Queensland Government

Department of
Environment and Heritage Protection

Attn: Tyson Dodd
Downer Edi Works Pty Ltd
C/- PO Box 1057
MUDGEERABA QLD 4213

Email: tyson@jtenvironmental.com.au

Your reference: EPPR00420313

Our reference: Project 318691

Dear Mr Tyson Dodd,

Application details

I refer to your application to amend environmental authority EPPR00420313 to make minor amendments to conditions. This application was received by the administering authority on 27 June 2014.

Land description: 150 Boniface Street, Archerfield QLD 4178; Lot 17 on RP74928

Decision

The administering authority has decided to make an amendment to the environmental authority, other than the amendment you proposed.

The amendment made is set out below:

The contaminant release limit to air for carbon monoxide (CO) of 100 mg/Nm^3 (dry) at 15% O_2 stated in Table 1 of the environmental authority has been removed.

Should you have any further enquiries, please contact Rebecca Benson on telephone (07) 3330 6337.

Yours sincerely

Kelly Gleeson

Rebecca Benson
ES-RSD-SER-Brisbane South
LeveL 8 400 George Street
GPO Box 2454
BRISBANE CITY QLD 4000
Phone: (07) 3330 6337
Website **www.ehp.qld.gov.au**
ABN 46 640 294 485

Signature	Date
	15 August 2014

Manager Environmental Services, Brisbane South
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enclosed

Permit - environmental authority (reference EPPR00420313)

Permit[1]

Environmental Protection Act 1994

Environmental authority EPPR00420313

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Permit[1] number: EPPR00420313

Environmental authority takes effect on 15 August 2014

The anniversary date of this environmental authority is 18 May. An annual return and the payment of the annual fee which is currently $7,997.50 will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
Downer Edi Works Pty Ltd	150 Boniface Street Archerfield QLD 4178

Environmentally relevant activity and location details

Location(s)	Environmentally relevant activities
150 Boniface Street, Archerfield QLD 4178 Lot 17 on RP74928	- **ERA 6 - Asphalt manufacturing** – manufacturing 1000t or more of asphalt in a year. - **ERA 8(3) – Chemical storage** – storing 500m3 or more of chemicals of class C1 or C2 combustible liquids under AS1940 or dangerous goods class 3 subsection (1)(c). - **ERA 15 – Fuel Burning** - using fuel burning equipment that is capable of burning at least 500kg of fuel in an hour.

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

Additional information for applicants

Environmentally relevant activities

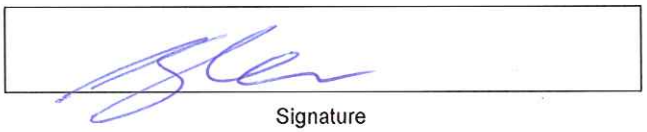
The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4 of the EP Act) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.



Signature

15 August 2014

Date

Kelly Gleeson
Manager Environmental Services, Brisbane South
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Rebecca Benson
ES-RSD-SER-Brisbane South
LeveL 8 400 George Street
GPO Box 2454
BRISBANE CITY QLD 4000
Phone: (07) 3330 6337
Email: rebecca.benson@ehp.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

The environmentally relevant activities conducted at the location as described above must be conducted in accordance with the following site specific conditions of approval.

Agency interest: General	
Condition number	**Condition**
G1	**Prevent and/or minimize likelihood of environmental harm** In carrying out an environmentally authority to which this approval relates, all reasonable and practicable measures must be taken to prevent and/or to minimise the likelihood of environmental harm being caused.
G2	**Maintenance of measures, plant and equipment** The operator of an environmental authority to which this approval relates must: (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and (b) maintain such measures, plant and equipment in a proper and efficient condition; and operate such measures, plant and equipment in a proper and efficient manner.

