

Permit

Environmental Protection Act 1994

Environmental Authority EPPR00371913

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

Environmental authority number: EPPR00371913

Environmental authority takes effect on the day the authority is issued.

The anniversary date remains 16 December. Payment of the annual fee will be due each year on the anniversary day.

Environmental authority holder

Name	Registered address
NORTHERN SANDS TRADING PTY LTD	Suite 8, 431 Burke Rd, GLEN IRIS VIC 3146

Environmentally relevant activity and location details

Environmentally relevant activities	Locations
ERA 54 - Mechanical waste reprocessing 2: Operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of general waste- (c) more than 10,000t	Mobile and Temporary within the State of Queensland
ERA 57 Regulated waste transport: Transporting regulated waste	Mobile and Temporary within the State of Queensland
ERA 16 - Extraction and Screening 1: Dredging, in a year, the following quantity of material (c) more than 100,000t but not more than 1,000,000t 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 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 ERA 53 - Organic material processing: Processing more than 200t of organic material in a year - (a) by composting the organic material	Lot 5 on SP309133

Environmentally relevant activities	Locations
ERA 54 - Mechanical waste reprocessing 2: Operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of general waste- (c) more than 10,000t ERA 54 - Mechanical waste reprocessing 3: Operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of category 2 regulated waste- (a) 5,000t or less ERA 60 - Waste disposal 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(b) (f) more than 50,000t but not more than 100,000t ERA 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing- (b) general waste ERA 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing- (c) category 2 regulated waste	Lot 5 on SP309133
ERA 16 - Extraction and Screening 1: Dredging, in a year, the following quantity of material (c) more than 100,000t but not more than 1,000,000t 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 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 ERA 60 - Waste disposal 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(b) (e) more than 20,000t but not more than 50,000t	Lot 2 on RP712954

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 land give written notice to the administering authority if they become aware of the following:

- the presence of, or happening of an event involving, a hazardous contaminant on the land that is causing, or is reasonably likely to cause, serious or material environmental harm (notice must be given within 24 hours); or
- if the land is contaminated land – a change in the condition of the land that is causing, or is reasonably likely to cause, serious or material environmental harm (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 land (notice must be given within 20 business days).

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(1) 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.

However, in accordance with section 200(2) of the EP Act, the day that the EA takes effect may not be before:

- (a) if the authority is for a resource activity—the day the relevant tenure is granted to the applicant; or
- (b) if a development permit for a material change of use of premises under the *Planning Act 2016* is necessary for carrying out an activity that related to the authority—the day the development permit takes effect; or
- (c) if an SDA Approval under the *State Development and Public Works Organisation Act 1971* is necessary for carrying out an activity that relates to the authority—the day the approval takes 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 EA.



Signature

Scott Blanchard

Department of the Environment, Tourism, Science and Innovation
Delegate of the administering authority
Environmental Protection Act 1994

24 June 2026

Date

Enquiries:

Waste Assessment Business Centre
GPO Box 2454, Brisbane QLD 4001
Phone: 1300 130 372
Email: palm@detsi.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this EA, 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 restore the environment (section 319C)
- 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).

Other permits required

This permit only provides an approval under the EP Act. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department, and other State and Federal Government agencies prior to commencing any activity at the site. For example, this may include permits or approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access State controlled roads), the Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (to clear vegetation), and the Department of Primary Industries (to clear marine plants or to obtain a quarry material allocation).

Development approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this EA are separate, and in addition to, any conditions that may be on the development approval. If a copy of this EA is attached to a development approval, it is for information only and may not be current. Please contact the Department of the Environment, Tourism, Science and Innovation to ensure that you have the most current version of the EA relating to this site.

Obligations under the *Aboriginal Cultural Heritage Act 2003* and *Torres Strait Islander Cultural Heritage Act 2003* (the Cultural Heritage Acts)

The Cultural Heritage Acts require anyone who carries out a land-use activity to exercise a duty of care. This 'duty of care' means land users must take all reasonable and practicable measures to ensure their activity does not harm Aboriginal or Torres Strait Islander cultural heritage, and applies to any activity where Aboriginal or Torres Strait Islander cultural heritage is located. For more information on your obligations under this legislation, please visit the Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism webpage at, www.dwatsipm.qld.gov.au.

Conditions of environmental authority**Part 1 – Specific conditions relevant to ERA 57**

Location: Mobile and temporary through the state of Queensland

Activity: ERA 57 Regulated waste transport: Transporting regulated waste

Part 1 – Specific conditions relevant to ERA 57	
Condition number	Condition
Agency Interest: General	
P1-G1	Regulated waste must be transported by vehicles.
P1-G2	The only regulated wastes that can be transported under this environmental authority are: i) End-of-life tyres; and ii) Asbestos; and iii) Garnet sand.
P1-G3	The activity must be undertaken by vehicles whose registration details must be provided to the administering authority before commencing the activity. The administering authority must be notified within 10 business days of any change to the vehicle registration details.
P1-G4	The activity is undertaken by vehicles which are covered by a policy of insurance or other form of indemnity, for a sum that is not less than \$100,000, in respect of: a) personal injury, death, property damage and other damage (except consequential economic loss) arising out of fire, explosion, leakage or spillage of dangerous goods in, on or from the vehicle or a container on the vehicle; and b) costs incurred by or on behalf of a Commonwealth, State or Territory government authority in a clean-up resulting from any event of the kind referred to in subparagraph a) of this condition.
P1-G5	Any breach of a condition of this environmental authority must be reported to the administering authority as soon as practicable within 24 hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions taken.

P1-G6	The activity must be undertaken in accordance with written procedures that: a) identify potential risks to the environment from the activity during routine operations and emergencies; and b) establish and maintain control measures that minimise the potential for environmental harm; and c) ensure plant, equipment and measures are maintained in a proper and effective condition; and d) ensure plant, equipment and measures are operated in a proper and effective manner; and e) ensure that staff are trained and aware of their obligations under the <i>Environmental Protection Act 1994</i>; and f) ensure that reviews of environmental performance are undertaken and recorded at least annually.
P1-G7	The activity must not cause environmental nuisance at a sensitive place.
P1-G8	All records required by conditions of this authority must be kept for at least five years and provided to the administering authority within 10 business days upon its request.
P1-G9	When required by the administering authority, monitoring must be undertaken in the manner prescribed by the administering authority to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided within 10 business days to the administering authority upon its request.
P1-G10	All vehicles, including tanks, containers and secondary containers used to transport regulated waste must be: a) maintained at all times to prevent any spillage or leakage of regulated waste or other contaminants; and b) kept free of regulated waste residues at all times when not in use; and c) must be effectively cleaned and, where used for transporting clinical waste, must be disinfected before reuse.
P1-G11	At all times, a copy of: a) this environmental authority issued by the administering authority for regulated waste transport activities; and b) the appropriate emergency guides in relation to the waste transported must be carried in the cabin of each vehicle used to transport regulated waste and when requested, be presented to an authorised officer of the administering authority or relevant regulatory agency of the State or Territory in which the vehicle is travelling. <i>Note: Standards Australia publish numerous guides including HB 76-2004 Dangerous Goods – Initial emergency response guide, and emergency procedure guides (AS1678 Series) which are available from SAI Global Business Publishing. Further, when developing emergency guides in relation to PCB's, reference should be made to the United States Environmental Protection Agency 40CFR Part 761: Polychlorinated biphenyls: notification and manifesting for PCB waste activities: clause number 761.125</i>

P1-G12	When transporting regulated waste: a) any regulated waste not contained within weatherproof packages must be covered during transport to contain the load and protect it from wind and rain; and b) all regulated waste containers must be mounted securely to the vehicle and contained within the tray of the vehicle.
P1-G13	When transporting packaged regulated waste, the top of any container must not protrude above the sides or gates of the vehicle by more than 30% of the height of the container.
P1-G14	Road tank vehicles must: a) be constructed to minimise instability and risk of rollover; and b) be provided with roll-over protection to protect all tanks, components and fittings on the upper and side surfaces of the tank in the event of the vehicle rolling over or becoming inverted; and c) be provided with an effective bumper and/or barrier system to protect the tank and fittings from rear impact.
Agency Interest: Waste	
Condition number	Condition
P1-W1	Waste transported under the activity must be contained within a suitably designed waste containment structure that is constructed, operated and maintained in accordance with accepted engineering standards currently appropriate for the purpose for which the structure is intended to be used.
P1-W2	Regulated waste must not be removed or released from the vehicle other than: a) at a facility that can lawfully accept the waste.
P1-W3	Incompatible wastes must not be placed in the same container or transported in such a way that mixing may occur.
P1-W4	A record of all regulated waste (excluding trackable waste) must be kept detailing the following information for every load of waste transported: a) date of pickup of waste, including where loads are consolidated; b) description of waste; c) quantity of waste; d) origin of the waste; and e) destination of the waste. <i>Note: Additional waste tracking requirements apply to the transportation of trackable waste in accordance with the Environmental Protection Regulation 2019.</i>

P1-W5	All asbestos waste transported must be: a) double bagged and sealed in heavy duty polythene bags (minimum 200 µm thickness); or b) sealed in drums or bins that are lined with heavy-duty plastic (minimum 200 µm thickness); or c) where the volume or size of asbestos waste (e.g. large asbestos cement sheets) is greater than the volume or size of a bag, drum or bin: i. for friable asbestos waste, sealed in double lined heavy-duty plastic sheeting (minimum 200 µm thickness) prior to being placed into a waste skip, vehicle tray or similar container; or ii. for non-friable asbestos waste, placed in a waste skip, vehicle tray or similar container that has been double lined with heavy duty plastic sheeting (minimum 200 µm thickness) and kept damp, and then sealed within the plastic sheeting.
P1-W6	All asbestos waste transported must be labelled with a warning statement to indicate the presence of asbestos and that dust creation and inhalation needs to be avoided.
P1-W7	All particulate lead waste must be: a) double bagged and sealed in heavy duty polythene bags (minimum 200 µm thickness), and placed in containers on the vehicle; and b) labelled to indicate the presence of lead and with appropriate lead risk phrase and safety phrase.
P1-W8	All clinical and related waste must be provided with a rigid secondary containment system during transport.
P1-W9	Vehicles and load compartments must be locked when unattended.

Part 1 Definitions

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

Term	Definition
Activity	means the environmentally relevant activity to which this environmental authority relates. An activity may be undertaken on the whole or a part of a site.
ADG Code	means the <i>Australian code for the transport of dangerous goods by road and rail, 7th edition</i> , or more recent versions as they become available.
Administering authority	means the Department of Environment and Science or its successor.
Asbestos-containing material	means any material, object, product or debris that contains asbestos.
Asbestos waste	means all removed asbestos-containing materials and disposable items used during the asbestos removal work, such as plastic sheeting used for an enclosure or to cover surfaces in the asbestos work area, disposable coveralls, disposable respirators and rags used for cleaning etc.
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; and d) laboratory waste.
Combination vehicle	means a road vehicle that includes one or more trailers.
Commercial place	means 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.
Contaminant(s)	as defined in Section 11 of the <i>Environmental Protection Act 1994</i> .
Environmental harm	as defined in Section 14 of the <i>Environmental Protection Act 1994</i> .
Environmental nuisance	as defined in Section 15 of the <i>Environmental Protection Act 1994</i> .
Friable asbestos waste	means asbestos-containing material that is in powder form or which, when dry, is or may become crumbled, pulverised or reduced to powder by hand pressure.
Incompatible waste	means waste that may chemically react when: a) placed in proximity to other wastes; and/or b) mixed with other wastes.
Land	means land excluding waters and the atmosphere.

Term	Definition
Measures	has the broadest interpretation and includes plant, equipment, physical objects, monitoring, procedures, actions, directions and competencies.
Minimise	means minimise by taking all reasonable and practical measures to minimise the adverse effect having regard to the following matters: a) the nature of the harm or potential harm b) the sensitivity of the receiving environment c) the current state of technical knowledge for the activity d) the likelihood of successful application of different measures that might be taken to minimise the adverse effects e) the financial implications of the different measures as they would relate to the type of activity f) if the adverse effect is caused by the location of the activity being carried out, whether it is feasible to carry out the activity at another location.
Non-friable asbestos waste	means asbestos-containing material that is not friable asbestos waste, including material containing asbestos fibres reinforced with a bonding compound.
Sealed	means fully contained within. Where polythene sheeting has been used, adhesive tape should be applied to the entire length of every overlap.
Sensitive place	includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place: 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 <i>Nature Conservation Act 1992</i>, the <i>Marine Parks Act 2004</i> or a World Heritage Area; or f) a public park or garden; or g) for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.
Packaged regulated waste	means regulated waste in a container with: a) a capacity of not more than 450 litres; and b) a nett mass of not more than 400 kilograms.
Particulate lead waste	means lead waste that is capable of becoming airborne or unable to be easily recovered if a spill occurs during transport. Examples include waste from foundry filters and lead based paint residues.
Records	includes breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this environmental authority.

Term	Definition
Regulated waste	As defined in Section 42 of the <i>Environmental Protection Regulation 2019</i> .
Regulatory agency	means the agency of a State or Territory that has responsibility for regulating the transport of regulated wastes in that State or Territory.
Related waste	means waste that constitutes, or is contaminated with, chemicals, cytotoxic drugs, human body parts, pharmaceutical products or radioactive substances.
Risk phrase	means a phrase stated in the National Occupational Health and Safety Commission's document entitled <i>National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]</i> , or more recent versions, that gives information about the substance's hazards.
Road tank vehicle	means a truck, trailer or semi-trailer or unit in a road train, incorporating a tank, or having a tank or tanks mounted thereon, either permanently or temporarily (as defined in AS 2809.1–2008 — road tank vehicles for dangerous goods).
Safety phrase	means a phrase stated in National Occupational Health and Safety Commission's document entitled <i>National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]</i> , or more recent versions, that gives information about: a) the safe use of the substance; or b) the personal protective equipment for the substance.
Secondary containment system	means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to land, groundwater, or surface waters.
Vehicle	Means a road vehicle including an articulated or combination vehicle, and does not include a train, boat or aircraft.
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.

Part 2 – Site Specific Conditions

Location: Address - Lot 5 on SP309133

Activity: ERA 16 - Extraction and Screening 1: Dredging, in a year, the following quantity of material (c) more than 100,000t but not more than 1,000,000t
 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
 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
 ERA 53 - Organic material processing: Processing more than 200t of organic material in a year - (a) by composting the organic material
 ERA 54 - Mechanical waste reprocessing 2: Operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of general waste- (c) more than 10,000t
 ERA 54 - Mechanical waste reprocessing 3: Operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of category 2 regulated waste- (a) 5,000t or less
 ERA 60 - Waste disposal 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(b) (f) more than 50,000t but not more than 100,000t
 ERA 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing- (b) general waste
 ERA 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing- (c) category 2 regulated waste

Location: Address - Lot 2 on RP712954

Activity: ERA 16 - Extraction and Screening 1: Dredging, in a year, the following quantity of material (c) more than 100,000t but not more than 1,000,000t
 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
 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
 ERA 60 - Waste disposal 2: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(b) (e) more than 20,000t but not more than 50,000t

Location: Mobile and temporary within the State of Queensland

Activity: ERA 54 - Mechanical waste reprocessing 2: Operating a facility for receiving and mechanically reprocessing, in a year, the following quantity of general waste- (c) more than 10,000t

Part 2: Conditions relevant to all activities carried out under this permit (except ERA 57)	
Agency interest: General	
Condition number	Condition
P2-G1	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur in a manner that may cause environmental harm.
P2-G2	All information and records that are required by the conditions of this environmental authority must be kept for a minimum of five (5) years. Environmental monitoring results must be kept until surrender of this environmental authority. All information and records required by the conditions of this environmental authority must be provided to the administering authority upon request.

