Permit

Environmental Protection Act 1994

Environmental authority EPPR00953513

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

Environmental authority number: EPPR00953513

Environmental authority takes effect on 15 March 2019

Environmental authority holder(s)

Name(s)	Registered address
Karreman Quarries Pty Ltd	616-632 West Mount Cotton Road SHELDON QLD 4157

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 100/SP234173
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 4/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 3/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 5/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 2/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 100/SP234173
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 4/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 3/RP186598

ABN 46 640 294 485

Environmental authority

Environmentally relevant activity/activities	Location(s)
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 5/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (c) more than 1,000,000t	Lot 2/RP186598
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	LOT 2/RP77219
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	LOT 88/RP28542
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	Lot 5/RP134429
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	Lot 30/SP258504
Prescribed ERA, ERA 16 - Extraction and Screening, 3: Screening, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	Lot 17/RP146684
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (a) 5,000t to 100,000t	Lot 2/SP188914
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	LOT 2/RP77219
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	LOT 88/RP28542
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	Lot 5/RP134429
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the	Lot 30/SP258504

ABN 46 640 294 485

Queensland Government

Environmentally relevant activity/activities	Location(s)
following quantity of material, (b) more than 100,000t but not more than 1,000,000t	
Prescribed ERA, ERA 16 - Extraction and Screening, 2: Extracting, other than by dredging, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t	Lot 17/RP146684
Prescribed ERA, ERA 53 - Composting and soil conditioner manufacturing, Manufacturing, from organic material or organic waste, 200t or more of compost or soil conditioners in a year	Lot 17/RP146684

Additional information for applicants

Environmentally relevant activities

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

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA 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 an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term ‘duty to notify’.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or
b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
c) otherwise-on the day the authority is issued.

ABN 46 640 294 485

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the Planning Act 2016 or an SDA Approval under the State Development and Public Works Organisation Act 1971), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

Clancy Mackaway
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date issued: 15 March 2019

Enquiries:
Waste and Contaminated Land Assessment
Department of Environment and Science
Phone: 1300 130 372
Email: palm@des.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)

Part 1 – Conditions for 616-632 West Mount Cotton Rd, SHELDON QLD 4157

Environmentally relevant activity(ies)	Locations
ERA 16 Extractive and screening activities Threshold 2(c) - extracting, other than by dredging, in a year, more than 1,000,000t of material. ERA 16 Extractive and screening activities Threshold 3(c) - screening, in a year, more than 1,000,000t of material.	Lot 100 Plan SP234173, Lot 2 Plan RP186598, Lot 3 Plan RP186598, Lot 4 Plan RP186598, Lot 5 Plan RP186598

The environmentally relevant activity(ies) conducted at the locations described above for this part must be conducted in accordance with the following site specific conditions.

Conditions

Schedule A: General	
Condition number	**Condition**
G1	**Prevent and /or minimise likelihood of environmental harm** In carrying out the ERA, reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused.
G2	**Notification** Notify the administering authority when the release of contaminants is not in accordance with the conditions of this document or any event where environmental harm may be threatened. Written advice of the following information must be provided within fourteen (14) days of the event or completion of any analysis: a) the location of the event; b) the time of the event; c) the time the registered operator became aware of the event; d) the suspected cause of the event; e) a description of the resulting effects of the event; f) the full analysis results where related to a release of contaminants; g) actions taken to mitigate any environmental harm and or environmental nuisance caused by the event; h) the outcome of mitigation actions; and i) proposed actions to prevent a recurrence of the event.
G3	**Maintenance of measures, plant and equipment** Ensure that: a) all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed; b) such measures, plant and equipment are maintained in a proper and efficient condition; and c) such measures, plant and equipment are operated in a proper manner.

G4	**Site based environmental management plan** From commencement of the ERA, a Site Based Management Plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact thereof and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of the ERA. The SBMP must address the following matters in relation to the ERA: a) the holder's commitment 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 causation of environmental harm; d) contingency plans and emergency procedures for non-routine situations which may cause environmental harm; e) organisational structure and responsibility; f) effective communication; g) monitoring of contaminant releases; h) conducting environmental impact assessments; i) staff training; j) record keeping; and k) periodic review of environmental performance and continual improvement.
G5	For the purposes of general condition G4, a SBMP includes the document entitled *"Environmental Management Plan, Karreman Quarry, West Mt Cotton Road, Sheldon"* prepared by ECOROC dated December 2011.
G6	**Third party compliance audit** The holder must at its own expense commission a competent person being independent from the holder to conduct audits in relation to compliance with general conditions G11 to G15 and land conditions L1 and L2 of this environmental authority before the commencement of each general stage of quarry development as defined by Figure 6 in the *Environmental Management Plan* prepared by ECOROC dated December 2011.
G7	The audits referred to in condition G6 must be conducted by a competent person nominated by the holder and approved by the administering authority, and the holder must arrange for that person to submit final versions of their audit reports to the administering authority within 14 days of completing the audits.
G8	The holder must not commence or proceed with any future general quarry stage until at least 14 days after an audit report for the preceding general quarry stage is submitted to the administering authority in accordance with condition G7.
G9	**Records** Record, compile and keep for a minimum of five years all monitoring results or other information required by or under this environmental authority and make those records available for inspection upon request by the administering authority.
G10	Where monitoring is required by or under this environmental authority, ensure that a competent person conducts all such monitoring.
G11	**Area of extraction and associated activities** Subject to condition G12, extraction of rock or other material and any associated activity shall not occur outside the designated quartzite and greywacke quarry excavation and quarry extension areas as defined by plan number 7645-K0-20-12-11 presented in the Schedule - Plans of this environmental authority, and for Stages A,

	B and C as defined by Figure 10 in the *Environmental Management Plan* prepared by ECOROC dated December 2011.
G12	Subject to prior written consent by the administering authority based on the following grounds, the designated quartzite quarry extension area referred to in condition G11 may be increased within the quartzite quarry conditional extension area as defined by the plan referred to in condition G11 provided that the increase to the quartzite quarry extension area is demonstrably needed for safety and environmental management infrastructure.
G13	Where consent is given as provided for by condition G14, this environmental authority expressly authorises the conduct of the ERA the subject of such consent.
G14	The areas within the site designated for extraction of rock or other material and associated activities as described in conditions G11 and G12 must be surveyed and clearly marked.
G15	A minimum 50 metre wide natural vegetation buffer shall be maintained between any extraction area on the site and the top of the banks of Tingalpa Creek and any levee bank shall not be within that buffer except as identified in plan 7645-KQ-20-12-11.
G16	**Financial assurance** The registered operator must provide a financial assurance in the amount and form required by the administering authority.
G17	If an approved guideline by the administering authority for the calculation of financial assurance applies then that guideline must be used to determine the financial assurance amount.
G18	Where progressive rehabilitation is completed, commensurate progressive reductions to the financial assurance amount will be applicable where rehabilitation has been completed in accordance with the land rehabilitation condition (L1) of this environmental authority, to the satisfaction of the administering authority.
Schedule B: Air	
Condition number	**Condition**
A1	**Dust nuisance** The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place.
A2	For the purposes of condition A1 and without limiting the applicability of other criteria relevant in particular circumstances, the ERA would cause environmental nuisance where dust or other particulate matter resulting from the ERA exceeds the following limits when measured at a relevant sensitive place: a) dust deposition of 120 milligrams per square metre per day or 4 grams per square metre per month, when monitored in accordance with Australian Standard 3580_10.1 Methods for sampling and analysis of ambient air Determination of particulates —Deposited matter — Gravimetric method ; or b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (urn) (PM_{10}) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:

	i. Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air — Determination of particulate matter — PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or ii. any alternative method of monitoring PM_{10} which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
A3	Dust or other particulate matter monitoring must be undertaken by the holder as directed by the administering authority to investigate any complaint about environmental nuisance being caused by dust or other particulate matter from the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, monitoring must be carried out by a competent person at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include: a) for a complaint alleging dust nuisance, dust deposition rate; and b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM_{10} over a 24hr averaging time.
A4	If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the **ERA,** the holder must: a) address the complaint including the use of appropriate dispute resolution if required; or b) immediately implement effective abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.
A5	**Dust Control - Aggregate Transport** Take reasonable and practicable measures necessary to prevent release of windblown dust from vehicles used for transporting aggregates extracted from the site. Reasonable and practicable measures may include but are not limited to: a) wetting down the load prior to transport; b) having the entire load covered with a tarpaulin or similar material for the duration of transport; and c) clearing of spillages from side rails, tail gates and draw bars of vehicles prior to and after delivery.
A6	**Dust control - trafficable areas** Trafficable areas (including West Mount Cotton Road from the site entrance to Mount Cotton Road) must be maintained using reasonable and practicable measures necessary to minimise the release of wind blown or traffic generated dust to the atmosphere. Reasonable and practicable measures may include but are not limited to: a) keeping surfaces clean; b) sealing with bitumen or other suitable material; c) using water sprays; d) installing an effective truck body and wheel wash facility when the crushing and screening plant is relocated to the western part of the quartzite quarry on Lot 1 on Plan SL808670; and e) using dust suppressants and wind breaks.

A7	**Conveyor belts and screening equipment** Take reasonable and practicable measures necessary to minimise the release of dust to the atmosphere from crushing and screening equipment and material conveyor systems. Reasonable and practicable measures may include but are not limited to: a) installation of windshields or barriers; b) water spays; and c) keeping material moist.
A8	**Rock drilling** Effective dust collectors on rock drilling equipment must be used.
A9	**Dust control — stockpiles** Stockpiles must be maintained using reasonable and practicable measures necessary to minimise the release of wind blown dust to the atmosphere. Reasonable and practicable measures may include but are not limited to: a) use of water sprays as required during winds likely to generate dust release; b) shielding and/or covering; and c) storage in enclosures.
Schedule C: Water	
Condition number	**Condition**
W1	**Sediment and erosion control** Stormwater runoff from the site must be managed in accordance with the following hierarchy: a) avoidance, e.g. prevent the amount of contaminated stormwater generated; b) reuse e.g. reuse contaminated stormwater; c) recycle e.g. treat contaminated stormwater for reuse; and d) disposal e.g. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this environmental authority.
W2	Effective erosion protection and sediment control measures must be implemented and maintained to minimise erosion and release of sediment to any waters outside the site.
W3	The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

W4

Release to waters

Stormwater runoff from disturbed areas on the site must not be released to waters outside the site except from the release points described in Table 1 and either:

a) with contaminants in the released stormwater runoff already compliant with the criteria prescribed in Table 2 at the release point; or

b) when rainfall or water flowing in Tingalpa Creek dilutes released stormwater runoff contaminants to levels compliant with the criteria prescribed in Table 2 when sampled at monitoring point K6 shown on plan 7645-KQ-20-12-1**1** the lowest accessible point on Tingalpa Creek within the authorised premises.

Table 1 – Release Points

Release point	Latitude	Longitude	Shown on Map
1	27° 36.513 S	153 11.760 E	7645-KQ-20-12-11
3	27° 36.362 S	153 11.618 E	7645-KQ-20-12-11
4	27° 36.420 S	153 11.497 E	7645-K0-20-12-11

Table 2 – Release Limits

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L		15 or background* + 10%, whichever is the greater
Turbidity	NTU		2 NTU above background* where background* is less than 20 NTU, otherwise background* +10%
Petroleum Products, scum or litter			Not visible or otherwise noticeable
Conductivity	µS/cm		< 730
Dissolved oxygen**	mg/L	6	

* Background — Sample from Tingalpa Creek upstream of the quarry pits during discharge from any release point.

** Minimum release limit to Tingalpa Creek.

W5

Contaminants must not be released from the site to any waters, roadside gutter or stormwater drain outside the site except in accordance with condition W4

W6

Monitoring must be undertaken and records kept of waters within 10 meters downstream of each discharge location in Table 1 — Release points for the parameters specified in Table 2 — Release limits. Monitoring must be conducted at least quarterly and, during releases from the site, daily.