G3	**Site based management plan** From commencement of the environmental authority to which this approval relates, a site based management plan must be implemented. The site based management plan must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The site based management plan must also provide for the review and continual improvement in the overall environmental performance of all environmental authorities that are carried out. The site based management plan must address the following matters: (a) Environmental commitments – a commitment by senior management to achieve specified and relevant environmental goals. (b) Identification of environmental issues and potential impacts. (c) Control measures for routine operations to minimise likelihood of environmental harm. (d) Contingency plans and emergency procedures for non-routine situations. (e) Organisational structure and responsibility. (f) Effective communication. (g) Monitoring of contaminant releases. (h) Staff training. (i) Record keeping. (j) Periodic review of environmental performance and continual improvement.
G4	**Records** Record, compile and keep all monitoring results required by this approval and present this information to the administering authority when requested.
G5	All records required by this approval must be kept for five (5) years.
G6	**Exception reporting** The operator of an environmental authority to which this approval relates must notify the administering authority in writing of any monitoring result which indicates an increase of any licence limit within twenty eight (28) days of the completion of the analysis.
G7	**Waste Records** A record of all waste must be kept detailing the following information: (a) Date of pickup of waste; (b) Description of waste; (c) Quantity of waste; (d) Origin of the waste; and (e) Destination of the waste. Note: Trackable wastes as listed in schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000* are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste system established under the above regulation.
G8	**Notification** The operator of the environmental authority must telephone the Department of Environment and Heritage Protection Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

G9	**Information about spills** A written notice detailing the following information must be provided to the Department of Environment and Heritage Protection within 14 days of any advice provided in accordance with condition G8: (a) the name of the operator, including their approval/registration number; (b) the name and telephone number of a designated contact person; (c) the quantity and substance released; (d) vehicle and registration details; (e) person(s) involved (driver and any others); (f) the location and time of the release; (g) the suspected cause of the release; (h) a description of the effects of the release; (i) the results of any sampling performed in relation to the release; (j) actions taken to mitigate any environmental harm caused by the release; and (k) proposed actions to prevent a recurrence of the release.
G10	**Monitoring** All monitoring required by this approval must be conducted by a competent person(s).
G11	**Equipment Calibration** All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any conditions of this approval must be calibrated, and appropriately operated and maintained.
G12	**Spill kit** Appropriate spill kit(s), personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the environmental authority must be kept at the site.
G13	**Spill kit training** Anyone operating under this approval must be trained in the use of the spill kit.
G14	**Emergency response / contingency plan** The suitable operator must develop and implement an emergency/contingency plan to manage the environmental impacts of uncontrolled release of contaminants to the environment.

G15	**The emergency response / contingency plan address at least the following matters** (a) response procedures to be implemented to reduce the likelihood of any release of contaminants to the environment; (b) response procedures to prevent any further release or if such is not practicable, minimise the extent and duration of any release to the greatest practicable extent; (c) the practices and procedures to be employed to restore the environment, or if such is not practicable, mitigate any environmental impacts of the release; (d) a description of the resources to be used in response to the release; (e) the training of staff that will be called upon to respond to the release; (f) procedures to investigate the cause of any release, and where necessary, implement remedial actions to reduce the likelihood of recurrence of a similar event; (g) the provision and availability of documented procedures to staff attending any release to enable them to effectively respond; and (h) timely and accurate reporting of the circumstance and nature of release events to the administering authority.
G16	A copy of the emergency response/ contingency plan and any subsequent amendment of the emergency response/contingency plan must be kept at the approved place and be available for examination by Emergency Services Personal or an authorised person on request.
G17	**Overfill Protection** The fill point of all bulk storage tanks shall be fitted with an overfill protection device.
G18	**Alarm/isolation system** An integrated alarm and fuel closure system shall be provided and shall be activated in the following situations: (a) When any emergency stop device is activated; and or (b) When any leak or loss of integrity is detected;
G19	All filler silos, hot bitumen tanks, hot aggregate bins, and hot asphalt bins must be fitted with high level alarms which are capable of providing the operator in charge of the materials transfer with an audible and visible warning the maximum operative vessel capacity has been reached.

<table>
<tr><th colspan="2">Agency interest: Air</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>A1</td><td>
The release of contaminants to the atmosphere
The release of contaminants to the atmosphere from a point source must only occur from those release points identified in Table 1 – Contaminant release limits to air and must be directed vertically upwards without any impedance or hindrance.