P2-G3	An appropriately qualified person(s) must monitor, record and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
P2-G4	All analyses required under this environmental authority must be carried out by a laboratory that has NATA certification, or an equivalent certification, for such analyses. The only exception to this condition is for in situ monitoring.
P2-G5	When required by the administering authority, monitoring must be undertaken in the manner prescribed by the administering authority, to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided to the administering authority upon request.
P2-G6	Maintenance Of Measures, Plant and Equipment The operator of an ERA to which this environmental authority relates must: a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; and 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.
P2-G7	The activity must be undertaken in accordance with written procedures that: a) identify potential risks to the environment from the activity during routine operations, closure and an emergency; b) establish and maintain control measures that minimise the potential for environmental harm; c) ensure plant, equipment and measures are maintained in a proper and effective condition; d) ensure plant, equipment and measures are operated in a proper and effective manner; e) ensure that staff are trained and aware of their obligations under the <i>Environmental Protection Act 1994</i>; and f) ensure that reviews of environmental performance are undertaken at least annually.
P2-G8	All reasonable and practicable measures must be taken to contain litter within the waste operations area, and retrieve litter released.
P2-G9	The activities must not be carried out until you have given financial assurance to the administering authority.
P2-G10	If the administering authority increases the amount of financial assurance you must give the additional financial assurance to the administering authority within 28 days, or such other time as agreed to by the administering authority, of receiving written notice of the increase.
P2-G11	Compliance with the conditions of this environmental authority must be audited at least every two years.
P2-G12	The audit detailed in condition P2-G11 must be conducted by a suitably qualified third party auditor, nominated by the environmental authority holder and accepted by the administering authority.
P2-G13	In relation to the audit required by condition P2-G11, the auditor must submit a final version of the auditor's report to the administering authority within 28 days of completing the audit.
P2-G14	The total financial cost of the audit(s) will be the responsibility of the holder of this environmental authority.
P2-G15	The operator of the activity must record the following details for all complaints received and provide this information to the administering authority on request;

	a) time, date, name and contact details of the complainant; b) reasons for the complainant; c) any investigations undertaken; d) conclusion formed; and e) any actions taken.
P2- G16	All batteries, liquid chemicals, fuels, and other liquid substances with potential to cause environmental harm must be stored within a secondary containment system.
Agency interest: Air	
Condition number	Condition
P2-A1	Odours or airborne contaminants must not cause nuisance to any sensitive place or commercial place.
P2-A2	Dust Control Stockpiles must be maintained using all reasonable and practicable measures necessary to minimise the release of wind blown dust or particulate matter to the atmosphere. Reasonable and practicable measures may include but are not limited to: a) use of waterspray as required during winds likely to generate such releases; b) use of dust-suppressant shielding; c) storage in bunkers; and d) covering with tarpaulins.
P2-A3	The holder of this environmental authority must take all reasonable and practicable measures necessary to prevent spillage and/or loss of particulate matter or windblown dust from trucks used for transporting extracted material from the premises to which this environmental authority relates. The entire load must be covered with a tarpaulin or similar material for the duration of transport. Other, reasonable and practicable measures may include but are not limited to: a) wetting down the load prior to transport; and b) clearing of spillage from side rails, tail gates and draw bars of trucks prior to departure from the premises to which this environmental authority relates and prior to departure from the premises to which this environmental authority relates to which the load has been delivered.
P2-A4	The following materials must not be used for dust suppression purposes: a) leachate or landfill gas condensate; or b) waste oil or other hydrocarbons
P2-A5	Dust and particulate matter emissions must not exceed the following concentrations at any sensitive place or commercial place: a) Dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3580.10.1 (or more recent edition); or b) A concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM₁₀) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, when monitored in accordance with Australian Standard AS 3580.9.6 (or more recent edition) or any other method approved by the administering authority.

Agency interest: Noise																																																												
Condition number	Condition																																																											
P2-N1	Other than as permitted by this environmental authority, noise generated by the activity must not cause an environmental nuisance to any sensitive place or commercial place.																																																											
P2-N2	Noise from the activity must not exceed the levels identified in <i>Table 1 - Noise Limits</i> when measured in accordance with the associated monitoring requirements. Table 1—Noise limits <table><tr><th rowspan="3">Noise level Measured in dB(A)</th><th colspan="3">Monday to Saturday</th><th colspan="3">Sunday and Public Holidays</th></tr><tr><th>7am-6pm</th><th>6pm-10pm</th><th>10pm-7am</th><th>9am-6pm</th><th>6pm-10pm</th><th>10pm-9am</th></tr><tr><th colspan="6">Noise measured at a 'Noise sensitive place'</th></tr><tr><td>LA10, adj, 10min</td><td>50</td><td>45</td><td>35</td><td>50</td><td>45</td><td>35</td></tr><tr><td>LA1, adj, 10min</td><td>55</td><td>50</td><td>40</td><td>55</td><td>50</td><td>40</td></tr><tr><th></th><th colspan="6">Noise measured at a 'Commercial place'</th></tr><tr><td>LA10, adj, 10min</td><td>55</td><td>50</td><td>40</td><td>55</td><td>50</td><td>40</td></tr><tr><td>LA1, adj, 10min</td><td>60</td><td>55</td><td>45</td><td>60</td><td>55</td><td>45</td></tr></table> Associated monitoring requirements 1. All monitoring devices must be correctly calibrated and maintained. 2. Any monitoring must be in accordance with the most recent version of the administering authority's <i>Noise Measurement Manual</i>. 3. Any monitoring of noise emissions from the activity must be undertaken when the activity is in operation. 4. All monitoring must include: - LA 1, adj 10 mins - Background noise (Background) as L A 90, adj T - L A 1, adj 10 mins; - the level and frequency of occurrence of impulsive or tonal noise; - atmospheric conditions including wind speed and direction; - effects due to extraneous factors such as traffic noise; and - location, date and time of recording.						Noise level Measured in dB(A)	Monday to Saturday			Sunday and Public Holidays			7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am	Noise measured at a 'Noise sensitive place'						LA10, adj, 10min	50	45	35	50	45	35	LA1, adj, 10min	55	50	40	55	50	40		Noise measured at a 'Commercial place'						LA10, adj, 10min	55	50	40	55	50	40	LA1, adj, 10min	60	55	45	60	55	45
Noise level Measured in dB(A)	Monday to Saturday			Sunday and Public Holidays																																																								
	7am-6pm	6pm-10pm	10pm-7am	9am-6pm	6pm-10pm	10pm-9am																																																						
	Noise measured at a 'Noise sensitive place'																																																											
LA10, adj, 10min	50	45	35	50	45	35																																																						
LA1, adj, 10min	55	50	40	55	50	40																																																						
	Noise measured at a 'Commercial place'																																																											
LA10, adj, 10min	55	50	40	55	50	40																																																						
LA1, adj, 10min	60	55	45	60	55	45																																																						
P2-N3	Blasting or the generation of substantial low frequency noise is not permitted.																																																											
P2-N4	The activity is not permitted to occur within two-hundred (200) metres of the nearest noise sensitive receptor.																																																											
Agency interest: Water																																																												
Condition number	Condition																																																											
P2-W1	Other than permitted by this environmental authority, contaminants must not be released to any waters, groundwater or the bed and banks of any waters.																																																											

P2-W2	Erosion Protection Measures and Sediment Controls Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment.												
P2-W3	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.												
P2-W4	Suitable banks and/or diversion drains must be installed on site and maintained to exclude uncontaminated stormwater runoff from entering the waste handling, storage, treatment and processing area(s), and other operational areas on site.												
P2-W5	The stormwater runoff from disturbed areas, generated by (up to and including) a 24 hour storm event with an average recurrence interval of 1 in 10 years must be retained on site or managed to remove contaminants before release.												
P2-W6	The controlled release of treated/settled stormwater must be conducted in a way and at a rate that does not cause: a) re-suspension of particles; or b) erosion of bed or banks of receiving waters; or c) landscape damage; or d) ponding of the water; or e) vegetation damage.												
P2-W7	All ponds used for the storage or treatment of acid sulfate soils or other contaminants must be constructed, installed and maintained: a) so as to prevent any release of contaminants through the bed or banks of the pond to any waters (including ground water); b) so that a freeboard of not less than 0.5 metres is maintained at all times; and c) so as to ensure the stability of the ponds' construction.												
P2-W8	Acid sulfate soils must be managed such that contaminants are not directly or indirectly released to any waters.												
P2-W9	Surface water in the Dredge Pond and in North Lake Narelle, East Lake Narelle, South Lake Narelle and West Lake Narelle must be monitored at the locations prescribed in <i>Table 4 - Surface water monitoring points</i> as shown in <i>Appendix D – Monitoring point locations</i> . Table 4 - Surface water monitoring points <table><tr><th>Monitoring point</th><th>Location (GDA94 – Zone 55)</th></tr><tr><td>Dredge Pond</td><td>363644 E - 8136028 N</td></tr><tr><td>North Lake Narelle</td><td>363502 E – 8135954 N</td></tr><tr><td>East Lake Narelle</td><td>364254 E – 8135524 N</td></tr><tr><td>South Lake Narelle</td><td>363925 E – 8135235 N</td></tr><tr><td>West Lake Narelle</td><td>363569 E – 8135573 N</td></tr></table>	Monitoring point	Location (GDA94 – Zone 55)	Dredge Pond	363644 E - 8136028 N	North Lake Narelle	363502 E – 8135954 N	East Lake Narelle	364254 E – 8135524 N	South Lake Narelle	363925 E – 8135235 N	West Lake Narelle	363569 E – 8135573 N
Monitoring point	Location (GDA94 – Zone 55)												
Dredge Pond	363644 E - 8136028 N												
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South Lake Narelle	363925 E – 8135235 N												
West Lake Narelle	363569 E – 8135573 N												
P2-W10	Surface water monitored in accordance with condition P2-W9 must comply with the quality characteristics, limits, and monitoring frequency prescribed in <i>Table 5 - Contaminant limits and monitoring frequency</i> and the associated requirements. Table 5 - Contaminant limits and monitoring frequency <table><tr><th>Quality characteristics</th><th>Limit (see condition P2-W11)</th><th>Limit type</th><th>Monitoring frequency</th></tr></table>	Quality characteristics	Limit (see condition P2-W11)	Limit type	Monitoring frequency								
Quality characteristics	Limit (see condition P2-W11)	Limit type	Monitoring frequency										