All determinations of the quality of contaminants release must be:

a) made in accordance with methods prescribed in the latest edition of the administering authority's *Water Quality Sampling Manual;* and

	b) carried out on samples that are representative of the discharge; unless c) the stream is dry within 10 meters downstream of any given point, in which case a dry status must be entered in the monitoring records.
W7	For the purposes of compliance with condition W4, a volumetric water flow monitoring point must be established in Tingalpa Creek at K4 shown on plan 7645-KQ-20-12-11 and sufficiently upstream of the release points specified in Table 1 to ensure that samples taken at the monitoring point is not influenced by quarry activities.
W8	For the purposes of condition W4 and baseline determinations, monitoring of the contaminants set out in Table 2 must be established in Tingalpa Creek at the volumetric water flow monitoring point prescribed by condition W7 and in accordance with the procedures set out in condition W6 a), b) and c).
W9	The monitoring data of conditions W6, W7 and W8 must be recorded and kept by the registered operator and released to the administering authority on request or as required elsewhere in this environmental authority.
W10	For the purposes of condition W4, contaminant releases to waters must be controlled by a system which uses the volumetric water flow and contaminant data recorded in accordance with conditions W7 and W8 and also contaminant levels of waters to be released, to achieve contaminant dilutions sufficient to meet the requirements of condition W4.
W11	For the purposes of condition W4(b), the administering authority must where possible be notified in advance of such releases and always, after the release, with reasons for the release and daily analytical records of the parameters listed in Table 2 – Release Limits.
Schedule D: Noise	
Condition number	**Condition**
N1	Noise from the ERA must not cause an environmental nuisance at any sensitive place.
N2	Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint about noise nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done by a competent person in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include: a) $L_{A, max\ adj, T}$ b) relevant background sound level; c) the level and frequency of occurrence of impulsive or tonal noise; d) atmospheric conditions including wind speed and direction; and e) location, date and time of measurements
N3	For the purposes of condition N1, the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Table 3.

N4

If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the holder must:

a) address the complaint including the-use of appropriate dispute resolution if required; or
b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Table 3 – Noise limits

Sound pressure level dB(A) measured as	***Monday to Saturday***			***Sundays and public holidays***		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a 'Noise sensitive place'						
$L_{A,max,adj,T}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Not audible	Not audible
Noise measured at a 'Commercial place'						
$L_{A,max,adj,T}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the administering authority's *Noise Measurement Manual.*

NOTE: *Table 1 does not purport to set operating hours for the ERA.*

N5

Noise monitoring to determine compliance with condition N3 must be carried out at an appropriate noise monitoring point on Lot 2 on Plan SP110212.

N6

The holder must lodge with the administering authority, a transitional environmental program within 10 business days from the approval date of this environmental authority.

The environmental management program must identify all nuisance noise sources, measures to reduce such nuisance noise at sensitive places, and set out a timeframe for the implementation of such measures to ensure compliance with the limits specified in Table 3.

NOTE: *Section 331 of the Environmental Protection Act 1994 outlines the content requirements of a program*.

N7

Explosive blasting nuisance

Explosive blasting for the ERA must not cause a nuisance at any sensitive place.

N8

Explosive blasting on the site shall be carried out within the times specified in Table 4 unless otherwise approved from time to time by the administering authority due to meteorological conditions.

<table>
<tr><td>N9</td><td>Explosive Blast Monitoring
Every explosive blast for the ERA shall be designed by a competent person to achieve the criteria specified in Table 4.
Table 4 – Explosive blast design criteria and time limits
<table>
<tr><th rowspan="2"></th><th colspan="2">Vibration measured at a ‘sensitive place’</th></tr>
<tr><th>Monday to Friday 9am – 4pm
Saturday 9am – 1pm</th><th>Other times and
public holidays</th></tr>
<tr><td>Vibration (peak particle velocity)</td><td>5 mm/s for 4 out of 5 consecutive blasts</td><td>No blasting to occur</td></tr>
<tr><td>Air blast overpressure level (dB linear peak)</td><td>115 dB for 4 out of 5 consecutive blasts</td><td>No blasting to occur</td></tr>
</table>
NOTE: Table 4 does not purport to set limits applicable to any particular explosive blast, rather sets design criteria for every explosive blast.</td></tr>
<tr><td>N10</td><td>Monitoring must be undertaken as directed by the administering authority to investigate any complaint about nuisance being caused by explosive blasting for the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
For the purposes of this condition monitoring must be done by a competent person in accordance with Australian Standard 2187.2 — Explosives Storage, Transport and Use - Part 2 Use of Explosives, and include:
a) peak particle velocity (mm/s);
b) air blast overpressure level (dB linear peak);
c) location of the blasting within the site;
d) atmospheric conditions including temperature, relative humidity, wind speed and direction;
e) affects due to extraneous factors; and
f) location, date and time of measurements.</td></tr>
<tr><td>N11</td><td>All relevant information pertaining to the design of every explosive blast for the ERA in relation to the criteria specified Table 4 shall be kept in written and diagrammatic form.</td></tr>
<tr><td colspan="2">Schedule E: Waste</td></tr>
<tr><td>Condition number</td><td>Condition</td></tr>
<tr><td>WA1</td><td>All regulated waste removed from the site must be by a person who holds a current authority to do so under the Environmental Protection Act 1994.</td></tr>
<tr><td>WA2</td><td>Effective procedures must be implemented to ensure that wastes generated on the site are minimised, recycled, stored, handled and transferred in a proper and efficient manner, and so that disposal of such waste is at a facility lawfully able to do so.</td></tr>
<tr><td>W3A</td><td>The holder must not:
a) burn green waste on the site;
b) allow waste to be burned on the site; or
c) remove waste from the site for burning elsewhere.</td></tr>
</table>

Schedule F: Land	
Condition number	**Condition**
L1	**Land Rehabilitation** Disturbed areas of the site must be rehabilitated in a manner such that: a) the site is revegetated using a combination of local provenance species and natural reestablishment practices with the aim of regenerating the site with a similar composition of species (type, density and diversity) compared to a relevant reference site or to natural vegetation communities for the site; b) for the purposes of condition L2 seed is to be collected from local provenance species, and mature slow growing species (eg. *Xanthorrhoea fulva)* are to be preserved for re-establishment on the site; c) landform does not prevent, stop or endanger koala movement; d) a regular weed maintenance program is implemented in order to facilitate optimal success of native revegetation; e) stormwater, water or seepage released from the site does not contain contaminants including suspended solids, turbidity, total dissolved salts, pH, total iron, total aluminum, total manganese or total copper likely to cause environmental harm; f) the likelihood of environmental nuisance being caused by release of dust is minimised; g) the water quality of any residual water bodies meets relevant criteria for subsequent uses and does not have potential to cause environmental harm; h) the final landform is stable and not subject to slumping; and i) any potential acid forming materials in or on the site are encapsulated, submerged or treated so as to minimise environmental harm.
L2	**Vegetation clearing** Subject to condition G8, vegetation shall be cleared progressively sufficient for no more than twelve (12) months prospective quarry production requirements.
L3	**Preventing contaminant release to land** Contaminants must not be released thereby causing contaminated land
L4	Spillage of any chemicals, flammable or combustible liquids must be contained on the site and rectified whereby material or serious environmental harm is not caused.
L5	All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Schedule G: Community	
Condition number	**Condition**
C1	**Complaint response** All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.
C2	In conjunction with the administering authority, cooperate with and participate in any community environmental organisation established specifically in respect of the site.

Definitions

Words and phrases used throughout this environmental authority are defined below. Where a definition for a term used in this environmental authority is sought and the term is not defined herein, the definitions provided in the *Environmental Protection Act 1994,* Regulations made under that Act, Environmental Protection Policies or ordinary meaning should be used.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to the success of the rehabilitation outcome or remediation of areas which have been significantly disturbed. Acceptance criteria may include information regarding:

a) vegetation productivity, sustained growth and structure development;

b) fauna colonisation and habitat development;

c) ecosystem processes such as soil development and nutrient cycling, and the re-colonisation of specific fauna groups such as collembota, mites and termites which are involved in these processes;

d) microbiological studies including re-colonisation by mycorrhizal fungi, microbial biomass and respiration;

e) effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;

f) resilience of vegetation to disease, insect attack, drought and fire; and

g) vegetation water use and effects on ground water levels and catchment yields.

"administering authority" means the Environmental Protection Agency or its successor.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, and is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence interval is 20 years (this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"annual return" means the return required by the annual notice (under section 316 of the *Environment Protection Act 1994)* for the authority that applies to an approval.

"approval" means environmental authority.

"authorised person" means a person holding office as an authorised person under an appointment under the *Environment Protection Act 1994* by the chief executive.

"authorised place" means the place, premises or land authorised under this environmental authority for the carrying out of the specified environmentally relevant activities.

"background noise or sound level" means either:

a) $L_{A90, T}$ being the A-weighted sound pressure level exceeded for a relevant the time period measured in the absence of the noise under investigation, using fast response, or

b) $L_{Avg, T}$ being the arithmetic average of the minimum readings measured in the absence of the noise under investigation during a relevant time period, using fast response.

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

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

"disturbed areas" or words to that effect means -

a) contaminated land; or
b) land that has been disturbed and human Intervention including:
   i. mining or quarrying areas including processing plant, stockpiles and tailings areas;

ii. areas where soil has been compacted, removed, covered, exposed or stockpiled;
iii. areas where vegetation has been removed or destroyed to an extent where the land is
iv. susceptible to erosion;
v. areas where land use suitability or capability has been diminished;
vi. areas within waters where mining/quarry activities occur;
vii. areas submerged by tailings or hazardous contaminant storage dams in all cases;
viii. areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings,
ix. fixed machinery, hardstand areas, airstrips, helipads which is to be removed after
x. mining/quarrying has ceased; and

c) land that has been disturbed and human intervention NOT including:
   i. areas off mining lease or quarry site (eg. roads or tracks which provide access to the mining;
   ii. lease or quarry site);
   iii. areas previously significantly disturbed which have achieved rehabilitation outcomes;
   iv. by agreement with the administering authority, areas previously significantly disturbed which have not achieved rehabilitation objectives due to circumstances beyond the control of the environmental authority holder (such as climatic conditions);
   v. areas under permanent infrastructure e.g. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which are to be lawfully left on the site after cessation of mining/quarrying.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation:

a) a house, unit, motel, nursing home or other building or part of a building;
b) a caravan, mobile home or other vehicle or structure on land; and
c) a water craft in a marina

"extractive industry" means as defined by a relevant and applicable approval issued by Redland City Council.

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

a) is clearly audible to, or can be felt by, an individual; and
b) annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be had to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

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

"noise sensitive place" means -

a) a dwelling, mobile home or caravan park, residential marina or other residential premises;
b) a motel, hotel or hostel;
c) a kindergarten, school, university or other educational institution;
d) a medical centre or hospital;
e) a protected area under the *Nature Conservation Act 1992* or the *Marine Parks Act 2004*, or a World Heritage Area; and
f) a public thoroughfare, park or gardens;

and includes that part of the curtilage of a building or structure used for purposes usually or reasonably associated with the building or structure.

"noxious" means harmful or injurious to health or physical well being.

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining or quarrying activities are ongoing.

“sensitive place" includes:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises**;**
b) a motel, hotel or hostel;
c) a kindergarten, school, university or other educational institution;
d) a medical centre or hospital;
e) a protected area under the *Nature Conservation Act 1992* or the *Marine Parks Act 2004,* or a World Heritage Area
f) a public thoroughfare, park or gardens; and
g) a commercial place;

and includes that part of the curtilage of a building or structure used for purposes usually or reasonably associated with the building or structure.

"offensive" means causing offence or displeasure, is disagreeable to a sense, disgusting, nauseous or repulsive.

"reference site" (or analogue site) may reflect an original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be recorded as photographs, computer generated images and vegetation models etc.

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining or quarry state and in accordance with acceptance criteria or rehabilitation conditions, and where relevant includes remediation of contaminated land.

"representative" means a sample set which covers the variance in monitoring or other data either due to natural changes or to different phases of mining/quarrying activities.

"self sustaining" means an area of land which has been rehabilitated and has maintained the acceptance criteria or rehabilitation conditions outcomes without human intervention for a period nominated by the administering authority**.**

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

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased**.**

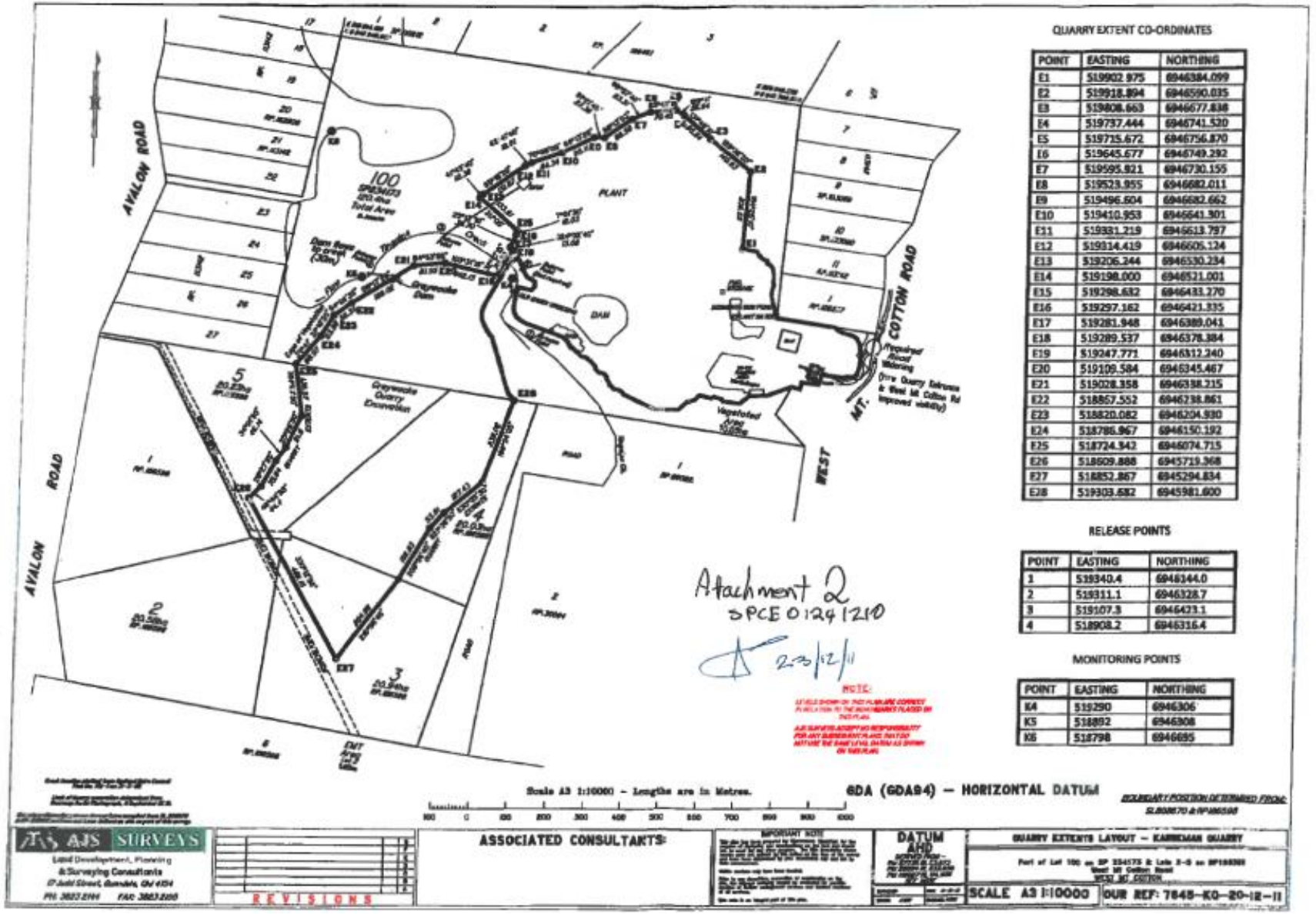
"subject site" is defined as Lot 100 on Plan SP234173 and Lots 2, 3, 4 and 5 on Plan RP186598**.**

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater runoff or groundwater.

"you" or **"holder"** means the holder of an environmental authority or person acting under an environmental authority.

Maps/Plans

Drawing 7645-KQ-20-12



POINT	EASTING	NORTHING
E1	519902.975	6946384.099
E2	519918.894	6946590.035
E3	519808.663	6946677.838
E4	519737.444	6946741.520
E5	519715.672	6946756.870
E6	519645.677	6946749.292
E7	519595.921	6946730.155
E8	519523.955	6946682.011
E9	519496.604	6946682.662
E10	519410.953	6946641.901
E11	519381.219	6946613.797
E12	519314.419	6946605.124
E13	519206.244	6946530.234
E14	519198.000	6946521.001
E15	519298.682	6946483.270
E16	519297.162	6946421.335
E17	519281.948	6946389.041
E18	519289.537	6946378.384
E19	519047.771	6946312.240
E20	519109.584	6946345.467
E21	519028.358	6946388.215
E22	518857.552	6946238.861
E23	518820.082	6946204.930
E24	518786.967	6946150.192
E25	518724.342	6946074.715
E26	518609.888	6945719.368
E27	518852.867	6945294.834
E28	519303.682	6945981.600

POINT	EASTING	NORTHING
1	519340.4	6946144.0
2	519311.1	6946328.7
3	519107.3	6946423.1
4	518908.2	6946316.4

POINT	EASTING	NORTHING
K4	519290	6946306
K5	518892	6946308
K6	518798	6946695

Part 2 - End of Cambrook Road, ESK QLD 4312

Environmentally relevant activity	Location
ERA 16 Extractive and screening activities Threshold 2(a) - extracting, other than by dredging, in a year, 5,000t to 100,000t of material	Brisbane River adjacent to Lot 2 on Plan SP188914 (previously Lot 48 on Plan RP14947)

The environmentally relevant activity(ies) conducted at the locations described above for this part must be conducted in accordance with the following site specific conditions.

Conditions

Schedule A: General	
Condition number	**Condition**
G1	**Prevent and /or minimise likelihood of environmental harm** In carrying out the ERA, reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused.
G2	**Maintenance of measures, plant and equipment** Ensure that: a) all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed; b) such measures, plant and equipment are maintained in a proper and efficient condition; and c) such measures, plant and equipment are operated in a proper manner.
G3	**Site Based Management Plan** From commencement of the ERA, a Site Based Management Plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact thereof and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of the ERA. The SBMP must address the following matters in relation to the ERA: a) the holder's commitment 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 causation of environmental harm; d) contingency plans and emergency procedures for non-routine situations which may cause environmental harm; e) organisational structure and responsibility; f) effective communication;

	g) monitoring of contaminant releases; h) conducting environmental impact assessments; i) staff training; j) record keeping; and k) periodic review of environmental performance and continual improvement.
G4	The SBMP must not be implemented or amended where such implementation or amendment would result in a contravention of any condition of this environmental authority.
G5	Details of any amendment of the SBMP must be submitted to the administering authority with the annual return which immediately follows the enactment of any such amendment.
G6	A copy of the SBMP must be kept at the authorised place.
G7	**Records** Record, compile and keep for a minimum of five years all monitoring results or other information required by or under this environmental authority and make those records available for inspection upon request by the administering authority.
G8	Where monitoring is required by or under this environmental authority, ensure that a competent person conducts all such monitoring.
G9	The total quantity of material that may be extracted under this permit in any 12 month period is 4,950m^3.
Schedule B: Air	
Condition number	**Condition**
A1	**Dust nuisance** The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place.
A2	For the purposes of condition A1 and without limiting the applicability of other criteria relevant in particular circumstances, the ERA would cause environmental nuisance where dust or other particulate matter resulting from the ERA exceeds the following limits when measured at a relevant sensitive place: a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air - Determination of particulates -Deposited matter - Gravimetric method ; or b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM_{10}) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with: i. Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air - Determination of particulate matter – PM_{10} high-volume sampler with size-selective inlet - Gravimetric method; or

	ii. any alternative method of monitoring PM_{10} which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
A3	Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint about dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days of receipt of the monitoring results. For the purposes of this condition, dust monitoring must be carried out by a competent person at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include: a) for a complaint alleging dust nuisance, dust deposition; and b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM_{10} over a 24hr averaging time.
A4	If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the holder must: a) address the complaint including the use of appropriate dispute resolution if required; or b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.
A5	**Dust control - trafficable areas** Trafficable areas (including entry and exit points) must be maintained using reasonable and practicable measures necessary to minimise the release of wind blown or traffic generated dust to the atmosphere. Reasonable and practicable measures may include but are not limited to: a) keeping surfaces clean; b) sealing with bitumen or other suitable material; c) using water sprays; d) installing an effective truck body and wheel wash facility; and e) using dust suppressants and wind breaks.
A6	**Dust control – stockpiles** Stockpiles must be maintained using reasonable and practicable measures necessary to minimise the release of wind blown dust to the atmosphere. Reasonable and practicable measures may include but are not limited to: a) use of water sprays as required during winds likely to generate dust release; b) shielding and/or covering; and c) storage in enclosures.

Schedule C: Land	
Condition number	**Condition**
L1	**Land rehabilitation** Disturbed areas of the site must be rehabilitated in a manner such that: a) the landform and any surrounding buffer land does not prevent, stop or endanger fauna movement; b) a regular weed maintenance program is implemented in order to facilitate optimal success of native revegetation; c) potential for erosion of the site is minimised; d) stormwater, water or seepage released from the site does not contain contaminants including suspended solids, turbidity, total dissolved salts, pH, total iron, total aluminium, total manganese or total copper likely to cause environmental harm; e) the likelihood of environmental nuisance being caused by release of dust is minimised; f) the final landform is stable and not subject to slumping; and g) any potential acid forming materials in or on the site are encapsulated, submerged or treated so as to minimise environmental harm.
L2	**Land management** Contaminants must not be released thereby causing contaminated land.
L3	Spillage of any chemicals, flammable or combustible liquids must be contained on the site and rectified whereby material or serious environmental harm is not caused.
L4	All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.
Schedule D: Noise	
Condition number	**Condition**
N1	**Noise nuisance** Noise from the ERA must not cause an environmental nuisance at any sensitive place.
N2	Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint about noise nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done by a competent person in accordance with the latest edition of the Environmental Protection Agency Noise Measurement Manual and include: a) $L_{A, max\ adj, T}$; b) relevant background sound level;

	c) the level and frequency of occurrence of impulsive or tonal noise; d) atmospheric conditions including wind speed and direction; and e) location, date and time of measurements.
N3	For the purposes of condition N1, the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Table 1 - Noise limits.

Table 1 Noise limits

Sound pressure level dB(A)	***Monday to Saturday***			***Sundays and public holidays***		
	7am - 6pm	***6pm – 10pm***	***10pm - 7am***	***9am - 6pm***	***6pm – 10pm***	***10pm - 9am***
Noise measured at a 'Noise sensitive place'						
$L_{A,\ max\ adj,\ T}$	Background + 5 dB(A)	Background + 5 dB(A)	Background +3 dB(A)	Background +3 dB(A)	No audible noise	No audible noise
Noise measured at a 'Commercial place'						
$L_{A,\ max\ adj,\ T}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the administering agencies' Noise Measurement Manual.

NOTE: *Table 1 does not purport to set operating hours for the ERA*.

N4	If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the holder must: a) address the complaint including the use of appropriate dispute resolution if required; or b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.
Schedule E: Waste	
Condition number	**Condition**
WA1	All regulated waste removed from the site must be by a person who holds a current authority to do so under the *Environmental Protection Act 1994*.
WA2	Effective procedures must be implemented to ensure that wastes generated on the site are minimised, recycled, stored, handled and transferred in a proper and efficient manner, and so that disposal of such waste is at a facility lawfully able to do so.

WA3	The holder must not: a) burn waste on the site; b) allow waste to be burned on the site; or c) remove waste from the site for burning elsewhere.
Schedule F: Water	
Condition number	**Condition**
W1	Effective erosion protection and sediment control measures must be implemented and maintained to minimise erosion and release of sediment to any waters outside the site.
W2	Contaminants must not be released from the site to any waters, or the bed and banks of any waters.

Definitions

Words and phrases used throughout this environmental authority are defined below. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority the definitions provided in the relevant legislation shall be used.