Table 1 – Contaminant release limits to air

<table>
<tr><th>Release point number</th><th>Minimum release height (metres)</th><th>Minimum velocity (m/sec)</th><th>Contaminant release</th><th>Maximum release limit</th></tr>
<tr><td rowspan="9">RP1 – Baghouse Filter Stack</td><td rowspan="9">12</td><td rowspan="9">11</td><td>Total suspended particulates (TSP)</td><td>50 mg/Nm^3 (dry) at 15% O_2</td></tr>
<tr><td>Particulate matter <10 microns (PM10)</td><td>25 mg/Nm^3 (dry) at 15% O_2</td></tr>
<tr><td>Hydrogen sulphide (H_2S)</td><td>5 mg/Nm^3 (dry) at 15% O_2</td></tr>
<tr><td>Oxides of nitrogen (NO_X)</td><td>50 mg/Nm^3 (dry) at 15% O_2</td></tr>
<tr><td>Volatile organic compounds (VOC)</td><td>50 mg/Nm^3 (dry) expressed as total carbon at 15% O_2</td></tr>
<tr><td>Odour</td><td>1600 ou (wet)</td></tr>
<tr><td>Smoke</td><td>Ringelmann 1 or 20% opacity</td></tr>
<tr><td>Polycyclic Aromatic Hydrocarbons (BαP)</td><td>1 µg/ Nm^3 (dry) at 15% O_2</td></tr>
<tr><td>Total heavy metals*</td><td>100 µg/ Nm^3 (dry) at 15% O_2</td></tr>
</table>
*The above total heavy metals limit is for the total of lead, cadmium, mercury, chromium, arsenic, nickel and beryllium.
</td></tr>
<tr><td>A2</td><td>Contaminants must be released to the atmosphere from a release point at a height and a flow rate not less than the corresponding height and velocity stated for the release point in Table 1 – Contaminant release limits to air.</td></tr>
<tr><td>A3</td><td>Contaminants must not be released to the atmosphere from a release point at a mass emission rate/concentration, as measured at a monitoring point, in excess of that stated in Table 1 – Contaminants release limits to air</td></tr>
<tr><td>A4</td><td>All release points referred to in Table 1 – Contaminant release limits to air must be conspicuously marked with the corresponding release point number.</td></tr>
<tr><td>A5</td><td>Contaminants must be monitored not less frequently than specified in Table 2 – Required release point determinations.</td></tr>
</table>

A6	When requested by the administering authority, monitoring must be undertaken to investigate any complaint of environmental nuisance caused by a release to the atmosphere from a release point at the site, and the results thereof notified to the administering authority within 14 days following completion of monitoring
A7	Monitoring of any releases of the atmosphere required by a condition of this approval must be carried out in accordance with the following requirements: a) Monitoring provisions for the release points listed in Table 2 – Required release point determinations must comply with the Australian Standards AS 4323.1 – 1995 statutory source emissions Method 1: Selection of sampling positions (or more recent editions). b) Contaminants must be monitored not less frequently than specified in Table 2 – Required Release Pont Determinations. c) The following tests must be performed for each required determination specified in Table 2 – Required release point determinations; I. Gas velocity and volume flow rate; II. Temperature; III. Water vapour concentration (moisture content) d) Where practicable, samples must be taken when emissions are expected to be at maximum rates; e) During the sampling period the following additional information must be gathered; i. production rate at the time of sampling; ii. raw material used; iii. number of equipment and mixing vessels operating; iv. operating or mixing temperature; v. product made; and vi. reference to the actual test methods and accuracy of the methods.

A7 cont

Table 2 – Required release point determinations

Determination Required	Release Point Numbers	Frequency
Total suspended particulars (TSP)	A1 – Baghouse Filter Stack	All stacks must be monitored during commissioning (see Note 1) of the facility and annually thereafter.
Particulate matter less than 10 micrometre (PM10)		
Carbon monoxide (CO)		
Hydrogen Sulphate (H_2S)		
Oxides of nitrogen (NO_x)	A2 – Wet Scrubber Stack	
Volatile organic compounds (VOC)		
Odour		
Polycyclic aromatic hydrocarbons (PAH) as Benzo(a)pyrene equivalent (see note 2)		
Total metals (total of antimony, arsenic, cadmium, lead, mercury and vanadium and their respective compounds).		

Note 2: The above PAH limit is for total of the 16 priority PAH pollutants listed by the United States EPA, maely Naphthalene, Acenaphthylene, Acenaphthene, Flourene, Phenanthrene, Anthracene, Fluoranthene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(123cd) pyrene, Dibenz(ah)anthracene and Benzo(ghi)perylene, expressed as Benzo(a)pyrene equivalents using the potency equivalence factors specified by the world Health Organisation.

A8

Nuisance
The release of noxious or offensive odours or any other noxious of offensive airborne contaminants resulting from the activity must not cause a nuisance at any sensitive or commercial place.

A9

Dust Nuisance
The release of dust and/or particulate matter resulting from the environmental authority must not cause an environmental nuisance at any sensitive or commercial place.

