Permit

Environmental Protection Act 1994

Environmental authority EA0002264

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

Environmental authority number: EA0002264

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

The anniversary date of this environmental authority will remain 1 June. The payment of the annual fee will be due each year on this day.

Environmental authority holder

Name	Registered address
Hi-Quality Waste Treatment Services Pty Ltd	12 Byte Street, Yatala QLD 4207

Environmentally relevant activity and location details

Environmentally relevant activities	Location
ERA 54 -2(c) Operating a facility for receiving and mechanically reprocessing, in a year, more than 10,000t of general waste ERA 54 -3(c) Operating a facility for receiving and mechanically reprocessing, in a year, more than 10,000t of category 2 regulated waste ERA 54 -4(c) Operating a facility for receiving and mechanically reprocessing, in a year, more than 10,000t of category 1 regulated waste ERA 55 -2(c) Operating a facility for receiving and either reprocessing or treating, in a year, more than 10,000t of category 2 regulated waste ERA 55 -3(c) Operating a facility for receiving, and reprocessing or treating, in a year more than 10,000 t of category 1 regulated waste ERA 62 -1(b) operating a facility for receiving and sorting, dismantling, baling or temporarily storing general waste	12 Byte Street, Yatala QLD 4207 - Lot 513 WD6565

ABN 46 640 294 485

Environmentally relevant activities	Location
ERA 62 -1(c) operating a facility for receiving and sorting, dismantling baling or temporarily storing category 2 regulated waste ERA 62 -1(d) operating a facility for receiving and sorting, dismantling, baling or temporarily storing category 1 regulated waste	
ERA 57 Regulated waste transport	Mobile and temporary within the State of Queensland

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).

Mobile and temporary activities

If you operate a mobile and temporary environmentally relevant activity (ERA), other than regulated waste transport, you are required to maintain a work diary. You must:

- use the approved form for a work diary (ESR/2015/1696);
- keep the work diary records for 2 years after the last entry;
- inform the administering authority within 7 days of the work diary being lost or stolen;
- record the information required in the work diary for each location within 1 day of leaving the location.

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 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, 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.

The anniversary day of this environmental authority is the same day each year as the effective date. The payment of the annual fee will be due each year on this day.

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.

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)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. 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 Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access State controlled roads), the Department of Resources (to clear vegetation), and the Department of Agriculture and Fisheries (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 environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of

this environmental authority is attached to a development approval, it is for information only, and may not be current. Please contact the Department of Environment, Science and Innovation to ensure that you have the most current version of the environmental authority relating to this site.

	23 April 2025
Signature	Date

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

Enquiries:
Waste Assessment
Department of the Environment, Tourism, Science and Innovation
Phone: 1300 130 372
Email: palm@des.qld.gov.au

Conditions of environmental authority

Part 1 – Site specific conditions for activities at 12 Byte Street, Yatala QLD 4207

Location: 12 Byte Street, Yatala QLD 4207 (Lot 513 Plan WD6565)

Relevant Activities:

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

ERA 54 -3(c) Operating a facility for receiving and mechanically reprocessing, in a year, more than 10,000t of category 2 regulated waste

ERA 54 -4(c) Operating a facility for receiving and mechanically reprocessing, in a year, more than 10,000t of category 1 regulated waste

ERA 55 -2(c) Operating a facility for receiving and either reprocessing or treating, in a year, more than 10,000t of category 2 regulated waste

ERA 55 -3(c) Operating a facility for receiving, and reprocessing or treating, in a year more than 10,000 t of category 1 regulated waste

ERA 62 -1(b) operating a facility for receiving and sorting, dismantling, baling or temporarily storing general waste

ERA 62 -1(c) operating a facility for receiving and storing, dismantling baling or temporarily storing category 2 regulated waste

ERA 62 -1(d) operating a facility for receiving and sorting, dismantling, baling or temporarily storing category 1 regulated waste

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

Agency interest: General	
Condition number	**Condition**
G1	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.
G2	Activities under this environmental authority must be conducted in accordance with the following limitation: a) Putrescible waste must not be accepted.
G3	All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused, or likely to be caused, by the activities.
G4	Written procedures must be developed and documented that: a) identify all potential risks to the environment from the activity, including during and outside routine operations, during closure and in an emergency; and b) identify measures to prevent or minimise the potential for environmental harm for each of the potential risks identified; and

	c) establish sampling and analysis procedures for incoming wastes in accordance with the waste sampling protocol; and d) establish an inspection and maintenance program for plant and equipment including calibration and servicing that is in accordance with manufacturer's instructions; and e) establish a staff training program on obligations under this environmental authority and the *Environmental Protection Act 1994* to be conducted as part of staff inductions and at least annually; and f) establish processes to review environmental risks, incidents, performance and complaints.
G5	Written procedures required by condition G4 must be: a) implemented; and b) reviewed at least annually; and c) provided to the administering authority upon request at the time and in the format requested.
G6	For plant and equipment, all measures necessary to comply with the conditions of this environmental authority must be: a) installed, operated and maintained in a proper and effective manner; and b) in accordance with condition G4.
G7	Sampling and analysis procedures for incoming waste required by condition G4 must include at least one representative sample from every bulk load of waste accepted at the facility.
G8	Samples taken in accordance with condition G7 must be labelled with the date and identification number, and be cross referenced with the relevant waste transport documentation.
G9	Samples taken in accordance with condition G7 must be retained for at least one month from the date of acceptance of the waste and be available for examination by an authorised person.
G10	All records must be kept for a period of at least five years and provided to the administering authority upon request.
G11	Chemicals, wastes and fuels in containers of greater than 15 litres must be stored within a secondary containment system.
G12	The secondary containment system for all PFAS waste storage areas as required by condition G11, must have capacity of least 25% of the maximum design storage volume within the containment system.
G13	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analyses. The only exception to this condition is for initial bench scale testing of incoming waste to confirm treatment methodology.
G14	All testing and monitoring required by the conditions of this environmental authority: a) must be carried out in the manner specified by this environmental authority; and b) must be carried out on samples that are representative of the material being tested; and c) must be carried out using monitoring devices that are calibrated and maintained according to the manufacturers' specifications; and d) must be carried out, interpreted and recorded by and appropriately qualified person; and e) for PFAS monitoring, must:

	a. use analysis techniques that achieve lowest practicable limits of reporting (LOR <0.5 µg/kg solids and LOR <0.001 µg/L for liquids, unless specified by other conditions within the environmental authority) and maximise extraction of PFAS from samples; and b. comply with recommendations for sampling and analysis in the PFAS National Environmental Management Plan (NEMP) Version 2.0 or more recent editions adopted by the Queensland Government; and c. all samples must incorporate paired standard and Total Oxidisable Precursor Assay (TOPA) analysis to determine PFAS concentrations for at least: i. