J part 3.2 details) the proponent is still in discussions with Wyong Shire Council about the potential for brine/minewater disposal to sea via Councils ocean outfall used for its northern sewage treatment plants. If other agencies consider there is a risk of the hyperaline waters recharging then investigations should be run to a conclusion as to whether brine disposal direct to outfall is possible in an engineering sense and if so what would be the impacts of this practice on the marine environment near the outfall.

2. Noise

EPA notes from the EIS *"noise modelling assumed that fixed and the mobile plant were operating simultaneously with train loading at the Tooheys Road Site, effectively providing a worst case modelling assumption. Modelling shows that appropriate Project Specific Noise Criteria will be met under all weather conditions at all private residences surrounding the Tooheys Road Site which is the location of the main noise emitting activities for the Project."*

For the Buttonderry Site the EIS states *"Modelling shows that the Project Specific Noise Criteria are not predicted to be exceeded at any private residence or more than 25 % of a contiguous block of land in single ownership due to activities from the Buttonderry Site."*

To ensure noise levels from the Project do not cause adverse impacts on nearby noise sensitive locations the EPA has proposed noise limits at locations around the main noise producing sites, including an additional location near to the Buttonderry Site, which was not proposed in the EIS. These limits are shown in Attachments 2 and 3.

EPA has proposed a requirement for the proponent to have real time noise monitors, which must be operated continuously to record noise impacts from the mine on noise sensitive residential receivers. EPA has also proposed conditions requiring quarterly attended noise monitoring to confirm noise limits are being met.

The EIS predicts that airblast overpressure and vibration from blasting activities can be satisfied at the closest private receiver with the employment of controlled Maximum Instantaneous Charge and detailed planning. To ensure these commitments are met EPA has proposed our industry airblast overpressure and vibration limits as conditions of Environment Protection Licence. Our proposed conditions also require monitoring of all blasts.

In regard to increased rail traffic associated with the project EPA notes that when operating at peak production the additional rail traffic generated will only marginally increase the $L_{Aeq, 24 \text{ hour}}$ levels (1-2 dBA) on the Main Noise Railway Line and maximum instantaneous noise will remain unchanged.

3. Air

EPA has reviewed the exhibited Air Quality Impact Assessment (AQIA) and considers that it has been adequately conducted in accordance with the requirements of the *Approved Methods for the Modelling and*

Assessment of Air Pollutants in New South Wales. The assessment has adopted generally accepted emission estimation techniques from Australia and the US EPA.

Predicted Impacts

The AQIA predicts that incremental project related air quality impacts will be below relevant EPA air criteria at identified off site receptors for incremental 24 hour average PM_{10} , one hour average NO_x and annual average PM_{10} , TSP and NO_x .

Particulates emissions

PM_{10}

Emissions estimates are presented for two scenarios:

1. A maximum daily production scenario based on the maximum conveyor capacity equating to 48 kilotonnes of coal per day (conservative)
2. An average production day based on an annual production scenario of 5 Mtpa of coal

No exceedances of the EPA's annual average PM_{10} criteria ($30 \mu\text{g}/\text{m}^3$) and 24 hour average PM_{10} criteria ($50 \mu\text{g}/\text{m}^3$) are predicted at any sensitive receptors. The highest predicted incremental ground level concentrations at a sensitive receptor are as follows:

- PM_{10} 24 hour average Scenario 1 - $27.2 \mu\text{g}/\text{m}^3$
- PM_{10} 24 hour average Scenario 2 - $22.1 \mu\text{g}/\text{m}^3$
- PM_{10} Annual average - $1.6 \mu\text{g}/\text{m}^3$

Assessment of cumulative PM_{10} 24 hour average impacts was conducted using "Monte Carlo simulation" and indicated a very low probability that the project would result in additional exceedances of the impact assessment criterion.