	pH	5.0 – 8.0	Range	Weekly in Dredge Pond; Monthly in Lake Narelle
	Electrical conductivity	40,000 µS/cm	Maximum	Weekly in Dredge Pond; Monthly in Lake Narelle
	Dissolved aluminium	0.055 mg/L	Maximum	Monthly; or weekly if pH <6.5
	Dissolved iron	0.3 mg/L	Maximum	Monthly; or weekly if pH <6.5
	Total aluminium	Monitor only		Monthly; or weekly if pH <6.5
	Total iron	Monitor only		Monthly; or weekly if pH <6.5
	Associated requirements			
	- Monitoring must be in accordance with the methods prescribed in the current edition of the Department of Environment and Science <i>Monitoring and Sampling Manual</i>. - Samples must be taken using representative samples. - All determinations must employ analytical practical quantification limits sufficiently low enough to enable comparisons to be made against water quality objectives/limits relevant to the particular water quality characteristic. - Monitoring must be undertaken as per the frequency stated. - All monitoring devices must be correctly calibrated and maintained.			
P2-W11	If any of the quality characteristic limits prescribed in <i>Table 5 – Contaminant limits and monitoring frequency</i> of condition P2-W10 are exceeded on three consecutive monitoring events, an appropriately qualified person(s) must prepare a monitoring report.			
P2-W12	A monitoring report required by condition P2-W11 must be submitted to the administering authority within 14 days of monitoring results becoming available.			
P2-W13	The monitoring report required by condition P2-W11 must include: - A summary of the monitoring data obtained in accordance with the monitoring requirements of condition P2-W10; and - An evaluation/explanation of the data from monitoring, including graphical representations showing relevant limits and trends; and - An outline of actions taken, and proposed to be taken, to minimise the environmental risk from any deficiency identified by the monitoring program.			
P2-W14	A groundwater monitoring system must: - be designed and installed by an appropriately qualified person(s) with experience and qualifications in hydrology and groundwater monitoring; and - be designed with regard to the limits, locations and frequencies listed in <i>Tables 6 and 7</i> of conditions P2-W15 and P2-W16.			
P2-W15	Groundwater must be monitored at the monitoring locations as shown in Appendix D – <i>Monitoring point locations</i> and in accordance with the frequency prescribed in <i>Table 6 - Groundwater monitoring locations and frequency</i> .			
	Table 6 — Groundwater monitoring locations and frequency			
	Location (Monitoring bore reference)	Location (GDA94 – Zone 55)		Monitoring frequency
		Easting	Northing	
	MW100A	363317	8136240	Monthly
	MW100B	363317	8136240	Monthly
	REF1	364120	8135902	Monthly
	REF2	363754	8136090	Monthly
	MW105A	363332	8135961	Monthly

	MW106A	363441	8135565	Monthly																								
	MW107A	363693	8135150	Monthly																								
	MW108A	364055	8135184	Monthly																								
	MW110A	364376	8135446	Monthly																								
	MW114A	364376	8135446	Monthly																								
	RWC*	364032	8135687	Monthly																								
	GW01*	363688	8135712	Monthly																								
	*Monitoring only bores																											
P2-W16	Groundwater monitored in accordance with condition P2-W15 must comply with the quality characteristics and their limits prescribed in <i>Table 7 - Groundwater quality limits</i> and the associated requirements. Table 7—Groundwater quality limits <table><tr><th>Quality characteristics</th><th>Limit (See condition P2-W16)</th><th>Limit type</th></tr><tr><td>pH</td><td>5.0 – 8.0</td><td>Range</td></tr><tr><td>EC (µS/cm)</td><td>12000 for MW100A 36000 for MW100B 7640 for REF1 22790 for REF2 45000 for MW105A 35000 for MW106A 17400 for MW107A 15000 for MW108A 7336 for MW110A 400 for MW114A</td><td>Maximum</td></tr><tr><td>Chemical Oxygen Demand (mg/L)</td><td>180 for all bores</td><td>Maximum</td></tr><tr><td>Total Nitrogen (mg/L)</td><td>6.5 for REF1 2.3 for all other bores</td><td>Maximum</td></tr><tr><td>Total Phosphorus (mg/L)</td><td>1.5</td><td>Maximum</td></tr><tr><td>Chloride (mg/L)</td><td>2700 for MW100A 11850 for MW100B 1500 for REF1 6600 for REF2 15500 for MW105A 12750 for MW106A 4200 for MW107A 4500 for MW108A 1745 for MW110A 74 for MW114A</td><td>Maximum</td></tr><tr><td>Sulfate (mg/L)</td><td>460 for MW100A 20 for REF1 377 for REF2 2200 for MW105A 2000 for MW106A and MW100B 650 for MW107A 464 for MW108A 40 for MW110A 30 for MW114A</td><td>Maximum</td></tr></table>				Quality characteristics	Limit (See condition P2-W16)	Limit type	pH	5.0 – 8.0	Range	EC (µS/cm)	12000 for MW100A 36000 for MW100B 7640 for REF1 22790 for REF2 45000 for MW105A 35000 for MW106A 17400 for MW107A 15000 for MW108A 7336 for MW110A 400 for MW114A	Maximum	Chemical Oxygen Demand (mg/L)	180 for all bores	Maximum	Total Nitrogen (mg/L)	6.5 for REF1 2.3 for all other bores	Maximum	Total Phosphorus (mg/L)	1.5	Maximum	Chloride (mg/L)	2700 for MW100A 11850 for MW100B 1500 for REF1 6600 for REF2 15500 for MW105A 12750 for MW106A 4200 for MW107A 4500 for MW108A 1745 for MW110A 74 for MW114A	Maximum	Sulfate (mg/L)	460 for MW100A 20 for REF1 377 for REF2 2200 for MW105A 2000 for MW106A and MW100B 650 for MW107A 464 for MW108A 40 for MW110A 30 for MW114A	Maximum
Quality characteristics	Limit (See condition P2-W16)	Limit type																										
pH	5.0 – 8.0	Range																										
EC (µS/cm)	12000 for MW100A 36000 for MW100B 7640 for REF1 22790 for REF2 45000 for MW105A 35000 for MW106A 17400 for MW107A 15000 for MW108A 7336 for MW110A 400 for MW114A	Maximum																										
Chemical Oxygen Demand (mg/L)	180 for all bores	Maximum																										
Total Nitrogen (mg/L)	6.5 for REF1 2.3 for all other bores	Maximum																										
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Aluminium (µg/L))	81 for MW100A 100 for MW105A, MW106A, MW100B and REF1 55 for MW107A and MW110A 200 for MW108A and MW114A 24 for REF2	Maximum
Arsenic (µg/L))	10 for all bores	Maximum
Iron (µg/L))	11400 for MW100A 610 for MW100B 86 for REF1 4000 for REF2 14250 for MW105A 26600 for MW106A 8930 for MW107A 1930 for MW108A 1185 for MW110A 4950 for MW114A	Maximum
Cadmium (µg/L)	2	Maximum
Chromium (µg/L)	5.2 for MW110A 4.4 for all other bores	Maximum
Copper (µg/L)	30 for MW105A and MW108A 49 for MW114A 10 for all other bores	Maximum
Lead (µg/L)	3.4	Maximum
Mercury (µg/L)	0.06	Maximum
Zinc (µg/L)	40 for MW110A 15 for all other bores	Maximum
Standing water level (mAHD)	3.22 for MW105A* 1.48 for MW106A* 2.12 for MW107A* 1.91 for MW108A* Monitor only for all other bores	

*Limit only applies if EC > 1700µS/cm

Associated requirements

1. Monitoring must be undertaken any time the activity is in operation.
2. All monitoring devices must be effectively calibrated and maintained in accordance with the manufacturer's instructions.
3. Monitoring must be taken when emissions are expected to be representative of actual operating conditions for the sample frequency period.
4. All groundwater monitoring must be conducted in accordance with the current edition of the administering authority's Monitoring and Sampling Manual. Measurements and recording of standing groundwater levels must be in metres, accurate to 0.1 metre. The elevation of the reference point, relative to Australian Height Datum, for use in any groundwater level measurement must be determined to an accuracy of 0.05 metre.
5. Measurement of groundwater levels must be undertaken prior to any disturbance by sampling, and must be reported as the depth in metres from the established reference point to the water surface within the bore.
6. Each groundwater monitoring bore must be fitted with a locked cap at all times other than when sampling is being undertaken.
7. All determinations of the quality of the groundwater must employ analytical practical quantification limits sufficiently low enough to enable comparisons to be made against water quality objectives/limits relevant to the particular water quality characteristic.