"administering authority" means the Department of Environment and Science or its successor.

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

"approval" means this environmental authority and the conditions contained within.

"authorised person" means a person holding office as an authorised person under an appointment under the *Environmental Protection Act 1994* by the chief executive.

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

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

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

"dwelling" means any of the following structures or vehicles that is principally used as a residence —

a) a house, unit, motel, nursing home or other building or part of a building;

b) a caravan, mobile home or other vehicle or structure on land;

c) a water craft in a marina.

"environmental nuisance" has the same meaning as is defined in section 15 of the *Environmental Protection Act 1994.*

"ERA" means ERA 16.2(a).

"hazardous contaminant" under schedule 3 of the *Environmental Protection Act 1994* means a contaminant that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of:

a) its quantity, concentration, acute or chronic toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity, flammability; or

b) its physical, chemical or infectious characteristics (e.g. spills of mercury, cyanide, petrol, diesel or oil).

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration:

a) is clearly audible to, or can be felt by, an individual; and

b) annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 — 1997 Acoustics — Description and Measurement of Environmental Noise Part 2 — Application to Specific Situations.

"$L_{A,\ max\ adj,\ T}$" 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 "Schedule C – Land" of this document means land excluding waters and the atmosphere.

"noise sensitive place" means:

a) a dwelling, mobile home or caravan park, residential marina or other residential premises;

b) a motel, hotel or hostel;

c) a kindergarten, school, university or other educational institution;

d) a medical centre or hospital;

e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; and

f) a public thoroughfare, park or gardens;

and includes that part of the curtilage of a building or structure used for purposes usually or reasonably associated with the building or structure.

"noxious" means harmful or injurious to health or physical well being.

"nuisance sensitive place" includes:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or

b) a motel, hotel or hostel; or

c) a kindergarten, school, university or other educational institution; or

d) a medical centre or hospital; or

e) a protected area under the *Nature Conservation Act 1992,* the *Marine Parks Act 2004* or a World Heritage Area; or

f) a public thoroughfare, park or gardens;

and includes a place within the curtilage of such a place reasonably used by persons at that place.

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

"protected area" means:

a) a protected area under the *Nature Conservation Act 1992;* or

b) a marine park under the *Marine Parks Act 2004;* or

c) a World Heritage Area.

"quarry material" means material on State coastal land, other than a mineral within the meaning of any Act relating to mining. Material includes for example stone, gravel, sand, rock, clay, mud, silt and soil, unless it is removed from a culvert, stormwater drain or other drainage infrastructure as waste material.

"regulated waste" means non-domestic waste mentioned in Schedule 7 of the Environmental Protection Regulation 2008 (whether or not it has been treated or immobilised), and includes:

a) for an element - any chemical compound containing the element; and

b) anything that has contained the waste.

"sensitive place" includes:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises;

b) a motel, hotel or hostel;

c) a kindergarten, school, university or other educational institution;

d) a medical centre or hospital;

e) a protected area under the *Nature Conservation Act 1992,* the *Marine Parks Act 2004* or a World Heritage Area;

f) a public thoroughfare, park or gardens; and

g) a commercial place;

and includes that part of the curtilage of a building or structure used for purposes usually or reasonably associated with the building or structure.

"site" means the place to which this environmental authority relates or the premises 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" includes 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" or **"holder"** means the holder of an environmental authority or person acting under an environmental authority.

END OF CONDITIONS (2)

Part 3 - Sinnamons Lane, HARLIN QLD 4306

Environmentally relevant activity	Location
ERA 53 – Organic material processing – processing more than 200t of organic material by composting the material.	Lot 17 Plan RP146684

The environmentally relevant activity(ies) conducted at the locations described above for this part must be conducted in accordance with the following site specific conditions.

Conditions

Schedule A: General	
Condition number	**Condition**
G1	**Prevent and /or minimise likelihood of environmental harm** In carrying out the environmentally relevant activities, you must take all reasonable and practicable measures to prevent and / or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have been prevented, shall be carried out in a proper manner in accordance with the conditions of this environmental authority. NOTE: *This environmental authority authorises the environmentally relevant activity. It does not authorise environmental harm unless a condition contained within this environmental authority explicitly authorises that harm. Where there is no condition or the environmental authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm*.
G2	**Maintenance of Plant and Equipment** The holder of this environmental authority must: a) maintain plant and equipment in a proper and efficient condition; and b) operate plant and equipment in a proper and efficient manner. In this condition, "plant and equipment" includes: a) plant and equipment used to prevent and or minimise the likelihood of environmental harm being caused, for example dust and odour control measures, stormwater management system, bunding systems; b) device and structure to contain foreseeable escapes of contaminants and waste; c) device and structures used to store, handle, treat and dispose of waste; d) monitoring equipment and associated alarms; and e) backup system that act in the event of failure of a primary system.
G3	**Display of Environmental authority** A copy of this environmental authority and environmental authority must be kept in a location readily accessible to personnel carrying out the activity.

G4	**Site based management plan** From commencement of the activity, a Site Based Management Plan (SBMP) must be implemented. The SBMP 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 SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all Environmentally Relevant Activities that are carried out. The site based management plan must address the following matters: a) Environmental commitments - a commitment by senior management to achieve 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 the contaminant releases; h) Conducting environmental impact assessments; i) Staff training; j) Record keeping; and k) Periodic review of environmental performance and continual improvement.
G5	**Records** Any record or document required to be kept by the condition of this environmental authority must be kept at the appropriate licensed place for a period of at least five years (except as otherwise provided) and be available for examination by an authorised person.
G6	Copies of any record or document or document required to be kept by a condition of this environmental authority must be provided to any authorised person or the administering authority on request.
G7	**Alterations** No change, replacement or operation of any plant or equipment is permitted if the change, replacement or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm above the expressly provided by this environmental authority. An example of a substantial increase in the risk of environmental harm is an increase of 10% or more in the quantity of the contaminant to be released into the environment
G8	**Calibration** All instrument and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority must be calibrated, and appropriately operated and maintained.

Schedule B: Air	
Condition number	**Condition**
A1	**Nuisance** The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any odour sensitive place.
A2	**Dust nuisance** The release of dust and/or particulate matter resulting from the activity must not cause an environmental nuisance at any dust sensitive place.
A3	Exceedance of any of the following levels when measured at any dust sensitive place is an environmental nuisance for the purposes of condition A1. a) Dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3580.10 of 1991; OR b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM_{10}) suspended in the atmosphere of 150 micrograms per cubic metre over a 24 hour averaging time, at a dust sensitive place downwind of the site, when monitored in accordance with: i. Australian Standard AS 3580.9.6 'Ambient air - Particulate matter - Determination of suspended particulate PM_{10} high-volume sampler with size-selective inlet – Gravimetric method'; or ii. any alternative method of monitoring PM_{10} which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
A4	When requested by the Administering Authority, dust and particulate monitoring must be undertaken to investigate any complaint of environmental nuisance caused by dust and/or particulate matter, and the results notified within 14 days to the administering authority following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place and at upwind control sites and must include: a) for a complaint alleging dust nuisance, dust deposition; and b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM_{10}) suspended in the atmosphere over a 24hr averaging time.
A5	**Dust and Particulate Emissions from Composting Operations** The holder of this environmental authority must undertake all reasonable and practicable measures necessary to minimise wind-born dust and particulate matter emissions to the atmosphere from composting operations at the licensed place. Such measure may include, but are not limited to: a) composting windrow forming and turning, compost remixing, blending and screening operations in calm weather conditions; b) maintaining any composting windrows and raw material stockpiles in moist conditions; and c) screening and sizing of material in a moist condition and/or installing of dust impervious enclosure on any screening plant or equipment.

A6	Vehicle tyres and under bodies must be sufficiently free of dust and mud, including by being washed and/or cleaned prior to leaving the licensed place if necessary, so as to ensure that dust and/or mud is not depositing on any public road by vehicles leaving the licensed place.
A7	**Noxious or Offensive Odour** Notwithstanding any other condition of this environmental authority no release of contaminants from the licensed place is to cause a noxious or offensive odour beyond the boundaries of the licensed place at any odour sensitive place.
A8	The holder of this environmental authority must ensure that loads of un-stablised poultry and other odorous organic materials are covered during transport to and from the licensed place
A9	The holder of this environmental authority must ensure that odorous organic materials are covered with an inert material or formed into composting windrows within the same day of arrival.
Schedule C: Water	
Condition number	**Condition**
W1	**Release to waters** Contaminants must not be released from the site to any waters or the bed and banks of any waters.
W2	**Stormwater management** There must be no release of stormwater runoff that has been in contact with any contaminants at the site to any waters, roadside gutter or stormwater drain.
W3	**Sediment and Erosion Control** A system of effective diversion drains and/or embankments must be constructed and maintained to divert surface waters away from any area of the licensed place where contact with process raw materials, wastes or contaminants may occur.
W4	Leachate and stormwater runoff which has been in contact with poultry and cattle manure wastes or contaminants on the licensed place, must not be released to any stormwater drain or any waters (including groundwaters).
W5	All contaminated stormwater runoff from composting areas must be collected and treated in a sedimentation dam(s).
W6	Drainage through and from all trafficable areas and production activities must be designed to minimise surface flow velocities.
W7	**Stormwater Management Plan** By 30 June 2003, the holder of this environmental authority, must develop and implement an effective and appropriate Stormwater Management Plan which details how the holder of this environmental authority will manage the actual and potential environmental impacts resulting from the contamination of stormwater at the Harlin licensed place.
W8	The Stormwater Management Plan must address at least the following matters:

	a) prevention of incident stormwater and stormwater runoff from contacting wastes or contaminants; b) diversion of upstream runoff away from areas containing wastes or contaminants; c) minimisation of the size of contaminated areas; d) cleaning of contaminated areas without water; e) installation of pollution control equipment such as sedimentation dams, settling pits and stormwater diversion systems; and f) paving and roofing of contaminated areas
W9	A copy of the Stormwater Management Plan(s) and any subsequent amendments to the Stormwater Management Plan must be kept at the Harlin licensed place and be available for examination by an authorised person on request.
W10	The holder of this environmental authority must not implement a Stormwater Management Plan or amend a Stormwater Management Plan where such implementation or amendment would result in a contravention of any condition of this environmental authority.
W11	The holder of this environmental authority must submit details of any subsequent amendment to the Stormwater Management Plan(s) to the administering authority with the annual return which immediately follows the enactment of such amendment.
W12	**Maintenance and Clean up** The maintenance and clean up of vehicles and other equipment or plant must be carried out in areas from where contaminants cannot be released into any waters, roadside gutter or stormwater drainage system.
W13	Any spillages of wastes, contaminants or other materials must be cleaned up as quickly as practicable. Spillages must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any stormwater drainage system, roadside gutter or waters.
W14	By 30 June 2003, all dams used for the storage or treatment of contaminants or wastes must be installed and maintained to prevent any discharge through the bed or banks of the dam from causing environmental harm in any waters (including groundwaters).
W15	All dams used for the storage or treatment of contaminants or wastes must be constructed and maintained so that a freeboard of not less than 0.5 metres is maintained at all times other than in flood events.
W16	All dams used for the storage or treatment of contaminants or wastes must be constructed and maintained to ensure the stability of the dams construction.
W17	Sediment collected in all sedimentation dam(s) must be removed whenever the volume of the pond(s) is reduced by 30%, or on other occasions where such removal is necessary to minimise likelihood of environmental harm occurring, for example where the effectiveness of the sedimentation pond in settling sediment is reduced.
W18	**Bunding** All additives (agricultural trace elements) and fuel tank storages must be separated and bunded so that the capacity of the bund is sufficient to contain at least 100% of the largest storage tank plus 10% of the second largest tank within the individual bund.

W19	All bunding must be constructed and maintained so as to be impervious to the material stored to allow retention and recovery of any materials being contained within the bund.
W20	All bunding must be roofed where practicable.
W21	Where it is impractical to completely roof a bunded area the holder of this environmental authority must ensure that any stormwater captured within the bund is free from contaminants or wastes prior to any release.
W22	For the installation of any other bunding following the issuing of this environmental authority, 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.
W23	All required pipework from the bunded areas must be directed over the bund wall and not through it.

Schedule D: Noise

Condition number	**Condition**
N1	**Noise nuisance** Noise from activities must not cause an environmental nuisance at any noise affected premises.
N2	All noise from activities must not exceed the levels specified in Schedule D - Table 1 at any noise affected premises. Table 1

Noise level dB(A)	**Monday to Saturday**			**Sundays and public holidays**		
	7am - 6pm	**6pm - 10pm**	**10pm - 7am**	**9am - 6pm**	**6pm - 10pm**	**10pm - 9am**
	Noise measured at a 'Noise sensitive place'					
$L_{A10, adj, 10 mins}$	50	50	40	45	45	40
$L_{A1, adj, 10 mins}$	55	55	45	50	50	45
	Noise measured at a 'Commercial place'					
$L_{A10, adj, 10 mins}$	55	55	45	50	50	45
$L_{A1, adj, 10 mins}$	60	60	50	55	55	50

N3	**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 to the administering authority. Monitoring must include: a) $L_{A10, adj, 10 mins}$ b) $L_{A1, adj, 10 mins}$ c) the level and frequency of occurrence of impulsive or tonal noise;

	d) atmospheric conditions including wind speed and direction; e) effects due to extraneous factors such as traffic noise; and **f)** location, date and time of recording.
N4	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authorities' Noise Measurement Manual.
Schedule E: Waste	
Condition number	**Condition**
WA1	Only the following waste materials are permitted to be accepted: a) Manures: Poultry, Cattle and Pig; b) Crop Residue: Hay, Crop Stubble and 2nd Grade Grains, Fruit, Vegetable and Nuts.
WA2	Keep and maintain records of source, volumes and composition of all waste types accepted at the premises and report these values to the administering authority by anniversary day of each year
Schedule F: Land	
Condition number	**Condition**
L1	**Preventing contaminant release to land** Contaminants must not be released to land.
Schedule G: Community	
Condition number	**Condition**
C1	All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.
C2	In consultation with the administering authority, cooperate with and participate in any community environmental liaison committee established in respect of either the site specifically, or the industrial estate where the site is located.

Definitions

Words and phrases used throughout this licence or environmental authority are defined below:

Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority the definitions provided in the *Environmental Protection Act 1994,* its regulations, and Environmental Protection Policies shall be used.

"administering authority" means the department of Environment and Science or its successor.

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

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

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

"this authority" means this environmental authority and includes the conditions contained within.

"approval" means this environmental authority.

dust sensitive place" means -

a) a dwelling, mobile home or caravan park, residential marina or other residential place;

b) a motel, hotel or hostel;

c) a kindergarten, school, university or other educational institution;

d) a medical centre or hospital;

e) a protected area;

f) a park or gardens; or

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

and includes the curtilage of any such place.

"odour sensitive place" has the same meaning as a "dust sensitive place".

"dwelling" means any of the following structures or vehicles that is principally used as a residence:

a) a house, unit, motel, nursing home or other building or part of a building;

b) a caravan, mobile home or other vehicle or structure on land; or

c) a water craft in a marina.

"noxious" means harmful or injurious to health or physical well being.

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

"nuisance sensitive place" includes:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or

b) a motel, hotel or hostel; or

c) a kindergarten, school, university or other educational institution; or a medical centre or hospital; or

d) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or

e) a public thoroughfare, park or gardens; or

f) 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 reasonably used by persons at that place.

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

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

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

"noise affected premises" means a "noise sensitive place "or a "commercial place".

"noise sensitive place" means:

a) a dwelling, mobile home or caravan park, residential marina or other residential premises; or a motel, hotel or hostel; or

b) a kindergarten, school, university or other educational institution; or

c) a medical centre or hospital; or

d) a protected area; or

a) a park or gardens,

and includes the curtilage of such place.

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

intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration:

a) is clearly audible to, or can be felt by, an individual; and

b) annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

"protected area" means -

a) a protected area under the *Nature Conservation Act 1992*; or

b) a marine park under the *Marine Parks Act 2004*; or

c) a World Heritage Area.

"waters" includes 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.

"50th percentile" means not more than three (3) of the measured values of the quality characteristic are to exceed the stated release limit for any six (6) consecutive samples for a release/monitoring point at any time during the environmental activity(ies) works.

"80th percentile" means not more than one (1) of the measured values of the quality characteristic is to exceed the stated release limit for any five (5) consecutive samples for a sampling point at any time during the environmental activity(ies) works.

"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.

"land" in the "Schedule F - Land" of this document means land excluding waters and the atmosphere.

"mg/L" means milligrams per litre.

"NTU" means nephelometric turbidity units.

"regulated waste" means non-domestic waste mentioned in Schedule 7 of the Environmental Protection Regulation 2008 (whether or not it has been treated or immobilised), and includes:

a) for an element - any chemical compound containing the element; and

b) anything that has contained the waste.

"licensed vehicle" means a vehicle authorised to be used under the licence to transport regulated waste.

"registered vehicle" means "licensed vehicle".

"clinical waste" means waste that has the potential to cause disease including, for example, the following:

a) animal waste;

b) discarded sharps;

c) human tissue waste; or

d) laboratory waste.

"infectious waste" means "clinical waste".

“vibration sensitive place" means a noise sensitive place or a commercial place.

"annual return" means the return required by the annual notice (under section 316 of the *Environment Protection Act 1994*) for the section 86(2) licence that applies to this environmental authority.

END OF CONDITIONS (3)

Part 4 - Sinnamons Lane, HARLIN QLD 4306

Environmentally relevant activity(ies)	Locations
ERA 16 – Extractive and screening activities. Threshold 2(b) - extracting, other than by dredging, in a year, more than 100,000t to 1,000,000t of material. ERA 16 Extractive and screening activities Threshold 3(b) - screening, in a year, more than 100,000t to 1,000,000t of material.	Lot 2 on Plan RP77219 Lot 88 on Plan RP28542 Lot 17 on Plan RP146684 Lot 30 on Plan SP258504 Lot 5 on Plan RP134429 That part of the bed and banks of the Brisbane River for access purposes (Area between Lot 88 on Plan RP28542 and Lot 30 on Plan SP258504).

The environmentally relevant activity(ies) conducted at the locations described above for this part must be conducted in accordance with the following site specific conditions.

Conditions

Schedule A: General	
Condition number	**Condition**
G1	**Approved place** This environmental authority authorises the development and operation of an extraction and screening activity at a rate not exceeding 1,000,000 tonnes in any period of one year, at the part of the place ("the approved place") depicted in the plan comprising - Drawing Number 11-079-4b Figure 4 — Operational Phase dated 12/04/12.
G2	The design and layout of facilities or infrastructure associated with the extraction of hardrock material must conform to the plan comprising - Drawing number 11-079-4b Figure 4 — Operational Phase, dated 12/04/12.
G3	**Copy of environmental authority must be kept at approved place** The person undertaking the activity to which this environmental authority relates must keep a copy of this environmental authority in hardcopy form at the approved place.
G4	**Prevent or minimise likelihood of environmental harm** In carrying out the activity to which this environmental authority relates, all reasonable and practicable measures must be taken to prevent or minimise the likelihood of environmental harm being caused.
G5	**Maintenance of measures, plant and equipment** The person undertaking the activity to which this environmental authority relates must do all of the following: a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;

	b) maintain such measures, plant and equipment in a proper and efficient condition; and c) operate such measures, plant and equipment in a proper and efficient manner.
G6	**Records** If a condition of this environmental authority requires the person undertaking the activity to which this environmental authority relates to make or keep a record (however described), or prepare a document, the person must do all of the following: a) keep the record or document at the approved place (or another place approved, in writing, by the administering authority); b) keep the record or document in a place that is accessible by all persons engaged in the activity; c) produce the record or document for inspection by an authorised person or the administering authority if requested; d) for each document or record made or created in response to a monitoring requirement, reporting requirement, investigation or incident — keep the record for a minimum of five (5) years from the date the document is made or created; and e) if the record of document is sent (in any form) to the administering authority — keep a copy of the document in accordance with paragraphs (a) to (d). Note - *Unless a condition of this approval requires a document to be made or kept in a specific format (e.g. in hardcopy format), the Electronic Transactions (Queensland) Act 2001 applies to the document.*
G7	**Site based management plan** The person undertaking the activity to which this environmental authority relates must keep and implement a site-based management plan (SBMP) that provides for the management of the actual and potential environmental impacts resulting from the carrying out of the activity to which this environmental authority relates, and includes the following: a) the functions and responsibilities of person's engaged in the activity (either by name or position) at the approved place; b) day-to-day procedures for the management of the activity specifically with respect to the management of aspects of the activity that cause, or may cause, a release of contaminants to the environment; c) the processes and procedures involved with the various aspects of the extraction phase of this process; d) the processes and procedures involved with the various aspects involved with crushing and screening of any raw materials won from this site or others; e) the processes and procedures involved with the stockpiling and loading of any materials won as a part of this activity; f) obligations for monitoring the operation and performance of all phases of the extraction, crushing and screening processes, and reporting particular non-compliance to the administering authority under a condition of this environmental authority or otherwise in accordance with any legally imposed duty to notify (however described) under the *Environmental Protection Act 1994*;

	g) describes training requirements for all persons engaged in the activity, including general environmental awareness, incident response, reporting and emergency procedures; h) the location and instruction for the operation and maintenance of all equipment used for clean-up of any spillages; i) investigation and response protocols to be utilised by persons engaged in the activity in response to any emergency, incident or event (including non-compliance events), the circumstances in which those protocols are to be applied, and describing escalation criteria for such events; j) the sampling and analysis regimes under the conditions of this environmental authority, identifying the person(s) responsible for taking monitoring samples; k) procedures for dealing with any abnormal situation or operation of the infrastructure used in the activity to which this environmental authority relates (including any uncontrolled release of contaminants to the environment, accident, incident or emergency or any situation or event that indicates non-compliance with the development conditions of this environmental authority has occurred or may occur); and l) response procedures for employees undertaking the activity arising from any emergency, incident or event (including any abnormal operating condition or circumstance observed or recorded in connection with the activity), including any protocols for the investigating any potential environmental harm arising from such emergencies, incidents or events.
G8	The person undertaking the activity to which this environmental authority relates must: a) review and update the SBMP annually to ensure that it remains current, is consistent with the conditions of this environmental authority, and reflects contemporary practice at the approved place; and b) ensure a record of the review containing at least the following information is kept: i. the name of the person who undertook the review; ii. the position the person who undertook the review holds in the organisation's hierarchy, or if the person is an external consultant, the person's position in that consultancy; iii. the date on which the review was undertaken; iv. any findings of the review; and v. any actions implemented as a result of such findings, including timelines by when such actions will be implemented.
G9	The person undertaking the activity to which this environmental authority relates must give the administering authority a copy of the SBMP: a) within three (3) months from the day this environmental authority takes effect; and b) if the plan in G8(a) is amended or replaced — within fourteen (14) days of the plan being amended or replaced. Note: *This requirement may be satisfied by giving the administering authority a copy of the SBMP in electronic format.*
G10	The person undertaking the activity to which this environmental relates must ensure the SBMP is kept in hardcopy form at the approved place.