$PM_{2.5}$

Annual average and 24 hour average $PM_{2.5}$ assessments were undertaken and compared against the NEPM advisory standards of $8 \mu\text{g}/\text{m}^3$ and $25 \mu\text{g}/\text{m}^3$ respectively. No exceedances were predicted. The highest predicted 24 hour average incremental $PM_{2.5}$ concentration at a sensitive receptor is $5 \mu\text{g}/\text{m}^3$, and the annual average $0.46 \mu\text{g}/\text{m}^3$.

Construction Activities

An emission inventory of estimated TSP emissions for construction activities was compiled and construction emissions are estimated to be less than 35 % of operational emissions, for which predicted impacts are below EPA criteria at sensitive receptors. As such construction activities are unlikely to have adverse impacts provided operations are well managed and consistent with those proposed in the EIS.

EPA has proposed a number of conditions to ensure dust from the premises is adequately controlled.

Flare emissions

It is proposed methane extracted from the mine will initially be flared, with view to future electricity generation once gas flows are assessed.

Modelling of one hour and annual average NO_2 has been conducted using emission factors for two scenarios:

- Three flares with a gas flow rate of 2600 L/s
- A 10MW power station (five 2 MW gas engines)

No exceedances of EPA NO_2 assessment criteria were predicted, with the highest incremental one hour average ground level concentration at a sensitive receptor of $35 \mu\text{g}/\text{m}^3$ (criterion is $246 \mu\text{g}/\text{m}^3$) and annual average of $0.43 \mu\text{g}/\text{m}^3$ (Criterion is $62 \mu\text{g}/\text{m}^3$). Proposed licence conditions for the design and operation of the flares are included in Attachment 3. Additional conditions on any Environment Protection Licence will be

required prior to the development of electricity generation plant at the site, which are addressed in Attachments 2 and 3.

Odour

Assessment of the potential for odour impacts from the ventilation shaft was assessed with the highest predicted 99th percentile odour impact of 3 Odour Units at a sensitive receptor, indicating adverse odour impacts are unlikely given the low population density of the area surrounding the mine.

Proposed management measures

A broad overview of proposed management measures is provided in the AQIA, including:

- Speed limits of vehicles involved in construction activities
- Use of water sprays/ road watering during road construction
- Limiting excavation during periods of high winds
- Restricted land clearing
- Water sprays on coal stockpiles
- ¾ shielded conveyors
- Underground coal reclaim system from stockpiles

In addition, a broad overview of the proposed monitoring system is provided:

- It is proposed to review and expand the existing air quality monitoring network for the project site as part of the development of an Air Quality Management Plan for the project, including the replacement of High Volume Air Sampler (HVAS) monitors with Tapered Element Oscillating Microbalance (TEOM) monitors at locations representative of receivers who may experience short term elevated dust concentrations.
- A short term average performance indicator is to be developed to allow for proactive/reactive dust management if dust levels are expected to approach the EPA's 24 hour average impact assessment criterion.

All proposed management practices must be consistent with best management practice and be quantifiable, measurable, auditable and enforceable. Methods for determining compliance must be clearly identified. As such detailed information will be required to finalise environment protection licence conditions relating to emission monitoring, management and contingencies for the Wallarah 2 project. EPA recommends that the conditions of approval include the development of a comprehensive air quality management plan to be submitted with the application for an Environment Protection Licence, as shown in Attachment 2.

EPA advises that additional quantifiable and auditable environment protection licence conditions may be developed based on the information provided in the AQMP when an application for licence is made.