P2-W17	If any of the quality characteristic limits prescribed in <i>Table 7- Groundwater quality limits</i> of condition P2-W16 are exceeded on three consecutive monitoring events, an appropriately qualified person(s) must prepare a monitoring report.
P2-W18	A monitoring report required by condition P2-W17 must be submitted to the administering authority within 14 days of monitoring results becoming available.
P2-W19	The monitoring report required by condition P2-W17 must include: a) A summary of the monitoring data obtained in accordance with the monitoring requirements of condition P2-W15 and P2-W16; and b) An evaluation/explanation of the data from monitoring, including graphical representations showing relevant limits and trends; and c) An outline of actions taken, and proposed to be taken, to minimise the environmental risk from any deficiency identified by the monitoring program.
Agency interest: Land	
Condition number	Condition
P2-L1	All waste handling, storage and processing must only be carried out on a hardstand area(s): a) constructed of compacted clay or other low permeable material to minimise soil infiltration; b) graded to prevent rainwater ponding; c) constructed above the Q10 flood level; d) bunded to contain the materials stored; and e) graded to facilitate collection of wastewaters, leachates and contaminated stormwater runoff.
P2-L2	When the deposition of waste to the landfill unit ceases, a final capping system to the landfill unit must be designed by an appropriately qualified person and installed to minimise: a) infiltration of water into the landfill unit and water ponding on the surface; and b) the likelihood of any erosion occurring to either the final capping system or the landfilled materials. A final capping system is not required where the deposition of waste to a landfill unit ceases temporarily for the purpose of using an alternative working face.
P2-L3	Treatment and management of acid sulfate soils must comply with the current edition of <i>Queensland Acid Sulfate Soil Technical Manual</i> .
P2-L4	Records must be maintained of the depths, location and extent of any passive or active acid sulfate soils (ASS) encountered.

P2-L5	Land that has been disturbed for activities conducted under this environmental authority must be rehabilitated in a manner such that: a) suitable native species of vegetation for the location are established and sustained for earthen surfaces; and b) potential for erosion is minimised; and c) the quality of water, including seepage, released from the site does not cause environmental harm; and d) potential for environmental nuisance caused by dust is minimised; and e) the water quality of any residual water body does not have potential to cause environmental harm; and f) the final landform is stable and protects public safety; and g) the contaminant concentrations within the final capping layer are appropriate for the final land use and in accordance with the latest edition of the 'National Environmental Protection (Assessment of
P2-L6	Rehabilitation of disturbed areas must take place progressively as works are staged and new areas of extraction are commenced.
P2-L7	Existing remnant vegetation along the Barron River and Thomatis Creek must not be disturbed.
P2-L8	A minimum buffer distance of at least eighty (80) metres from the high bank of the Barron River and Thomatis Creek is to be provided and maintained from the extraction area.
P2-L9	Following cessation of deposition of waste in the landfill unit, post-closure care of the landfill unit must be conducted for a period of 30 years or until the administering authority determines, on the basis of correct information, that the landfill unit and surrounding site are stable and that no release of waste materials, leachate, landfill gas or other contaminants that may cause environmental harm is likely.
P2-L10	The program of post-closure care implemented must be effective in preventing and/or minimising the likelihood of environmental harm being caused. The program must include measures to: a) maintain the structural integrity and effectiveness of the final capping system; b) maintain and operate the leachate collection system; and c) maintain the groundwater monitoring system and monitor quality of groundwater at a frequency sufficient to detect any release of contaminants to groundwater.
P2-L11	A site management plan pursuant to Chapter 7, Part 8, Division 3 of the <i>Environmental Protection Act 1994</i> must be developed and provided to the administering authority at least 12 months before the expected final receipt of waste in the landfill unit. The site management plan must include, but is not to be limited to, the future land use and actions intended to taken for compliance with the closure and post-closure care requirements of this approval.

Agency interest: Waste	
Condition number	Condition
P2-WA1	All waste generated in carrying out the activity must be reused, recycled or lawfully transported and disposed of to a facility which can lawfully accept such waste.
Part 3: Specific conditions relevant to ERA 60	
Condition number	Condition
P3-WA1	Activities under this environmental authority must be conducted in accordance with the following limitations: a) The only waste stream that can be received and disposed of within Lot 2 Plan RP712954 is: i. Construction and demolition waste. b) The only waste streams that can be received and disposed of within Lot 5 Plan SP309133 are: i. Construction and demolition waste; and ii. Potential Acid Sulfate Soils (PASS); and iii. Treated Actual Acid Sulfate Soils (AASS); and iv. paper-covered plasterboard, provided that such wastes are generated by construction and demolition activities and delivered to the licensed place as part of a mixed load of materials; and v. waste tyres or parts thereof; and vi. waste asbestos or asbestos-containing material that has been handled in accordance with Public Health Regulation 2005. c) Potential Acid Sulfate Soils (PASS) and treated Actual Acid Sulfate Soils (AASS) must only be disposed of within 'RWC5' and 'RWC6' on Lot 5 Plan SP309133 as depicted in <i>Appendix C – PASS and treated AASS disposal locations on Lot 5 SP309133</i>.

P3-WA2	In addition to condition P3-WA1, the following waste streams must not be permitted to be placed at the landfill facility at any time: a) liquid or semiliquid waste, other than: i. liquid or semi-liquid waste which has been produced in the carrying out of the activity; ii. liquid or semi-liquid waste that is incidental to, and commingled with, the permitted waste streams; b) hot ash; c) material that is smouldering or aflame; d) material containing a substance which is ignitable, corrosive, reactive or toxic material (other than materials containing a toxic substance from domestic premises) unless this material is to be deposited into a dedicated monocell with a written approval of the administering authority, e) all radioactive wastes, unless otherwise approved under the <i>Radiation Safety Act 1999</i> or approved contaminated soil; f) an explosive; g) ammunition, other than ammunition that no longer contains explosives, pyrotechnics or propellants apart from trace residues that are no longer capable of supporting combustion or an explosive reaction; h) Potential Acid Sulfate Soils (PASS) and treated Actual Acid Sulfate Soils (AASS) contaminated with PFAS compounds or any other hazardous contaminant.
P3-WA3	In addition to condition P3-WA1 and P3-WA2 only the following wastes can be temporarily stored on site prior to being taken to another place and disposed of in accordance with the <i>Environmental Protection Act 1994</i>. a) regulated waste removed from mixed loads of wastes, other than those permitted for receipt on site under this environmental authority; and b) metals removed from mixed loads of wastes; and c) sediment removed from the settling pond that is unsuitable for use in the manufacture of soil conditioner.
P3-WA4	A record of all waste must be kept detailing the following information: a) date of pickup of waste; and b) description of waste; and c) cross reference to relevant waste transport documentation; and d) quantity of waste; and e) origin of the waste; and f) destination of the waste not approved for disposal' temporary storage or processing on site; and g) intended fate of the waste, for example, type of waste treatment, reprocessing or disposal. Note: Trackable wastes as listed in Schedule 11 of the Environmental Protection Regulation 2019 are not covered by this condition. Trackable wastes have similar recording requirements to this condition in accordance with a waste tracking system established under the above Regulation.
P3-WA5	At all times while the activity is operating, at least one person must be present who is responsible for the control and operation of the facility and whose duties must include but not be limited to: a) controlling the reception, storage and removal of waste; b) maintaining the facility; c) controlling all employees working in the facility; and d) supervising all persons entering the facility.