G11	**Production capacity** The person undertaking the activity to which environmental authority relates must keep all records of materials despatched from the site at monthly intervals and provide annual summary.
G12	**Notification of certain releases or events to be supplies to the administering authority** The person undertaking the activity to which this environmental authority relates must notify the administering authority as soon as practicable after becoming aware of any release of contaminants to land or waters, unless one or more of the following applies: a) the administering authority has been given notice of the release or event under any statutorily imposed duty to notify under the *Environmental Protection Act 1994*; or b) the release or event is done in compliance with an emergency direction or a statutory notice or obligation under the *Environmental Protection Act 1994* given or issued to the person.
G13	If the person undertaking the activity to which this environmental authority relates is required to give notification to the administering authority of an event or release under condition G12, the notification must include the following information: a) the name and telephone number of a designated contact person who is able to talk with the administering authority on behalf of the operator in relation to the event or release; b) the location of the event or release, including a physical address and lot on plan description (if available) and any other information necessary to identify the specific location of the event or release; c) the time of the event or release (if known); d) the time the person became aware of the event or release; and e) if the event or release has impacted, or may impact on, a person's land — whether the person whose land has been, or may be, impacted by the event or release has been notified. NOTE 1: *This condition can be satisfied by supplying the information either verbally or in writing.* NOTE 2: *In certain circumstances, the duty to notify of unlawful serious or material environmental harm under the Environmental Protection Act 1994 obliges the person undertaking the activity that caused, or threatens, the harm to notify affected landholders.*

G14	If the person undertaking the activity to which this environmental authority relates is required under condition G12 to notify the administering authority of an event or release, the person must, within fourteen (14) days from the date of the event or release, give the administering authority a written notice that includes the following information: a) the name of the holder of the registration certificate under which the activity to which this environmental authority relates is being undertaken, the environmental authority number; b) the information included in the notification supplied under condition G13, including any updates or changes to that information of which the person has become aware as a result of any incident response or investigation; c) if the event or release involved a chemical, a material safety data sheet (MSDS) for the chemical; d) a description of any observed effects on the environment of the release or event, and any anticipated long-term impacts; e) the suspected cause of the release or event; f) the results of any environmental sampling performed in relation to the release or event; g) actions taken to mitigate any environmental harm (including environmental nuisance) caused by the release or event; h) proposed actions to prevent a recurrence of the release or event; and i) that the written advice is submitted under a condition of this environmental authority. NOTE: *This statement differentiates a notification made under a condition of this approval and a notification made under a statutorily imposed duty under the Environmental Protection Act 1994.*
G15	**Record certain releases and events** The person undertaking the activity to which this environmental authority relates must make a record of the following events: a) the time, date, duration and description of equipment malfunctions or failure where the malfunction results in the release of any contaminants (including noise and emissions to air) to the environment; or b) description of any uncontrolled release of contaminants, including an estimation of the volume of contaminants released in the event.
G16	**Monitoring** The person undertaking the activity to which this environmental authority relates must ensure that all monitoring required under a condition of this environmental authority is performed by a person(s) with appropriate experience or qualifications.
G17	**Complaint Response** The person undertaking the activity must record the following details for all complaints received: a) time and date the complaint was received; b) method of communication used for complaint received (i.e. telephone, email, letter, or in person);

	c) name and contact details (i.e. address, telephone number(s), and email address) of the complainant, if these details were disclosed as part of the complaint; d) time and date of the complaint; e) nature and source of the complaint; f) reasons for the complaint; g) any investigations undertaken, date investigations were undertaken and name of the responsible person; h) any conclusions formed; and i) any actions taken or proposed to be taken, date actions taken or proposed to be taken and name of the responsible person.
G18	**Spill kit** The person undertaking the activity to which this environmental authority relates must ensure an appropriate spill kit, protective equipment and relevant instructions and emergency procedures or guidelines for the management of wastes, regulated wastes and chemicals associated with the activity to which this environmental authority relates are kept at the approved place and are accessible at all times to any person undertaking the activity.
G19	The person undertaking the activity to which this environmental authority relates must: a) ensure that any person engaged in the activity to which this environmental authority relates is trained in the use of the spill kit and the emergency procedures or guidelines; b) keep a record of the names of person's that have received such training, the date the training was provided, and the details of the training provided.
G20	**Supervision of activity** The person undertaking the activity to which this environmental authority relates must ensure that at all times while the activity is operating: a) at least one person is present and whose duties include i. supervising any persons entering the facility; and ii. supervising the extraction, storage, loading and removal of extracted material; b) at least one person is responsible and contactable concerning the management of the facility and whose duties include: i. managing any persons working in the facility; ii. managing the carrying out of the activity; and iii. managing any events, emergencies or incidents that may occur.
G21	**Notification of commencement of activity** The person undertaking the activity to which this environmental authority relates must notify the administering authority in writing within five (5) business days after the following: a) the commencement of works to prepare the approved place for the carrying out of the activity; and b) the commencement of the carrying out of the activity (i.e. the initial extraction of materials).

<table>
<tr><th colspan="2">Schedule B: Air</th></tr>
<tr><th>Condition number</th><th>Condition</th></tr>
<tr><td>A1</td><td>Dust Nuisance
The release of dust or particulate matter resulting from the activity to which this environmental authority relates must not cause, or be likely to cause, an environmental nuisance at or beyond the boundary of the approved place.</td></tr>
<tr><td>A2</td><td>The dust deposition rate and concentration of PM_{10} and PM_{TSP} must not exceed the limits specified in Table 1 - Dust and Particulate Matter for the contaminant when measured from a nuisance sensitive or commercial place in accordance with the measurement method specified in Table 1 - Dust and particulate matter.
Table 1 – Dust and particle matter
<table>
<tr><th>Contaminant</th><th>Measure</th><th>Limit</th><th>Measurement method</th></tr>
<tr><td>Dust</td><td>Deposition rate</td><td>120 mg/m^2/day</td><td>Australian Standard AS3580.10.1 of 2003 (or more recent editions)</td></tr>
<tr><td>PM_{10}</td><td>Concentration</td><td>50µg/m^3 averaged over 24 hours
Note - This limit is not to be exceeded on more than 5 days per year</td><td>Either of the following:
(a) AS3580.9.6 of 2003 (or more recent editions); or
(b) AS3580.9.8 of 200 (or more recent editions)</td></tr>
<tr><td>Total Suspended Particulates (PM^{-}_{TSP})</td><td>Concentration</td><td>90 µg/m^3 as an annual average</td><td>Australian Standard AS/NZ3580.9.3.2003 (or more recent editions)</td></tr>
</table>
Notes

Australian Standard AS3580.9.6 of 2003 (or more recent editions) Ambient Air — Particulate matter —Determination of suspended particulate matter PM_{10} high volume sampler with size selective inlet — Gravimetric method
Australian Standard AS3580.9.8:2008 (or more recent editions) Methods for sampling and analysis of ambient air — Determination of suspended particulate matter — PM_{10} continuous direct mass method using tapered element oscillating microbalance (TEOM) analyser.
Australian Standard AS/NZ3580.9.3.2003 (or more recent editions) Methods for sampling and analysis of ambient air method 9.3: Determination of suspended particulate matter — Total suspended particulate matter (TSP) — High volume sampler gravimetric method.
·Any alternative method of monitoring which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
</td></tr>
<tr><td>A3</td><td>Despite condition G5, the person undertaking the activity to which this environmental authority relates is required to install equipment to measure the dust deposition rate or the concentration of particulate matter (PM_{10} and PM_{TSP}) for condition A2 only if directed to in writing by the administering authority or an authorised person to undertake monitoring for those contaminants.
The person undertaking the activity relates must also ensure that an additional sample is taken at a location upwind of the alleged source to assist in the determination of the impact the alleged source on the sensitive receptor.</td></tr>
</table>

A4	**Dust and Particulate Matter Control — Trafficable Areas** The person undertaking the activity to which this environmental authority relates must ensure that areas subject to frequent vehicle movement are sealed or otherwise consolidated in such a way that dust emitted from the ordinary use of vehicles is minimised.
A5	**Minimising windborne emissions from vehicles** To reduce the frequency and severity of windborne emissions arising from the transportation of the extracted material or any resultant product of any crushing or screening process, the person undertaking the activity to which this environmental authority relates must do all of the following: a) for materials that are transported in a solid state; i. if the load is dry at the time of loading, or otherwise emitting dust during manual handling or loading — ensure loads of material are wet down prior to transportation; ii. ensure any material that may have accumulated on vehicle side rails, tail gates or draw bars is removed prior to the vehicle leaving the loading place; iii. ensure the vehicle is of a type that is suitable to fully contain the material in transit; iv. ensure the material is not tracked by vehicles outside the approved place; v. ensure vehicles carrying any products from this site are covered by a tarpaulin or solid cover before leaving the approved place; and b) for materials transported in a liquid or semi-liquid state - ensure the material is transported in fully enclosed vessels or tankers of a type and design that is suitable to contain the material whilst in transit.
A6	**Dust and Particulate Matter Control - crushing and screening** To reduce the frequency and severity of windborne releases of dust or particulate matter from activities associated with any crushing or screening process, the person undertaking the activity to which this environmental authority relates must do all of the following: a) ensure that screening is ceased during periods where dry or gusty winds are present; b) prior to transferring any materials that have the potential to cause dust emissions, ensure that these materials are maintained in a damp state via sprays at transfer or manual handling points; c) keep surfaces, other than those upon which raw material and finished product are stockpiled, clean of any loose material; and d) where there is evidence of off-site release of dust or particulate matter — install windbreaks or another form of shielding that will effectively reduce the horizontal wind velocity at the source areas for those emissions.
A7	**Dust and Particulate Matter Control - stockpiling raw and finished materials** To reduce the frequency or severity of releases of dust or particulate matter from the stockpiling of raw and finished materials, the person undertaking the activity to which this environmental authority relates must do all of the following:

	a) when any stockpiled materials are observed to be visibly releasing dust — wet down the stockpile or apply any other material that may effectively bind the surface of the stockpile; b) keep all areas, other than those used to stockpile material, free of any loose material with notable dust generation potential; and c) where there is evidence of off-site release of dust or particulate matter — install windbreaks or another form of shielding that will effectively reduce the horizontal wind velocity at the source areas for those emissions.
A8	**Dust Suppression** The person undertaking the activity to which this environmental authority relates must ensure that a means of applying water for the purpose of dust suppression, (for example a water truck fitted with an appropriate means of broadcasting water), is kept at the place to which this environmental authority relates at all times
A9	The person undertaking the activity to which this environmental authority relates must ensure that the rate of application of water for dust suppression is appropriate for the existing conditions and does not result in ponding or pooling of water on any surface.
A10	**Noxious or Offensive Odours** The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity to which this environmental authority relates must not cause, or be likely to cause, a nuisance at or beyond the boundary of the approved place.
A11	**Monitoring Obligations in Respect to Air Quality — Odour** The person undertaking the activity to which this environmental authority relates must, if directed in writing by the administering authority or an authorised person, undertake or commission the undertaking of odour monitoring for contaminants released from the approved place at the site and other locations relevant to ascertaining the odour at affected premises.
A12	Odour monitoring must be performed by an independent person or body possessing appropriate experience and qualifications to perform the required measurements. Odour monitoring must be conducted in accordance with Australian and New Zealand Standard AS/NZS 4323.3:2001, Stationary source emissions — Determination of odour concentration by dynamic olfactometry; and a method as approved by Queensland, New South Wales of Victorian regulatory agencies.
A13	**Monitoring Station** The person undertaking the activity to which this environmental authority relates must install a monitoring station, in accordance with Australian Standard AS2923 — 1987 (Ambient air — guide for measurement of horizontal wind for air quality applications) (or a later standard), to continually record and log the following parameters: a) barometric pressure; b) humidity; c) temperature; d) rainfall; and e) wind speed and direction.

A14	**Reasonable adjustment of practices, procedures or infrastructure for resolving nuisance complaints** The person undertaking the activity to which this environmental authority relates must investigate, or commission the investigation of any complaints of nuisance caused by noxious or offensive odours or dust or particulates and, if the complaints are validated, make reasonable adjustments to processes or equipment to prevent a recurrence.
Schedule C: Land	
Condition number	**Condition**
L1	Contaminants must not be released to land.
L2	The person undertaking the activity to which this environmental authority relates must ensure that erosion protection and sediment control measures are implemented and maintained to prevent and minimise erosion and the release of sediment during the preparatory phase of this development, prior to the extraction activity occurring at the approved place.
L3	**Chemical storage** The person undertaking the activity to which this environmental authority relates must ensure all chemicals and fuels stored at the approved place in containers of 200 litres or more (other than chemicals stored in intermediate bulk containers) are stored in a bunded area(s).
L4	The person undertaking the activity to which this environmental authority relates must ensure that chemicals, other than those to which condition L3 apply, are stored in one or more of the following ways: a) in a bunded area; b) in purpose-built containers (e.g. intermediate bulk containers) that conform to the relevant Australian standard for the storage of such materials; or c) for containers of 20 litres or less — in a designated storage area.
L5	The person undertaking the activity to which this environmental authority relates must ensure that all bunded areas are: a) of a type and design sufficient to contain at least 110% of the volume of the largest container within the bund; b) impervious to the material to the chemical to be stored in the bund; and c) maintained and managed in a way that ensures all the following apply: i. The capacity of the bund is not compromised by the entrapment of water; ii. materials or equipment are not stored within the bund; iii. all drains or valves servicing the bund are protected from accidental damage; iv. all drains or valves are closed and locked off at all times when not being used to empty the bund; or v. the bund is maintained in a serviceable condition and is not compromised by any gap, crack or other damage.