A10	**Dust and particulate matter must not exceed the following levels when measured any nuisance sensitive or commercial place** a) Dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3580.10.1 of 2003 (or more recent editions); OR b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (um) (PM10) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the site, when monitored in accordance with: - Australian Standard AS 3580.9.6 of 2003 (or more recent editions) Ambient Air – Particulate matter – Determination of suspended particulate PM10 high-volume sampler with size-selective inlet –Gravimetric method; or - any alternative method of monitoring PM10 which may be permitted by the Air Quality Sampling Manual as published from time to time by the administering authority.
A11	**Drier Exhaust** All effluent gases, dust and vapours from the dryer must be effectively collected by an extraction system serving the plant and must be treated to effectively minimise the release of air pollutants and ensure compliance with this approval.
A12	For the purpose of avoiding any release of combustion gases and other air contaminants from the dryer which could cause an environmental nuisance, the following measurers must be taken as a minimum: (a) timely calibration and maintenance of the dryer burner; (b) the burner must be operating at maximum efficiency at all times to ensure complete combustion; (c) a device which is capable of detecting any failures of the air pollution control infrastructure has occurred.
A13	All collected material removed from air pollution control infrastructure must be recycled or removed and disposed of to a facility that can lawfully accept such wastes.
A14	**Dust Control – loading transfer and unloading of materials** The suitable operator must take all reasonable and practicable measures necessary to minimise the release of windblown dust and particulate matter emission to the atmosphere during the loading, transfer and unloading of materials. Reasonable and practicable measures may include but are not limited to; i. Use of water sprays at transfer points ii. Use of shielding and windbreaks iii. Transfer of material in a moist state iv. Use of dust collection and treatment systems
Agency interest: Land	
Condition number	**Condition**
L1	**Preventing contaminant released to land** Contaminants must not be released to land.

L2	Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.
L3	**Bunding** All liquid chemical and waste tank storage must be bunded such that the capacity of the bund is sufficient to contain at least 100% of the largest storage tank plus 10% of the second largest storage tank within the bund.
L4	All chemical and waste drum storage must be bunded so that the capacity of the bund is sufficient to contain at least 25% of the maximum design volume within the bund.
L5	All bunding must be constructed of materials which are impervious to the materials stored and transferred therein and must be roofed where practicable.
L6	A collection sump must be provided in the floor of the bunding to facilitate the removal of liquids. The bund floor must be graded so that the fall is towards the collection sump.
L7	All pipework to and from the bunded areas must be directed over the bund walls and not through them.
L8	Where vehicle access to a bunded area is required, the access must be by way of a rollover bund.
L9	All empty drums must be stored on a concrete hardstand area with their closure in place.
L10	Where a collection sump and drainage outlet are provided to facilitate removal of liquid collected within the bunded area, that outlet must be kept closed and secure at all times.
L11	All tanker loading-unloading areas must be bunded so that the capacity of the bund is sufficient to contain 100% of the largest compartment of any tanker using in the area.
L12	Unless otherwise stated all petroleum product storage must be designed, constructed and maintained in accordance with AS 1940 – Storage and Handling of Flammable and Combustible Liquids.
Agency interest: Noise	
Condition number	**Condition**
N 1	**Noise nuisance** Noise from the activity must not cause an environmental nuisance at any nuisance sensitive commercial place.

<table>
<tr><td>N2</td><td>All noise from activities must not exceed the levels specified in Table 3 – Noise limits at any nuisance sensitive place or commercial place.