P3-WA6	A waste inspection program must be developed for the activity. The waste inspection program must include, but not be limited to, the following: a) preliminary visual inspection of all loads entering the site through the use of elevated mirrors, viewing platforms and video cameras. b) secondary inspection of all loads being disposed of within the waste cell whilst the contractor is present. c) a random waste inspection program must be developed to screen incoming waste loads where 1 in 10 vehicles must be physically inspected. Records of all random waste inspections undertaken must be maintained.
P3-WA7	All wastewaters, leachate or contaminated stormwater runoff from the waste handling, storage, treatment and processing areas on the site must only be discharged to the settling pond.
P3-WA8	Deposited waste must be covered as soon as practicable to limit stormwater infiltration, prevent exposure of waste and prevent issues arising from vectors and pest species.
P3-WA9	Strategic reburial of Potential Acid Sulfate Soils All PASS material must be handled and disposed of as a special burial as follows: a) the areas used for the handling of PASS on the site must be constructed with an effective underlying neutralising guard layer; and b) upon arrival at the site, PASS material must be deposited without delay directly in its permanent reinterment location in the sand extraction/ waste disposal pond; and c) PASS material must be maintained anoxic, preferable anaerobic (reducing) conditions at all times within the sand extraction/waste disposal pond; and d) surveyed maps showing the location, depth and volume of all strategically reburied PASS material within the sand extraction/waste disposal pond must be produced and retained as permanent records; and e) an adequate buffer distance must be maintained between sand extraction activities and waste disposal activities within the sand extraction/waste disposal pond at all times to prevent the disturbance of deposited PASS material.
P3-WA10	Verification Testing of Potential Acid Sulfate Soils. a) The acceptance of PASS material on site must be based on laboratory analysis supplied by the waste generator and verified by you; and b) Any loads of PASS material tested to have a Titratable Actual Acidity (TAA) exceeding 18mol H⁺/tonne and with a pH_{KCl} below 5.5 must not be received at the site; and c) Each load of PASS material must be visually assessed by the site supervisor on arrival on site and must be subject to field pH tests if there is any indication of oxidation within the load.
P3-WA11	Notwithstanding conditions P3-WA12 to P3-WA16, management of PASS and AASS must comply with the latest edition of the <i>Queensland Acid Sulfate Soil Technical Manual (QASSTM)</i> (available on the Queensland Government website).
P3-WA12	An Acid Sulfate Soil (ASS) Environmental Management Plan (EMP) must be developed by an appropriately qualified person and submitted to the administering authority prior to the acceptance of treated AASS and PASS onsite.
P3-WA13	The ASS EMP required by condition P3-WA12, must be developed and implemented by an appropriately qualified person who possesses appropriate qualifications and experience in the field of soil science and contaminated land to be able to competently advise on and assess the potential impacts and risk associated with the disposal of treated AASS and PASS onsite.

P3-WA14	The ASS EMP, as required by condition P3 – WA12, must include but not be limited to the following information: a) Intended volume of soils to be accepted from the project; and b) Testing results from the source site explaining the potential contaminants present within the soils; and c) Procedures for onsite testing, verification and visual inspections for the acceptance of the soils; and d) PASS and treated AASS disposal procedures including the timeframes for disposal within 8-10 hours and depth below lowest permanent water table in accordance with section 9.3.2 and 9.5 of the QASSTM; and e) Any surface water and groundwater monitoring requirements and procedures additional to the requirements conditioned within this environmental authority, including management and mitigation measures to ensure potential impacts are minimised; and f) AASS treatment validation testing procedures in accordance with section 7.2 of the QASSTM; and g) The reuse options for treated AASS and their appropriateness including the potential impacts to the environment.
P3-WA15	PASS and treated AASS must not be disposed of on site, if upon receipt, the following are identified: a) Monosulfidic black ooze (MBO), jarosite or other AASS indicators upon visual inspection; or b) pH is recorded less than 5.5; or c) Titratable Actual Acidity (TAA) exceeds 18 mol H+/ tonne.
P3-WA16	PASS and treated AASS which do not meet the requirements of condition P3-WA15 must be removed immediately to a facility which can lawfully accept such waste.
P3 – WA17	All reasonable and practicable measures must be taken to exclude vectors and pest species to the extent necessary to prevent: a) nuisance to occupiers of neighbouring premises; and b) any danger or risk to the health of any persons.
Asbestos disposal	
P3-WA13	Designated asbestos disposal monocells must be located within the area indicated in Appendix B.
P3-WA14	Waste asbestos and asbestos-containing material must be: a) disposed to a designated asbestos-only monocell(s) where the base of the monocell is no deeper than two (2) metres above groundwater; b) contained at a minimum distance of two (2) metres from the surface and flanks of the monocell, excluding any final cover system (where final designated asbestos landfill unit means that deposition to the landfill unit has ceased); c) placed at the bottom of the working face in the designated asbestos monocell and immediately covered with a minimum of 200mm of consolidated earth or equivalent cover material; d) compacted in such a way that prevents rupture of the packaging; and e) confined to a designated asbestos monocell where no excavation takes place following the initial disposal of asbestos waste within that monocell.

P3-WA15	All reasonable and practicable measures must be taken to prevent groundwater, surface water and stormwater ingress into the asbestos monocell(s).
P3-WA16	The accurate location (accuracy not less than 0.5 metre for depth and area coordinates) for each load of the deposited asbestos must be recorded.
P3-WA17	Records required to be kept in relation to the deposition of asbestos waste must be kept for the post closure care period.
Part 4: Specific conditions relevant only to ERA 53	
Agency interest: General	
Condition number	Condition
P4-G1	Only the following wastes can be temporarily stored on site prior to use in the processing of soil conditioner: a) composted chicken manure, provided that the volume temporarily stored on site at any one time is less than fifty (50) cubic metres; and b) mill mud, provided that the volume temporarily stored on site at any one time is less than one hundred (100) cubic metres.
P4-G2	Green waste can be temporarily stored on site prior to use in the processing of soil conditioner or composting, provided that the volume temporarily stored on site at any one time is less than ten thousand (10,000) cubic metres
P4-G3	Composting activities may only be undertaken using green waste as feedstock
P4-G4	An area which provides an impervious barrier to subsoil and groundwater must be used for: a) receiving, mixing and storing processing materials for the activity b) collecting and storing leachate.
P4-G5	The volume of soil conditioner product stored on site at any one time must be less than five hundred (500) cubic metres
P4-G6	Stockpiles of soil conditioner product must not be allowed to turn anaerobic (including post rainfall events)
P4-G7	Stockpiles of wastes used in the processing of soil conditioner must not be allowed to turn anaerobic (including post rainfall events).
P4-G8	All reasonable and practicable measures must be taken to exclude vectors and pest species to the extent necessary to prevent: a) environmental nuisance to occupiers of neighbouring premises; b) any danger or risk to the health of any persons.

Part 5: Conditions relevant to ERA 16 and ERA 60 activities carried out on Lot 2 RP712954																								
Agency interest: General																								
Condition number	Condition																							
P5-G1	Activities conducted under this environmental authority must not be conducted contrary to any of the following limitations: a) The only area permitted to be disturbed by extractive activities under this approval is limited to the area bound by the GPS coordinates outlined in <i>Table 8 - Coordinates of boundaries of extraction area on Lot 2 Plan RP712954</i>. b) The only area where waste is permitted to be disposed of under this approval is limited to the area bound by the GPS coordinates outlined in <i>Table 8 - Coordinates of boundaries of extraction area on Lot 2 Plan RP712954</i>. c) Waste must only be disposed of within the void of the extraction area and are limited to those waste types identified in condition P3-WA1. Table 8 - Coordinates of boundaries of extraction area on Lot 2 Plan RP712954 <table><tr><th>Site</th><th>Site ID</th><th>Latitude</th><th>Longitude</th></tr><tr><td>North-west corner</td><td>A</td><td>-16°51' 10.63"</td><td>145°43' 03.87"</td></tr><tr><td>North-east corner</td><td>B</td><td>-16°51' 15.06"</td><td>145°43' 11.60"</td></tr><tr><td>South-east corner</td><td>C</td><td>-16°51' 28.46"</td><td>145°43' 10.12"</td></tr><tr><td>South-west corner</td><td>D</td><td>-16°51' 29.38"</td><td>145°43' 05.80"</td></tr></table>				Site	Site ID	Latitude	Longitude	North-west corner	A	-16°51' 10.63"	145°43' 03.87"	North-east corner	B	-16°51' 15.06"	145°43' 11.60"	South-east corner	C	-16°51' 28.46"	145°43' 10.12"	South-west corner	D	-16°51' 29.38"	145°43' 05.80"
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P5-G2	The area for screening activities must not be undertaken on Lot 2 on RP712954 and is to be within the boundaries outlined in Appendix A.																							
P5-G3	The maximum amount of material to be removed per year is 130,000 tonnes.																							
Agency interest: Waste																								
Condition number	Condition																							
P5-WA1	Waste water from Lot 2 RP712954 is authorised to be transported and used at the process plant on Lot 5 SP309133.																							
P5-WA2	Waste water from Lot 2 RP712954 must not be discharged to watercourses.																							

Definitions

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

Actual Acid Sulfate Soil (AASS) means soils containing highly acidic soil horizons resulting from the aeration of soil materials that are rich in iron sulfides, primarily pyrite. This oxidation produces hydrogen ions in excess of the sediment's capacity to neutralise the acidity, resulting in soils of pH 4 or less. These soils can usually be identified by the presence of jarosite.

Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

Administering authority means the Department of Environment and Science or its successor or predecessors.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis to performance relative to the subject matter using the relevant protocols, standards, methods or literature.

Approval means an environmental authority under the *Environmental Protection Act 1994*.

Background means noise, measured in the absence of the noise under investigation, as L A90,T being the A-weighted sound pressure level exceeded for 90 per cent of the time period of not less than 15 minutes, using Fast response.

Blasting is the use of explosives to fracture:

- rock, coal and other minerals for later recovery; or
- structural components or other items to facilitate removal from a site or for reuse.

Commercial place means 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.

Construction and demolition waste means

1. masonry and rubble waste including bricks, pavers and ceramics; and
2. concrete (including embedded steel reinforcing rods).

Financial assurance as defined in Chapter 5 of the *Environmental Protection Act 1994*.

Groundwater means water that occurs naturally in, or is introduced artificially into, an aquifer.

Groundwater monitoring system means a system of groundwater monitoring devices, such as monitoring bores, used to provide data in respect to the level and quality of groundwater in the uppermost aquifer where the location of the groundwater monitoring devices is such that comparisons of groundwater quality and groundwater level can be made between groundwater flowing from beneath the site (down-gradient flow) of the **activity** and groundwater flowing towards the site of the **activity** (up-gradient flow).

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.

L_A 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.

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

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

Landfill unit means a discrete area of land or an excavation that receives solid waste.

Landfill facility means land and structures at the site approved used for the disposal of solid waste.

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 at the site that contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

Liquid means any substance that:

1. has an angle of repose of less than five degrees; or
2. becomes free flowing at or below 60 degrees Celsius or when it is transported; or
3. is not generally capable of being picked up by a spade or shovel.

Measures has the broadest interpretation and includes plant, equipment, physical objects, bunding, containment systems, monitoring, procedures, actions, directions and competency.

mg/L means milligrams per litre.

Monosulfidic black ooze (MBO) means amorphous gels that form in the base of low-flow surface water bodies in acid sulfate soil-influenced environments. MBOs contain high concentrations of iron monosulfide minerals (general formula FeS). These minerals are highly reactive in the presence of oxygen, breaking down in minutes to produce free iron and acidity. Monosulfidic black oozes may sometimes be referred to as iron monosulfides, monosulfides or acid volatile sulfides. MBO formation is often a precursor to biogenic pyrite formation, and thus formation of ASS.

NATA means National Association of Testing Authorities.

Potential Acid Sulfate Soil (PASS) means soils that contain iron sulfides or sulfidic material, which have not been exposed to air and so have not oxidised. The field pH of these soils in their undisturbed state is pH 4 or more and may be neutral or slightly alkaline. PASS will generate iron and sulfuric acid when exposed to air.

Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

Release of a contaminant into the environment means to:

1. deposit, discharge, emit or disturb the contaminant; and
2. cause or allow the contaminant to be deposited, discharged, emitted or disturbed; and
3. fail to prevent the contaminant from being deposited, discharged emitted or disturbed; and
4. allow the contaminant to escape; and
5. fail to prevent the contaminant from escaping.

Secondary containment system means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to land, groundwater, or surface waters.

Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the Nature Conservation Act 1992, the Marine Parks Act 2004 or a World Heritage Area; or
6. a public thoroughfare, park or gardens; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.

Substantial low frequency noise means a noise emission that has an unbalanced frequency spectrum shown in a one-third octave band measurement, with a predominant component within the frequency range 10 to 200Hz. It includes any noise emission likely to cause an overall sound pressure level at a sensitive place exceeding 55dB(Z).

Titrateable Actual Acidity (TAA) means the acidity measured by titration to pH 6.5 with dilute sodium hydroxide (NaOH) following extraction from the soil with potassium chloride (KCl) solution. In an ASS context, this test is the operational definition of Actual Acidity.

Toxic material means:

1. cytotoxic wastes; and
2. drugs and poisons as cited in the Standards for Uniform Scheduling of Drugs and Poisons (Schedules 8 and 9 drugs as per the Poisons (Health and Drugs) Regulation 1996).

Treated Actual Acid Sulfate Soil (AASS) means AASS that has been fully treated with a neutralising agent and verified in accordance with the Queensland Acid Sulfate Soil Technical Manual (Soil Management Guidelines v5.1 or current version).

Waste operations area means the following areas:

1. waste receiving
2. sorting
3. treating
4. recycling
5. disposal.

Watercourse means a river, creek or stream in which water flows permanently or intermittently-

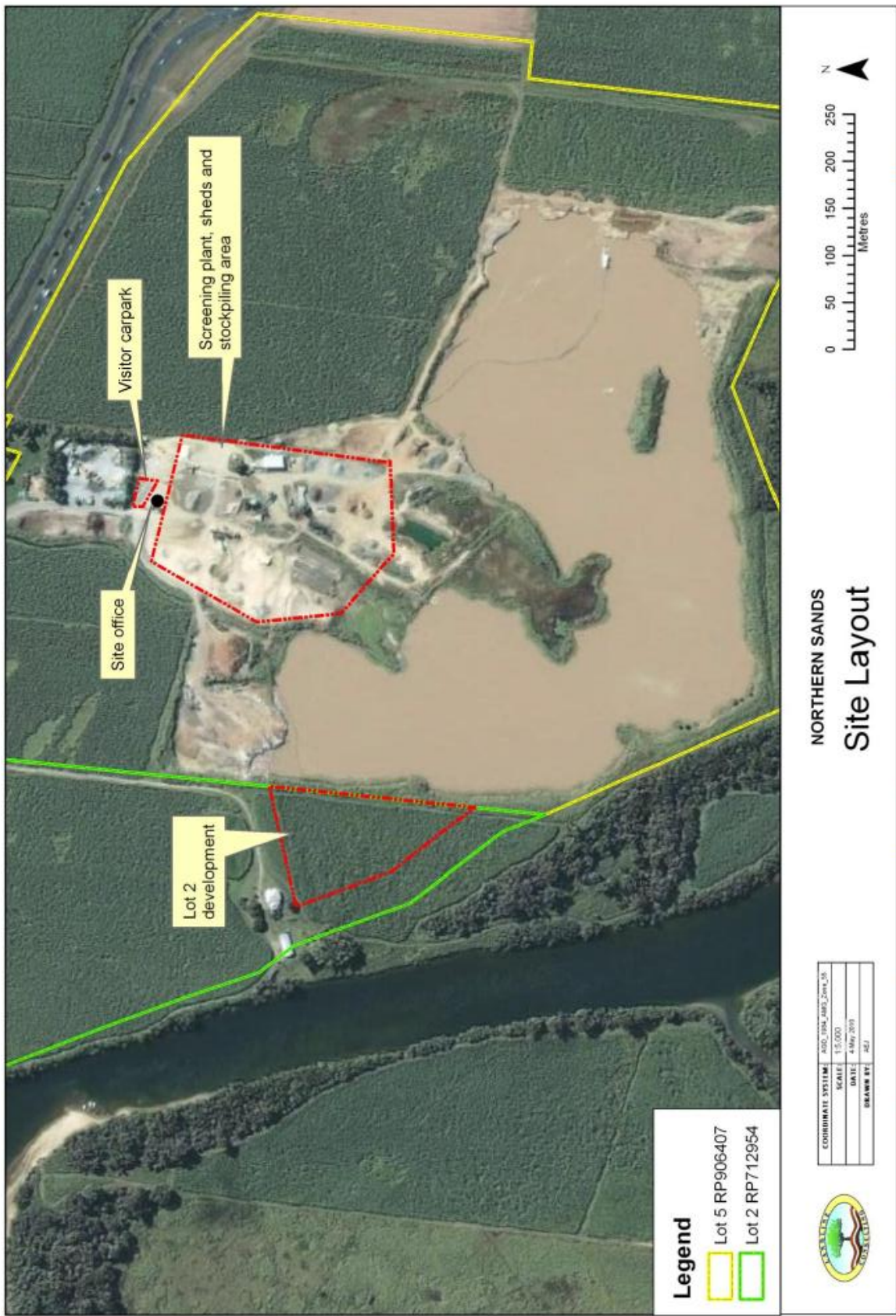
- in a natural channel, whether artificially improved or not; or
- in an artificial channel that has changed the course of the watercourse.