ATTACHMENT 2 – RECOMMENDED CONDITIONS OF CONSENT

Pollution of waters

1. Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation to the development, section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in connection with the carrying out of the development.
2. No capital works shall be commenced on the project until such time as all easements necessary for sewerage have been secured.
3. Prior to construction occurring on surface sites, soil and water management controls must be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities in accordance with the requirements outlined in *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).
4. There must be no uncontrolled discharges of minewater from the premises to surface waters.
5. The proponent must investigate the treated minewater to ensure it does not have an adverse ecotoxic effect in accordance with the details below:
 - i. Within the first year of operation, and prior to treated minewater being discharged to Wallarah Creek, the proponent must engage a person with suitable qualifications in ecotoxicology to take samples of the treated minewater and subject those waters a range of ecotoxicology tests.
 - ii. Prior to the second year of operation the proponent must submit a report to the Director-General and the EPA detailing the results of the ecotoxicology tests.
 - iii. Should the tests demonstrate an adverse ecotoxic effect despite the treatment being afforded, the report must detail actions that will be taken (including timelines) to rectify the situation.
6. Treated minewater that has an adverse ecotoxic effect must not be discharged to waters.
7. If minewater volumes approach the maximum capacity of the Water Treatment Plant the proponent must install additional water treatment plant capacity to allow treatment of any additional flows of minewater/runoff water above the design capacity of the Water Treatment Plant.
8. If minewater volumes exceed 2.3 ML/d the proponent must undertake investigations aimed at beneficially reusing any additional volume of minewater greater than 2.5 ML/d and submit a report on these investigations to the Director-General and EPA prior to minewater volumes exceeding 2.4 ML/d.
9. Prior to the project commencing and then every two years thereafter the proponent must engage a suitably qualified person to undertake a geomorphological assessment of Wallarah Creek to map any existing erosion and identify any additional erosion or induced erosion associated with the Project. Within 60 days of completing this assessment the proponent must supply a report to the Director-General that identifies the results of the investigations and includes actions that will be taken to remedy any induced erosion as a result of the Project.

Noise

10. Noise generated at the premises must not exceed the noise limits in the table below. The locations referred to in the table below are indicated by *Figure 36 Noise Assessment and Measurement Locations* provided in the Environmental Impact Statement for the Wallarah 2 Coal Project dated April 2013.

Locality	Location	NOISE LIMITS dB(A)			
		Day	Evening	Night	
		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
P1	SB & ST McKeogh (254)	35	35	35	52
P2	AR & SJ Munro (255)	35	35	35	52
P3	Lot 2 DP755245 JT & KE Hutchinson	40	40	35	52
P4	Lot 6 DP240205 TR Williams	35	35	35	54
P5	Lot 9 DP239704 Delcare Constructions Pty Ltd	35	35	35	54
P6	118 Bushells ridge Road (M2)	39	39	37	48
P7	Lot 99 DP755245 BJ & KR Drake	41	41	40	51
P8	Lot 22 DP631659 N&A Iordanidis	45	45	43	62
P9	Lot 6 DP260217 LM Ashcroft	42	42	42	58
P10	NJ & AM Hawkins (256)	37	37	37	58
M9	Lot 101 DP773780 MJ Baulch	38	38	38	48

11. For the purpose of the above condition:

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

12. Construction activity is permitted between the hours of 7:00am to 6:00pm Monday to Friday and Saturday 8:00am to 1:00pm, with no construction activity on Sundays and Public Holidays. Respite periods shall be implemented to address any noise complaint(s) associated with any construction noise including any loud construction works.
13. The noise limits set out in above apply under all meteorological conditions except for the following:
 - Wind speeds greater than 3 metres/second at 10 metres above ground level; or
 - Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
 - Stability category G temperature inversion conditions.
14. For the purposes of the above condition:
 - Data recorded by the meteorological station identified must be used to determine meteorological conditions ; and
 - Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.
15. To determine compliance:
 - a) with the $L_{eq(15 \text{ minute})}$ noise limits in the above condition, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
 - b) with the $L_{A1(1 \text{ minute})}$ noise limits in the above condition, the noise measurement equipment must be located within 1 metre of a dwelling façade.
 - c) with the noise limits in the above condition, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by these conditions.
16. A non-compliance of the above limit conditions will still occur where noise generated from the premises in excess of the appropriate limit is measured:
 - at a location other than an area prescribed by the above conditions; and/or
 - at a point other than the most affected point at a location.
17. For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Air Quality