L6	The person undertaking the activity to which this environmental authority relates must not cause or permit chemicals that are incompatible to be stored within the same bund or containment area.
L7	All tanker loading and unloading areas must be bunded so that the capacity of the bund is sufficient to contain one hundred per cent (100%) of the largest compartment of any tanker using the area
L8	The person undertaking the activity to which this environmental authority relates must ensure that all fixed chemical storage tanks are roofed.
L9	The person undertaking the activity to which this environmental authority relates must not cause or permit the release of any stormwater from a bund unless it is free of contaminants prior to being discharged to a stormwater detention pond or irrigated to land.
L10	The person undertaking the activity to which this environmental authority relates must ensure that all empty drums are stored with their closures in place.
L11	**Vehicle maintenance** The maintenance and cleaning of vehicles, equipment or other plant equipment must be carried out in areas where any contaminants are captured and contained such as an on-site containment system to prevent any release of contaminants to land.
L12	**Erosion control** Erosion protection and sediment control measures must be implemented and maintained at the place to which this environmental authority relates.
L13	**Extraction and Rehabilitation Plan** The person undertaking the activity to which this environmental authority relates must keep and implement an Extraction and Rehabilitation Plan (ERP) at all times while this environmental authority is in effect that provides for progressive extraction and rehabilitation activities at the place to which this environmental authority relates, and includes the following: a) the period, not greater than 2 years, over which the ERP applies; b) a plan illustrating where all current and proposed activities are to be carried out at the approved place including undisturbed, disturbed, stockpile, loading and rehabilitation areas over the plan period; c) calculation of projected surface area of disturbed areas that exist at the commencement of the plan period and will exist at the end of the plan period; d) details of extraction depths and methods to be applied to win material over the plan period; e) extraction rate projected over the plan period; f) demonstrating that the proposed extraction does not compromise the person's ability to rehabilitate disturbed areas to meet final landform design or requirements under this environmental authority or other approvals applying to the land comprising the approved place; g) identification of soil characteristics, soil analysis, and soil separation for rehabilitation of areas subject to extraction over the plan period; h) design objectives for rehabilitation of disturbed areas taking into consideration surrounding undisturbed areas and future land use(s) for the site;

	i) details of rehabilitation methods to be applied to disturbed areas over the plan period; j) demonstrating ongoing suitability landform design criteria and design plan including end of extraction design and is consistent with the proposed future land use(s); k) identify success criteria for the disturbed areas including revegetation success rate and final landform; l) plans to revegetate areas and establish corridors over the plan period; m) describe rehabilitation indicators and the monitoring program to be used; n) a rehabilitation program for land disturbed or proposed to be disturbed at the approved place including rehabilitation maintenance and redesign if required; and o) the status of rehabilitation progress occurring at the approved place.
L14	The person undertaking the activity to which this environmental authority relates must give the administering authority a copy of the ERP: a) within three (3) months after this environmental authority takes effect; and b) if the ERP in paragraph (a) is amended or replaced — within fourteen (14) days of the ERP being amended or replaced.
L15	The person undertaking the activity to which this environmental authority relates must ensure the ERP is kept in hardcopy format.
L16	The person undertaking the activity to which this environmental authority relates must: a) review and update the ERP at least once in each period of 2 years to ensure that it remains current, is consistent with the conditions of this environmental authority, and reflects contemporary activities and practices at the approved place; and b) ensure a record of the review is kept at the approved place.
L17	**Rehabilitation** The person undertaking the activity to which this environmental authority relates must ensure that rehabilitation of disturbed areas takes place progressively as works are staged and new areas of extraction have commenced.
L18	For applying condition L17**,** rehabilitation must commence on those areas disturbed by extraction activities, apart from those areas currently being actively utilised for extraction activities, within three (3) months after the completion of the extraction activities in those areas. Rehabilitation of disturbed areas includes slopes, borrow pits, stockpile storage areas, and sedimentation basins in a manner such that: a) all disturbed land is reshaped to a stable landform and is not subject to slumping; b) the potential for erosion is minimised; c) the surface drainage lines are re-established; d) suitable topsoil is reinstated on areas where revegetation is possible; suitable vegetation species and density of cover are established which is consistent with the surrounding undisturbed areas or the site's proposed future land use; e) the likelihood of environmental nuisance being caused by release of dust is minimised; and

	f) infrastructure is removed from the site.
L19	**Maintenance of rehabilitated areas** Maintenance of rehabilitated areas must take place to ensure: a) erosion control measures remain effective; b) plants show growth; c) (any weed infestations are removed and prevented from recurring; d) plants that have not taken, died or have become diseased are removed and disposed of appropriately and replaced as soon as practical; e) significant plant losses are examined for possible causes; and f) the rehabilitated land should be capable of withstanding normal disturbances such as fire or flood.
L20	Maintenance of these rehabilitated areas must continue until such time as the operator can demonstrate that the areas has been successfully rehabilitated to a condition that will comply with condition L18 and that the rehabilitation works in the area is self-sustaining and no longer relies on the intervention of the person undertaking the activity.
L21	**Financial assurance** Prior to the commencement of operation at the approved premise, the registered operator must provide financial assurance for the relevant stage of operation for the purposes of rehabilitation. This financial assurance must be in the amount and form required by the administering authority: a) on completion of each stage of rehabilitation, the registered operator is to provide the administering authority with a report prepared by a suitably qualified professional; b) the amount held for the financial assurance must be reviewed every five (5) years by the registered operator and the review is to be provided to the administering authority; and c) should the review be accepted by the administering authority and requires an increase or reduction of financial assurance, this is to be paid or refunded within 30 business days. NOTE: *The calculation of the financial assurance must be in accordance with the administering authorities Guideline — Calculating Financial Assurance or another publicly available document deemed suitable by the administering authority. The amount is defined as the maximum total rehabilitation cost for complete rehabilitation of the disturbed areas, which may vary on an annual basis due to progressive rehabilitation and consumer price index. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year and calculated using the formula: (Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.*
L22	The financial assurance must be provided in the form of: a) cash; or b) financial institution's undertaking - must be unconditional, irrevocable and on demand guarantee from an acceptable financial institution.
L23	The total financial cost in establishing and reviewing the financial assurance identified in condition L21 is the responsibility of the registered operator.

<table>
<tr><td>L24</td><td>The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely and the site has been rehabilitated in accordance with the conditions of this environmental authority.

NOTE: Where progressive rehabilitation is completed and acceptable to the administering authority, progressive reductions to the amount of financial assurance may be applicable where rehabilitation has been completed in accordance with the acceptance criteria defined within this environmental authority.</td></tr>
<tr><td colspan="2">Schedule D: Noise</td></tr>
<tr><td>Condition number</td><td>Condition</td></tr>
<tr><td>N1</td><td>Noise nuisance

Noise from activities must not cause an environmental nuisance at any noise affected premises.</td></tr>
<tr><td>N2</td><td>Subject to condition N4, the sound pressure level dB(A) from the activity to which this environmental authority relates, but excluding blasting associated with the activity, must not exceed the maximum compliance limit specified in the following table when measured using the acoustic descriptor, and at the location and at the times, specified in the Table 2 - Noise Limits.

Table 2 – Noise Limits
<table>
<tr><th rowspan="2">Location</th><th rowspan="2">Noise Level dB(A) measured as</th><th>Monday to Saturday</th><th>Monday to Friday</th><th>Saturday</th><th rowspan="2"></th></tr>
<tr><th>6:00am to 7:00am (Despatch only)</th><th>7:00 am to 6:00 pm</th><th>7:00am to 4:00pm</th></tr>
<tr><td>At a noise sensitive place</td><td>$L_{Aeq,\ adi\ 15mln}$</td><td>37</td><td>40</td><td>40</td><td>No audible noise</td></tr>
<tr><td>At a commercial place</td><td>$L_{Aeq,\ adi\ 15mln}$</td><td>42</td><td>45</td><td>45</td><td>No audible noise</td></tr>
</table>
NOTE: Section 440R of the Environmental Protection Act 1994 limits the hours at which building work causing an audible noise may be undertaken, and applies to building work undertaken as part of the activity to which this environmental authority relates.</td></tr>
<tr><td>N3</td><td>There must be no audible noise emitted from the activity to which this environmental authority relates at the boundary of the approved place at times outside of the hours of day specified in Table 2 - Noise Limits.</td></tr>
<tr><td>N4</td><td>The maximum compliance limits in condition N2 relating to noise measured at a nuisance sensitive place apply only to a nuisance sensitive place that is outside the approved place and is one of the following:

a) a nuisance sensitive place that is established on the date this environmental authority takes effect; or

b) to a nuisance sensitive place to which N4(a) does not apply — only if the nuisance sensitive place is at least the same distance from the approved place as a nuisance sensitive place to which N4(a) applies.</td></tr>
</table>

<table>
<tr><td>N5</td><td>Administering authority may require noise monitoring to be undertaken
If directed by the administering authority or an authorised person, noise monitoring, which addresses the following issues, must be undertaken to investigate any complaint of noise nuisance, and the results of the monitoring are given or sent to the administering authority or authorised person within fourteen (14) days of the completion of the monitoring:
a) background noise;
i. $L_{A10, adj, 15}$;
ii. $L_{A1, adj, 15;}$
iii. $L_{Aeq, adj, 15}$;
b) the level and frequency or occurrence of impulsive or tonal noise;
c) atmospheric conditions including wind speed and direction;
d) effects due to extraneous factors such as traffic noise; and
e) location, date and time of recording.</td></tr>
<tr><td>N6</td><td>The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise Measurement Manual.</td></tr>
<tr><td>N7</td><td>Blasting – Vibration
Blasting must not be carried out other than during the times specified in Table 3 - Vibration Limits at a nuisance sensitive place.</td></tr>
<tr><td>N8</td><td>Vibration emitted from activities associated with the approved place must not exceed the levels specified in Table 3 - Vibration Limits.
Table 3 — Vibration Limits
<table>
<tr><th>Monday to Friday
9:00am to 3:00pm</th><th>Saturday
9:00am to 1:00pm</th><th>Sundays, public holidays and times outside of those specified</th></tr>
<tr><td colspan="2">Ground bourne vibration must not exceed a peak particle velocity of 5mm per second for nine out of ten consecutive blasts initiated, regardless of the interval between blasts; and</td><td rowspan="2">No blasting to occur</td></tr>
<tr><td colspan="2">Ground bourne vibration must not exceed a peak particle velocity of 10mm per second for any blast</td></tr>
</table></td></tr>
<tr><td>N9</td><td>The limits imposed by condition N8 relating to vibration measured at a nuisance sensitive place apply only to a nuisance sensitive place that is outside of the approved place.</td></tr>
<tr><td>N10</td><td>Vibration monitoring
For vibration monitoring the ground-bourne vibration transducer (or array) must be attached to a mass of at least thirty (30) kilograms to ensure good coupling with the ground where the blast site and the measurement site cannot be shown to be on the same underlying strata. The mass must be buried so that its uppermost surface is at the same level as the ground surface.</td></tr>
<tr><td>N11</td><td>The ground borne vibration transducer (or array) must be placed at a distance of at least the longest dimension of the foundations of a noise-affected building or structure away from such building or structure and between that building or structure and the site of the blasting.</td></tr>
</table>