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

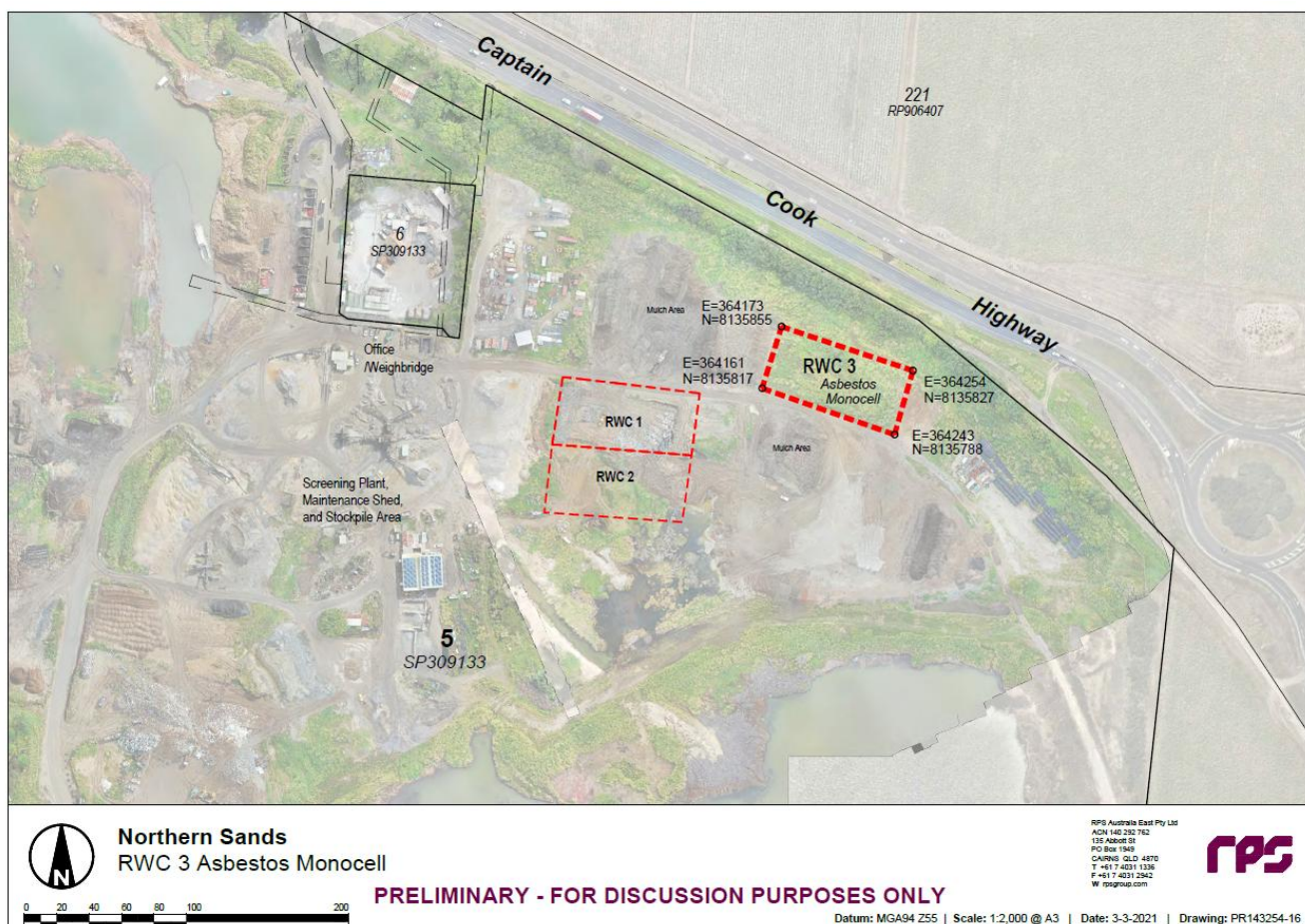
24 hour storm event with an average recurrence interval of 1 in 10 years means the maximum rainfall depth from a 24 hour duration precipitation event with an average recurrence interval of once in 10 years. *For example, an Intensity-Frequency-Duration table for a 24 hour duration event with an average recurrence interval of 1 in 10 years, identifies a rainfall intensity of 8.2mm/hour. The rainfall depth for this event is therefore 24 hour x 8.2mm/hour = 196.8mm.*

Appendix A – Screening activity location on Lot 5 SP309133

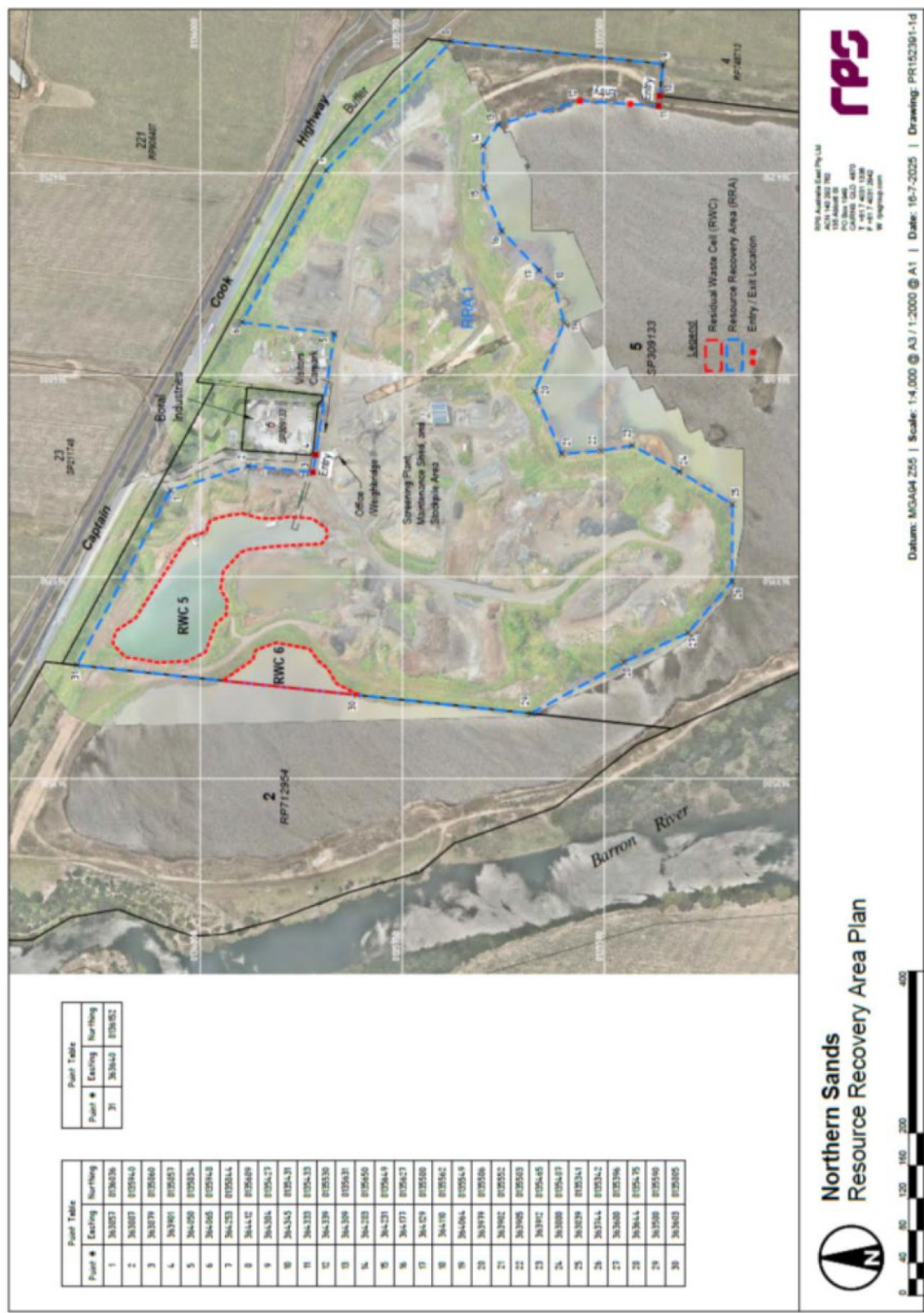


Map 2. Location of the Lot 2 development together with the layout of the existing Northern Sands Project on Lot 5, RP906407.

Appendix B - Asbestos monocell location on Lot 5 SP309133



Appendix C – PASS and treated AASS disposal locations on Lot 5 SP309133



**Northern Sands
Monitoring Point Locations**

0 60 120 180 240 300 360

Project Details:
 Northern Sands
 140 322 762
 PO Box 688
 Cairns QLD 4870
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 W www.northern-sands.com.au

Date: 15-3-2021 | **Scale:** 1:6,000 @ A3 | **Drawing:** PR143254-15b

Department of the Environment, Tourism, Science and Innovation