18. The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.
19. Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.
20. The proponent must not cause or permit the emission of offensive odour beyond the boundary of the premises.
21. For all air emission sources at the site the proponent must prepare an air quality management plan that includes, but is not limited to:
 - *Key performance indicator(s);*
 - *Monitoring method(s);*
 - *Location, frequency and duration of monitoring;*
 - *Record keeping;*
 - *Response mechanisms; and*
 - *Compliance reporting.*
22. An air quality management plan must be submitted to the Environment Protection Authority (EPA) in conjunction with the application for an Environment Protection Licence under the *Protection of the Environment Operations Act 1997*.
23. The air quality management plan must detail a real time monitoring network for PM₁₀ , PM_{2.5} and weather that will record and be used to determine:
 - Ambient air quality in communities near to the facility, generally north-west and south-east of the site;
 - Any effect of the Tooheys Road facility on increasing ambient particulate levels;
 - Weather parameters as detailed in an Environment Protection Licence.
24. The air quality management plan must detail a predictive weather forecasting system that will be used as the basis to apply additional dust control mechanisms in the event of predicted "adverse" weather conditions.
25. The air quality management plan must detail adaptive management measures that will be implemented based on monitor(s) exceeding key PM₁₀ thresholds.
26. The air quality management plan must be implemented prior to the commencement of any dust generating activities at the site.
27. Prior to the conversion of the flare(s) to an electricity generation plant the proponent must make application to the EPA to vary the Environment Protection Licence for the premises to recognise relevant discharge points and add relevant limits and monitoring, where required.

ATTACHMENT 3 - POSSIBLE ENVIRONMENT PROTECTION LICENCE CONDITIONS

1. Location of monitoring/discharge points

The following points referred to in the table below are identified for the purposes of monitoring and/or setting of limits for the emission of pollutants to the air or to waters from the point.

Air

Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Ambient Air monitoring		PM2.5 and PM10 real time particulate monitoring station located at xxxxx
2	Ambient Air monitoring		PM2.5 and PM10 real time particulate monitoring station located at xxxxx
3	Ambient Air monitoring		PM2.5 and PM10 real time particulate monitoring station located at xxxxx
4	Ambient Air monitoring		PM2.5 and PM10 real time particulate monitoring station located at xxxxx
5		Discharge to air	Flare

Note: The number and location of flare discharge points and ambient air quality monitors will be determined during the application stage for Environment Protection Licence

Water

Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
6	Discharge quality monitoring	Discharge to waters	Discharge from the water treatment plant, at the Tooheys Road Site, to Wallarah Creek
7	Discharge quality monitoring	Discharge to waters	Discharge from the Stockpile Dam, at the Tooheys Road Site, to Wallarah Creek
8	Discharge quality monitoring	Discharge to waters	Discharge from the Portal Dam, at the Tooheys Road Site, to Wallarah Creek
9	Discharge quality monitoring	Discharge to waters	Discharge from the Entrance Dam, at the Buttonderry Site, to Buttonderry Creek
10	Ambient Water Monitoring		Waters within Wallarah Creek immediately upstream of site operations (site W12)
11	Ambient Water Monitoring		Waters within Wallarah Creek downstream of site operations, at the Motorway Link Road (site W6)

LIMIT CONDITIONS

2. Pollution of waters

Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation to the development, section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in connection with the carrying out of the development.

3. Concentration limits

For each monitoring/discharge point or utilisation area specified in the table\ s below (by a point number), the concentration of a pollutant must not exceed the concentration limits specified for that pollutant in the table.

POINT 6

Pollutant	Units of measure	100 percentile limit
Electrical conductivity	uS/cm	TBD
pH	pH units	TBD
Dissolved oxygen	% saturation	TBD
Suspended solids	mg/L	TBD
Oil and grease	Visible & mg/L	None visible and 5 mg/L
Ammonia	mg/L	TBD
Total Nitrogen	mg/L	TBD
Total Phosphorous	mg/L	TBD
Arsenic	mg/L	TBD
Cadmium	mg/L	TBD
Chromium	mg/L	TBD
Copper	mg/L	TBD
Lead	mg/L	TBD
Mercury	mg/L	TBD
Nickel	mg/L	TBD
Zinc	mg/L	TBD

POINTS 7, 8 & 9

Pollutant	Units of measure	100 percentile limit
Electrical conductivity	uS/cm	400
pH	pH units	6.0-7.5
Total Suspended Solids	mg/L	40
Oil and grease	Visible & mg/L	None visible and 5 mg/L

3. Waste

- 3.1. The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence.
- 3.2. The above condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an Environment Protection Licence.