<table>
<tr><td>N12</td><td>Airblast Overpressure Limits
The airblast overpressure emitted during any must not exceed the limits imposed Table 4 - Airblast Overpressure Limits.
Table 4 - Airblast Overpressure Limits
<table>
<tr><th>Monday to Friday
9:00am to 3:00pm</th><th>Saturday
9:00am to 1:00pm</th><th>Sundays, public holidays and times outside of those specified</th></tr>
<tr><td colspan="2">115 dB (linear) peak for nine out of any ten consecutive blasts initiated, regardless of the interval between blasts; and</td><td rowspan="2">No blasting to occur</td></tr>
<tr><td colspan="2">120 dB (linear) peak for any blast.</td></tr>
</table></td></tr>
<tr><td>N13</td><td>Outdoor measurement of airblast overpressure
Measurement of airblast overpressure must be taken at a location that is exposed to the direction of blasting and at least four (4) meters from any affected building or structure or within the boundary of a noise sensitive place, at a position of between 1.2 and 1.5 meters above the ground.</td></tr>
<tr><td>N14</td><td>The method of measurement of the noise from blasting must be measured using noise measurement equipment with a lower limiting frequency of 2Hz (-3dB response point of the measurement system) and a detector onset time of not greater than 100 microseconds as assessed in accordance with the standards AS 1EC61672.1-2004 and AS IEC61672.2-2004.</td></tr>
<tr><td>N15</td><td>Airblast overpressure and ground vibration monitoring
If requested by the administering authority, or an authorised person, airblast overpressure and ground vibration monitoring must be undertaken to investigate any complaint of vibration or nuisance noise associated with blasting, and the results notified within 14 days to the administering authority. Monitoring must include:
a) maximum instantaneous charge (MIC) in kg;
b) location of the blast within the site (including which bench level);
c) airblast overpressure level, dB (linear) peak
d) peak particle velocity (mm/s);
e) location, date and time of recording;
f) the level and frequency of occurrence of impulsive or tonal noise;
g) meteorological conditions (including temperature, relative humidity, temperature gradient, cloud cover, windspeed and direction);
h) distance from the blast site to the noise-affected building/s, structures or the boundary of any noise-sensitive place; and
i) effects due to other extraneous factors.</td></tr>
<tr><td>N16</td><td>Obligation to investigate complaints
Subject to condition N17, the person undertaking the activity to which this environmental authority relates must investigate, or commission the investigation of, all complaints alleging airblast overpressure, vibration or noise nuisance from the activity to which this environmental authority relates.
NOTE: The form of any investigations made under condition N17 should be sufficient to enable a conclusion about the validity of the complaint to be made, but do not necessarily require formal noise monitoring in the form required under condition N15.</td></tr>
</table>

N17	The obligation for the person undertaking the activity to which the environmental authority relates to investigate a nuisance complaint is negated if all the following apply: a) the facts and circumstances forming the basis for the complaint are substantially the same as those alleged in a former complaint by the same complainant; b) the results of an investigation into the former complaint was that the complaint cannot be substantiated; and **c)** the administering authority or an authorised person has not, by written notice, otherwise revived the obligation to investigate the complaint.
N18	**Reasonable adjustment for validated nuisance complaints** The person undertaking the activity to which this environmental authority relates must make reasonable adjustment of practices, procedures or equipment to resolve any validated complaint investigated under condition N16. Examples of a reasonable adjustment include: a) changing the times of the day at which particular actions giving rise to the complaint happen; b) installing or replacing acoustic housing of equipment; or c) enclosing, covering or closing open or exposed infrastructure if enclosing, covering or closing the infrastructure would not compromise or reduce its effectiveness. NOTE: *Refer to section 319 of the Environmental Protection Act 1994 (General environmental duty) for things that must be considered in determining whether a change is a reasonable adjustment.*
Schedule E: Water	
Condition number	**Condition**
W1	**Release to waters** A person must not cause or permit contaminants to be released to waters.
W2	**Stormwater management** The person undertaking the activity to which this environmental authority relates must ensure that suitable banks or diversion drains are installed and maintained to exclude stormwater runoff from entering any ponds or other structures used for the storage or treatment of contaminants or wastes.
W3	All waters flowing over any disturbed areas, such as extraction areas, stockpiling areas and unsealed roads, must be diverted to an onsite sediment basin.
W4	**Dust suppression** The person undertaking the activity to which this environmental authority relates must only use either uncontaminated stormwater or settled/treated water from any of the sedimentation basins for the purpose of dust suppression.
W5	**Vehicle Maintenance** The person undertaking the activity to which this environmental authority relates must ensure that:

	a) the maintenance and cleaning of vehicles or other equipment associated with the activity is carried out in an area designated for the service or cleaning of such vehicles or equipment; and b) the designated area under paragraph (a) is serviced by infrastructure of a type and design that is suitable to prevent the release of contaminants to any waters, roadside gutter or drain
W6	**Stormwater Management Plan** Prior to commencing the activity to which this environmental authority relates, the operator must develop and implement a Stormwater Management Plan (SWP) which includes: a) the reuse, treatment and disposal of any contaminated stormwater collected from this approved site; b) prevention of incident stormwater and stormwater runoff from contacting any waste materials, disturbed areas (including extraction areas, stockpile areas and any unsealed roads) or any other contaminants; c) diversion of upstream stormwater runoff away from areas containing wastes, areas of exposed soil or other disturbed areas, or other potential contaminants; d) minimisation of the size of any areas of exposed soil or other disturbed areas; and e) the installation of appropriately designed and sized silt traps, erosion protection measures, sediment control measures (including sedimentation basins) and stormwater diversion drains.
W7	The person undertaking the activity to which this environmental authority relates must: a) periodically review and revise, as necessary, the SWP every two (2) years to ensure that it accurately reflects the current processes employed onsite and the activities being undertaken; and b) if the SWP is amended or replaced, provide the administering authority with a copy within fourteen (14) days of the SWP being amended or replaced. NOTE: *This requirement may be satisfied by giving the administering authority a copy of the SWP in electronic format.*
W8	**Sedimentation Basins** Any pond, basin or dam installed onsite for the purpose of sediment control must be designed and constructed to comply with the following: a) the minimum size of any sediment basin must be sufficient to contain the contaminated runoff expected from a 24 hour storm with an average recurrence interval of at least 1 in 5 years; b) water retaining structures must be designed to prevent an influx of surface water from adjacent water courses from a 24 hour storm event with an average recurrence interval of at least 1 in 5 years; c) drainage structures must be sufficient to convey the runoff from a 24 hour storm with an average recurrence interval of at least 1 in 5 years; d) in the event of site flooding, flow paths must be designed to minimise re-suspension of fines or slimes; and e) any release point must be constructed in such a way as to prevent erosion and scouring of the area to which it discharges.

W9	All sedimentation basins used for the storage or treatment of waters at or on the authorised place must be constructed, installed and maintained: a) so as to minimise the likelihood of any release of effluent through the bed or banks of the basin to any waters (including ground water); b) so that a freeboard of not less than 0.5 meters is maintained and recorded at all times; and c) in such a way as to ensure the stability of the basin's construction.
W10	**Environmental monitoring and sampling following release event** If contaminants are released to waters, the person undertaking the activity to which this environmental authority relates must, if directed by the administering authority or an authorised person, do all of the following: a) take environmental samples to ascertain or confirm the nature and extent of contamination arising from the release; b) lodge such samples with a laboratory for analysis using a NATA-accredited methodology relevant to the analysis that must be performed; c) give or send a copy of the results of such analysis the administering authority with the report submitted to the administering authority under condition G14.
Schedule F: Waste	
Condition number	**Condition**
WA1	**Waste management Plan** From the commencement of the activity to which this environmental authority relates, a waste management program must be implemented: a) the types and amounts of waste generated by the activity; b) procedures for identifying and implementing opportunities to improve the waste management practices for dealing with accidents, spills and other incidents that may impact on the waste management practices employed (e.g. opportunities for beneficial reuse); c) procedures for dealing with accidents, spills or other incidents that may impact on waste management; d) details of any accredited management system employed, or planned to be employed, to deal with waste generated onsite; e) how often the performance of the waste management practices will be assessed by the person undertaking the activity; and f) the indicators or other criteria.
WA2	**Waste Disposal** Under no circumstances is any waste, other than any spoil or overburden removed as part of the extractive activity, or any by-products of the crushing and screening process permitted by this environmental authority, permitted to be disposed of to any of the voids created by this activity.

Definitions

The definitions in the *Environmental Protection Act 1994* and subordinate legislation (i.e. Regulations and Environmental Protection Policies), as amended from time to time, must be used. In the absence of any definition within the abovementioned legislation, the following definitions or the common meaning of the term is to be used.

"µg/m^3" means micrograms per cubic metre.

"µS/cm" means microsiemens per centimetre.

"approved place" means the site situated at Sinnamons Lane, Harlin (Lot 2 on RP77219, Lot 88 on RP28542, Lot 17 on RP146684, Lot 30 on SP258504, Lot 5 on RP134429 and that part of the bed and banks of the Brisbane River between Lot 88 on RP28542 and Lot 30 on SP258504).

"background noise" means L_{A90}, T being the A-weighted sound pressure level exceeded for 90 percent of the time period not less than 15 minutes, using Fast response.

"commercial place" means a place, other than a nuisance sensitive place, used as an office or for business or commercial purposes including the place within the curtilage of that place reasonably used by persons at that place.

"dB" means decibel.

"dewatered" means the material does not yield free liquids.

"drum" means any individual container for holding a chemical and having a capacity of not more than 250 litres (L).

"dwelling" means any of the following structures or vehicles that is principally used as a residence:

a) a house, unit, motel, nursing home or other building or part of a building;

b) a caravan, mobile home or other vehicle or structure on land;

c) a water craft in a marina.

"extraction facility" means the facility incorporating the ERA/s approved to be carried out under this environmental authority.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration:

a) is clearly audible to, or can be felt by, an individual; and

b) annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 — 1997 Acoustics — Description and Measurement of Environmental Noise Part 2 — Application to Specific Situations.

"$L_{A10,\ 10min}$" means an A-weighted sound pressure level equal to or exceeded for 10% of a 10 minute sample period, measured using fast ("F") response.

"$L_{A1,\ adj,\ 10min}$" means an A-weighted sound pressure level equal to or exceeded for 1% of a 10 minute sample period, measured using fast ("F") response, and adjusted for impulsiveness and tonality.

"$L_{A10,\ adj,\ 10min}$" means an A-weighted sound pressure level equal to or exceeded for 10% of a 10 minute sample period, measured using fast ("F") response, and adjusted for impulsiveness and tonality.

"$L_{Aeq,\ adj,\ 15min}$" means an A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within a 1 hour period has the same mean square sound pressure of a sound that varies with time.

"land" in Schedule C - Land of the Parts comprising this environmental authority, excludes waters and the atmosphere.

"leachate" means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

"mg/L" means milligrams per litre.

"m/s" means metres per second.

"monitoring" in relation to monitoring the impact of an activity on the receiving environment, includes analysing, assessing, examining, inspecting, measuring, modelling or reporting any of the following:

a) the quantity, quality, characteristics, timing and variability of the release of the contaminant

b) the effectiveness of control measures

c) characteristics of, and impact on, the receiving environment;

d) the effectiveness of remedial or rehabilitation measures.

"noxious" means harmful or injurious to health or physical well being.

"nuisance sensitive place" means a place, including the curtilage of the place ordinarily used by persons at that place, that is one or more of the following:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises;

b) a motel, hotel or hostel;

c) a kindergarten, school, university or other educational institution;

d) a medical centre or hospital;

e) a protected area under the *Nature Conservation Act 1992,* the *Marine Parks Act 2004* or a World Heritage Area; or

f) a public thoroughfare, park or gardens.

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

"$PM_{2.5}$" means particulate matter with an aerodynamic diameter of less than or equal to 2.5um.

"PM_{10}" means particulate matter with an aerodynamic diameter of less than or equal to 10um.

"protected area" means:

(a) a protected area under the *Nature Conservation Act 1992;*

(b) a marine park under the *Marine Parks Act 2004;* or

(c) a World Heritage Area.

"screen" includes washing, crushing, grinding, milling, sizing or separating material.

"site" means land or tidal waters on or in which it is proposed to carry out the development approved under this environmental authority.

"waters" includes any 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.

"works" or "operation" means the development approved under this environmental authority.

END OF CONDITIONS (4)