Table 3 – Noise limits
<table>
<tr><td rowspan="2">Sound pressure level dB(A) measured as</td><td colspan="3">Monday to Saturday</td><td colspan="3">Sunday and public holiday</td></tr>
<tr><td>7am-6pm</td><td>6pm-10pm</td><td>10pm-7am</td><td>9am-6pm</td><td>6pm-10pm</td><td>10pm-9am</td></tr>
<tr><td colspan="7">Noise measured at a Noise sensitive place</td></tr>
<tr><td>$L_{A,max\ adj,T}$</td><td>BG+5 dB(A)</td><td>BG+5 dB(A)</td><td>BG+3 dB(A)</td><td>BG+3 dB(A)</td><td>Not audible</td><td>Not audible</td></tr>
<tr><td colspan="7">Noise measured at a Commercial place</td></tr>
<tr><td>$L_{A,\ max\ adj,T}$</td><td>BG+10 dB(A)</td><td>BG+10 dB(A)</td><td>BG+5 dB(A)</td><td>BG+5 dB(A)</td><td>Not audible</td><td>Not audible</td></tr>
</table></td></tr>
<tr><td>N 3</td><td>Noise monitoring
When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within 14 days of the administering authority. Monitoring must include:
-LA, max adj, T
- Where T is 10 minutes
- the level and frequency of occurrence of impulsive or tonal noise;
- atmospheric conditions including wind speed and direction;
-effects due to extraneous factors such as traffic noise; and
- location, date and time of recording.</td></tr>
<tr><td>N4</td><td>The method of measurement and reporting of noise levels must comply with the latest edition of Environmental Protection Agency – Noise Measurement Manual.</td></tr>
<tr><td colspan="2">Agency interest: Social</td></tr>
<tr><td>Condition number</td><td>Condition</td></tr>
<tr><td>S1</td><td>Complaint Response
The holder of the environmental authority must record the following details for all complaints received and provide this information to the administering authority on request:
a) time, date, name, and contact details of the complainant;
b) reason for the complaint;
c) any investigation undertaken;
d) conclusion formed; and
e) any action taken.</td></tr>
</table>

Agency interest: Water	
Condition number	**Condition**
W1	Contaminants must not be released from the site to any waters or the bed and banks of any waters.
W2	**Water Quality Monitoring** All water quality monitoring conducted in accordance with this environmental authority must comply with the following requirements: a) all determinations of the quality of contaminants released to water must be made in accordance with, but not limited to, methods prescribed in the Queensland Environmental Protection Agency Water Quality Sampling Manual, 3rd Edition, December 1999, or more recent editions or supplements to that document as such become available; and b) carried out on samples that are representative of the discharge.
W3	**Monitoring of groundwater quality** The suitable operator of an environmental authority to which this approval relates must implement an on-going Groundwater Monitoring Program (GMP), including the development of a suitable groundwater monitoring network, to monitor the quality of groundwater potentially impacted by any direct or indirect release of contaminants associated with any ongoing operations and / or any environmental authority and or notifiable activities.
W4	The groundwater monitoring network referred to in condition W3 must; a) be installed and maintained by a suitably qualified and experienced person; and b) be constructed in accordance with the Agriculture and Resource Management Council of Australia and New Zealand manual titled Minimum Construction Requirements for Water Bores in Australia, Edition 2, Revised September 2003, or more recent editions or supplements to that document as such become available.

<table>
<tr><td>W5</td><td>The suitable operator of an environmental authority to which this approval relates must conduct a Groundwater Management Plan which complies with the following requirements:
(a) All determinations of the quality of contaminants released to water must be made in accordance with, but are not limited to, methods prescribed in:
I. AS/NZS 5667:11:1998 – Water Quality – Sampling – Guidance on sampling of groundwater's, or more recent editions or supplements to that document as such become available; and/or
II. The "Queensland Environmental Protection Agency Water Quality Sampling Manual, 3rd Edition, December 1999", or more recent editions or supplements to that document as such become available.
(b) Groundwater samples taken from the bores must be analysed for, but are not limited to, the water quality parameters required in Table 4 – Groundwater Water Quality Parameters and Sampling Frequencies.
(c) Standing water levels and total well depths in metres must be measured and recorded on during each sampling event relative to the Australian Height Datum. Such measurements must be undertaken prior to any disturbance by sampling activities and must be reported as the depth in metres from the top edge of the highest point of the casing collar to the water surface within the bore.
(d) Groundwater samples taken from the bores must be representative of the aquifer(s).
(e) Groundwater quality must be monitored as often as necessary, but not less frequently than required in Table 4 – Groundwater Quality Parameters and Sampling Frequencies.
(f) Groundwater samples must be taken from each of the bores before commencement of the environmental authority and / or Notifiable Activities and during each sampling event.