4. Noise Limits

- 4.1. Noise generated at the premises must not exceed the noise limits in the table below. The locations referred to in the table below are indicated by *Figure 36 Noise Assessment and Measurement Locations* provided in the Environmental Impact Statement for the Wallarah 2 Coal Project dated April 2013.

		NOISE LIMITS dB(A)			
Locality	Location	Day	Evening	Night	
		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
P1	SB & ST McKeogh (254)	35	35	35	52
P2	AR & SJ Munro (255)	35	35	35	52
P3	Lot 2 DP755245 JT & KE Hutchinson	40	40	35	52
P4	Lot 6 DP240205 TR Williams	35	35	35	54
P5	Lot 9 DP239704 Delcare Constructions Pty Ltd	35	35	35	54
P6	118 Bushells ridge Road (M2)	39	39	37	48
P7	Lot 99 DP755245 BJ & KR Drake	41	41	40	51
P8	Lot 22 DP631659 N&A Iordanidis	45	45	43	62
P9	Lot 6 DP260217 LM Ashcroft	42	42	42	58
P10	NJ & AM Hawkins (256)	37	37	37	58
M9	Lot 101 DP773780 MJ Baulch	38	38	38	48

4.2. For the purpose of the above condition:

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

- 4.3. Construction activity is permitted between the hours of 7:00am to 6:00pm Monday to Friday and Saturday 8:00am to 1:00pm, with no construction activity on Sundays and Public Holidays. Respite periods shall be implemented to address any noise complaint(s) associated with any construction noise including any loud construction works.
- 4.4. The noise limits set out in above apply under all meteorological conditions except for the following:
- Wind speeds greater than 3 metres/second at 10 metres above ground level; or
 - Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
 - Stability category G temperature inversion conditions.
- 4.5. For the purposes of the above condition:
- Data recorded by the meteorological station identified must be used to determine meteorological conditions ; and
 - Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.
- 4.6. To determine compliance:
- with the $L_{eq}(15 \text{ minute})$ noise limits in the above condition, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
 - with the $L_{A1}(1 \text{ minute})$ noise limits in the above condition, the noise measurement equipment must be located within 1 metre of a dwelling façade.
 - with the noise limits in the above condition, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by these conditions.
- 4.7. A non-compliance of the above limit conditions will still occur where noise generated from the premises in excess of the appropriate limit is measured:
- at a location other than an area prescribed by the above conditions; and/or
 - at a point other than the most affected point at a location.
- 4.8. For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Blasting

- 4.9. The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- 4.10. The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- 4.11. Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- 4.12. Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- 4.13. Blasting at the premises may only take place between 9:00am-5:00pm Monday to Saturday. Blasting is not permitted on public holidays.
- 4.14. The airblast overpressure and ground vibration levels in the conditions above do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and land owner.

5. General Odour Conditions

- 5.1. The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Note: Section 129 of the *Protection of the Environment Operations Act 1997* provides that the licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

- 5.2. No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the *Protection of the Environment Operations Act 1997*.

OPERATING CONDITIONS

6. Activities must be carried out in a competent manner

- 6.1. Activities must be carried out in a competent manner. This includes:
 - a) The processing, handling, movement and storage of materials and substances used to carry out the activity; and/or
 - b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

7. Maintenance of plant and equipment

- 7.1. All plant and equipment installed at the premises or used in connection with the licensed activity:
- Must be maintained in a proper and efficient condition; and/or
 - Must be operated in a proper and efficient manner.

8. General Dust Conditions

- 8.1. The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.
- 8.2. Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

9. Air Pollution Controls - Construction Phase

- 9.1. The proposal must be constructed in accordance with the development consent and EIS and must include, but need not be limited to:
- Adequate location and number of fixed water sprays on all stockpiles;
 - Water sprays linked to the weather station such that sprays automatically activate upon wind reaching pre-determined speed threshold(s);
 - Water sprays automatically activated when "adverse" weather conditions are predicted by the weather forecasting system;
 - Wind shielding to three sides of conveyors;
 - Water application at conveyor transfer points;
 - Conveyor belt cleaning and spillage minimisation;
 - Stacking and reclaiming of coal without the use of dozers or other similar plant, except in emergencies;
 - Variable height stackers;
 - Boom tip water sprays;
 - Telescopic chute with water sprays.

10. Flare(s) conditions

- 10.1. The flare(s) must be designed, maintained and operated so as to prevent or minimise air pollution.
- 10.2. The flare(s) must be operated in such a way that a flame is present at all times while air impurities are required to be treated.
- 10.3. The flare(s) must not cause a visible particulate emission other than for a total period of no more than 5 minutes in any 2 hours.
- 10.4. Prior to the conversion of the flare(s) to an electricity generation plant the proponent must make application to the EPA to vary this Environment Protection Licence to recognise relevant discharge points and add relevant limits and monitoring, where required.

Note: No exceedances of EPA NO₂ assessment criteria were predicted in the EIS, with the highest incremental one hour average g/c at a sensitive receptor of 35 µg/m³ (criterion is 246 µg/m³) and annual average of 0.43 µg/m³ (62 µg/m³). If the gas engines are to be constructed as detailed in Table 4.3 of Appendix L of the EIS, the abovementioned application to vary this Environment Protection Licence must include the nitrogen dioxide plus nitric oxide, as NO₂ equivalent, in stack

concentrations in $\mu\text{g}/\text{m}^3$ used for this modelling. If the gas engines are to be built differently to that described in Appendix L the proponent must propose limits for in stack concentrations (in $\mu\text{g}/\text{m}^3$) of nitrogen dioxide plus nitric oxide, as NO_2 equivalent, backed by modeling or justification that these limits are appropriate.

11. Stormwater/sediment control - Construction Phase

- 11.1. Soil and water management controls must be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities in accordance with the requirements outlined in *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).

12. Stormwater Management

- 12.1. The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted into adequately sized sedimentation basins.
- 12.2. Sediment dams known as "Portal Dam", "Stockpile Dam" and "Sedimentation Dam" as shown in Figures 19 and 21 of the EIS must be kept pumped down and kept clean of accumulated sediments as much as possible to allow maximum volumes of stormwater runoff to be collected without discharge.

13. Minewater Management

- 13.1. There must be no uncontrolled discharges of minewater from the premises to surface waters.
- 13.2. The proponent must investigate the treated minewater to ensure it does not have an adverse ecotoxic effect in accordance with the details below:
 - a) Within the first year of operation, and prior to treated minewater being discharged to Wallarah Creek, the proponent must engage a person with suitable qualifications in ecotoxicology to take samples of the treated minewater and subject those waters a range of ecotoxicology tests.
 - b) Prior to the second year of operation the proponent must submit a report to the Director-General and the EPA detailing the results of the ecotoxicology tests.
 - c) Should the tests demonstrate an adverse ecotoxic effect despite the treatment being afforded, the report must detail actions that will be taken (including timelines) to rectify the situation.
- 13.3. Treated minewater that has an adverse ecotoxic effect must not be discharged to waters.
- 13.4. If minewater volumes approach the maximum capacity of the Water Treatment Plant the proponent must install additional water treatment plant capacity to allow treatment of any additional flows of minewater/runoff water above the design capacity of the Water Treatment Plant.
- 13.5. If minewater volumes exceed 2.3 ML/d the proponent must undertake investigations aimed at beneficially reusing any additional volume of minewater greater than 2.5 ML/d and submit a report on these investigations to the EPA and the Department of Planning & Infrastructure prior to minewater volumes exceeding 2.4 ML/d.

Note: The EIS predicted a maximum minewater flow of 2.5 ML/d, highlighted that a water treatment plant with a capacity of 2.7 ML/d would be built, and assessed the implications of this treated wastewater being discharged to Wallarah Creek and reused in mining operations.

14. Noise

- 14.1. Real time noise monitors must be operated continuously to record noise impacts from the mine on noise sensitive residential receivers. These monitors must filter sound frequencies so that the noise contribution from the premises can be estimated. These monitors must be alarmed at trigger noise levels in the evening and night-time periods (as defined above). In the event of the filtered noise level at the real time noise monitors exceeding trigger noise levels in the evening or night-time, actions must be taken that will reduce noise levels so that non-compliance with noise limits does not occur. Actions considered must include ceasing operations of certain activities. Actions taken in response to the alarm must be documented at the time of the decision in a manual log of noise control actions and must include date, time, likely main contributor(s) to noise levels and actions taken.
- 14.2. In the event of any apparent exceedance of the noise limits measured by the real time noise monitors the licensee must, within 7 days of the apparent exceedance, provide to the EPA a report on the apparent exceedance which must include: the trend-line from the real-time noise monitor showing the contribution from the premises leading up to the exceedance; a copy of the log of noise control actions showing actions that were implemented in response to an alarm being received prior to the apparent non-compliance; the reason(s) for the noise non-compliance occurring; and actions that will be put in place to prevent a similar non-compliance occurring into the future.

15. Emergency response

- 15.1. The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times. The emergency response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.

16. Processes and management

- 16.1. The licensee must ensure that any liquid and/or non liquid waste generated and/or stored at the premises is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.
- 16.2. The licensee must ensure that waste identified for recycling is stored separately from other waste.
- 16.3. All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.
- 16.4. Bunds must:
 - a) have walls and floors constructed of impervious materials;
 - b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
 - c) have floors graded to a collection sump; and
 - d) not have a drain valve incorporated in the bund structure,
 or be constructed and operated in a manner that achieves the same environmental outcome.

MONITORING CONDITIONS

17. Requirement to monitor concentration of pollutants discharged

For each monitoring/discharge point or utilisation area specified below (by a point number) the concentration of each pollutant specified in Column 1 must be monitored by sampling and obtaining results by analysis. Specified opposite in the other columns are the sampling method and units of measure to be used and the frequency with which samples are to be taken. The sampling methods are defined in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

POINTS 1-4

Pollutant	Units of measure	Frequency	Sampling Method
PM ₁₀	ug/m ³	Continuous	AM-22
PM _{2.5}	ug/m ³	Continuous	Method approved by EPA

POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Electrical conductivity	uS/cm	Daily during any discharge	Probe
pH	pH units	Daily during any discharge	Probe
Dissolved oxygen	% saturation	Daily during any discharge	Probe
Suspended solids	mg/L	Monthly, during any discharge	Grab sample
Oil and grease	Visible	Monthly, during any discharge	Visual Observation
Ammonia	mg/L	Monthly, during any discharge	Grab sample
Barium	mg/L	Monthly, during any discharge	Grab sample
Total Nitrogen	mg/L	Monthly, during any discharge	Grab sample
Total Phosphorous	mg/L	Monthly, during any discharge	Grab sample
Arsenic	mg/L	Monthly, during any discharge	Grab sample
Cadmium	mg/L	Monthly, during any discharge	Grab sample
Chromium	mg/L	Monthly, during any discharge	Grab sample
Copper	mg/L	Monthly, during any discharge	Grab sample
Lead	mg/L	Monthly, during any discharge	Grab sample
Mercury	mg/L	Monthly, during any discharge	Grab sample
Nickel	mg/L	Monthly, during any discharge	Grab sample
Zinc	mg/L	Monthly, during any discharge	Grab sample

Note: The frequency of monitoring required by this licence will be reviewed, upon request, after the first year's operation of the Water Treatment Plant

POINTS 7, 8 and 9

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended solids	mg/L	Monthly, during any discharge	Grab sample
Oil and Grease	Visible	Daily during any discharge	Visual observation
Electrical Conductivity	uS/cm	Daily during any discharge	Grab sample
pH	pH units	Daily during any discharge	Grab sample