Table 4 – Groundwater Water Quality Parameters and Sampling Frequencies
<table><tr><th>ERA</th><th>Water Quality Parameter</th><th>Monitoring Frequency</th></tr><tr><td rowspan="3">Physiochemical Analysis</td><td>pH (pH scale)</td><td rowspan="8">Every 12 months from the date of issuing this environmental authority to accompany the annual return</td></tr><tr><td>Electrical Conductivity (mS/cm)</td></tr><tr><td>Total Dissolved Oxygen (mg/L)</td></tr><tr><td rowspan="5">Laboratory Analysis</td><td>BTEX (ug/L)</td></tr><tr><td>Total Petroleum Hydrocarbons (ug/L)</td></tr><tr><td>Total Polyaromatic Hydrocarbons (ug/L)</td></tr><tr><td>Phenolic Compounds (ug/L)</td></tr><tr><td>Dissolved Metals (mg/L) – antimony, arsenic, cadmium, lead, mercury and vanadium and their respective compounds</td></tr></table></td></tr>
<tr><td>W6</td><td>Any records made as a result of groundwater quality monitoring made in accordance with condition W5 must be kept for not less than fifteen (15) years from the date the record was made.</td></tr>
</table>

W7	**Groundwater Monitoring Analysis Reporting** The suitable operator of an environmental authority to which this approval relates must ensure that the groundwater monitoring data gathered in accordance with this environmental authority is analysed and interpreted to assess the nature and extent of any environmental harm of the environmental authority(s) and / or notifiable activities. The assessment must also include; but not be limited to, the location, nature (confined, unconfined etc.) and quality of each aquifer, define groundwater contours, and indicate direction of flow. The data collation, analysis and assessment must be conducted by a suitably qualified and experienced person and must be submitted to the administering authority upon request.

Definitions

Key terms and/or phrases used in this document are defined in this section. Applicants should note that where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

For the purposes of this environmental authority the following definitions apply:

Act means the *Environmental Protection Act 1994*.

administering authority – means the Department of Environment and Heritage Protection or its successor.

annual return means the return required by the annual notice (under section 316 of the *Environmental Protection Act 1994*) for the section 73F environmental authority that applies to the environmental authority.

Approval/authority means 'notice of environmental authority decision' under the *Sustainable Planning Act 2009*.

approved plans means the place and documents listed in the approved plans section in the notice attached to this environmental authority.

authorised place means the place authorised under this environmental authority for the carrying out of the specified environmentally relevant activities.

BG means background sound pressure level measured in accordance with the latest edition of the *Environmental Protection Agency Noise Measurement Manual*; and where the measured or adopted background at noise sensitive location is not less than 30dBA; and where "T" is 10 mins.

clean water means water where the concentration of any contaminants present in it does not exceed the Australian and New Zealand Environment and Conservation Council (ANZECC) 2000 Guidelines for 95% species protection ecosystem values for such contaminants.

commercial place means a place used as an office or for business or commercial purposes.

dredge spoil means material taken from the bed or banks of waters by using dredging equipment or other equipment designed for use in extraction of earthen material.

dwelling means ant of the following structures or vehicles that is principally used as a residence –

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land;
- a water craft in a marina.

Intrusive noise means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration –

- Is clearly audible to, or can be felt by, an individual; and
- Annoys the individual.
- In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian standards 1055.2 – 1997 Acoustics – Description and Measurement of Environmental Noise Part 2 – Application to Specific Situations.

$L_{A\ 10,adj,\ 10\ mins}$ means the A-weighted sound pressure level, (adjusted for tonal characters and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

$L_{A\ 1,\ adj,\ 10\ mins}$ means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement level, (adjusted for tonal characters and impulsiveness of the sound) exceeded for 1% of any 10 minute measurement period using Fast response.

$L_{A,\ max\ adj,\ T}$ means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

land in the "land schedule" of this document means land excluding waters and the atmosphere.

Mg/L means milligrams per litre.

noxious means harmful or injurious to health or physical wellbeing.

NTU means nephelometric turbidity units.

nuisance sensitive place includes -

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- a kindergarten, school, university or other educational institution; or
- a medical centre or hospital; or
- a protected area under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
- a public thoroughfare park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonable used by persons at that place.

offensive means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

regulated waste means non-domestic waste mentioned in schedule 7 of the *Environmental Protection Regulation 1998* (whether or not it has been treated or immobilised), and includes –

- For an element – any chemical compound containing the element; and
- Anything that has contained the waste.

site means the approved place to which this environmental authority relates or the approved place to which this environmental authority relates.

watercourse means a river, creek or stream in which water flows permanently or intermittently –

In a natural channel, whether artificially improved or not; or

In an artificial channel that has changed the course of the watercourse

waters included river, stream, lake, lagoon pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof

you means the holder of this environmental authority or owner / occupier of the land which is the subject of this environmental authority.

END OF PERMIT