POINTS 10 AND 11

Pollutant	Units of measure	Frequency	Sampling Method
Electrical Conductivity	uS/cm	Monthly	Probe
pH	pH units	Monthly	Probe
Dissolved oxygen	% saturation	Monthly	Probe
Turbidity	ntu	Monthly	Grab sample
Oil and grease	Visible	Monthly	Observation
Ammonia	mg/L	Monthly	Grab sample
Total Nitrogen	mg/L	Monthly	Grab sample
Total Phosphorous	mg/L	Monthly	Grab sample
Arsenic	mg/L	Monthly	Grab sample
Cadmium	mg/L	Monthly	Grab sample
Chromium	mg/L	Monthly	Grab sample
Copper	mg/L	Monthly	Grab sample
Lead	mg/L	Monthly	Grab sample
Mercury	mg/L	Monthly	Grab sample
Nickel	mg/L	Monthly	Grab sample
Zinc	mg/L	Monthly	Grab sample

18. Requirement to monitor weather

- 18.1. The licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm/hour	continuous	1 hour	AM-4
Relative humidity	Per cent	continuous	1 hour	AM-e
Sigma theta	degrees	continuous	10 minute	AM-2 and AM-4
Siting				AM-1
Temperature at 2 metres	kelvin	continuous	10 minute	AM-4
Temperature at 10 metres	kelvin	continuous	10 minute	AM-4
Total solar radiation	watts per square metre	continuous	10 minute	AM-4
Wind Direction at 10 metres	degrees	continuous	10 minute	AM-2 and AM-4
Wind Speed at 10 metres	metres per second	continuous	10 minute	AM-2 and AM-4

- 18.2. Monitoring of all parameters listed in Condition 1 must commence prior to earth moving activities being undertaken at the site.

19. Requirement to Monitor Noise and Blasting

- 19.1. To determine compliance with the Noise Limits shown in this licence, attended noise monitoring must be undertaken in accordance with all relevant conditions of this licence:
- a) at the nearest and/or most affected locations listed in the Noise Limits Table; and
 - b) occur quarterly beginning 1 January each year.
- 19.2. To determine compliance with the Blasting Limits shown in this licence, airblast overpressure and ground vibration levels experienced at the nearest noise sensitive location(s) must be measured and recorded for all blasts carried out on the premises.
- 19.3. Instrumentation used to measure and record the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.
- 19.4. EPA must be advised within seven days of any airblast overpressure or ground vibration limits being exceeded.

REPORTING CONDITIONS

20. Annual Air Quality Monitoring Report

- 20.1. The licensee must submit to the EPA, with the Annual Return, an annual air quality monitoring report. This report must detail:
- Annual average PM₁₀ and PM_{2.5} readings for each site since monitoring began
 - Any occasions when the 24 hour PM₁₀ and PM_{2.5} readings exceeded EPA impact assessment criteria at “community monitors”. Included with this information must be details of the wind speed and direction for the 24 hours corresponding to that reading, and the corresponding particulate level of any monitor broadly upwind of the monitor that recorded the exceedance.
 - The likely reason for any exceedance of EPA impact assessment criteria at “community monitors”
 - Actions taken and proposed to be taken to address any exceedance likely caused by operations at the premises.

21. Annual Water Quality Monitoring Report

- 21.1. The licensee must submit to the EPA, with the Annual Return, an annual water quality monitoring report. This report must detail the results of all monitoring required at points 10 and 11. The report must graphically present all results since monitoring began at each site for each parameter required to be monitored under this licence. Sites 10 and 11 must be shown on the same graph and the graph must also include a line representing relevant in-stream criteria. At least two graphs must be produced per parameter, one graph showing actual results and a second graph showing yearly averages since monitoring began.
- 21.2. The report must include commentary as to any trends observed and highlight any potentially deleterious effects occurring as a result of discharges from the premises.

22. Noise Monitoring Report

22.1. A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

- a) an assessment of compliance with noise limits presented in this licence; and
- b) an outline of any management actions taken within the monitoring period to address any exceedences of the limits contained in the Limit Conditions of this licence.

**Environment Protection Authority
June 2013**

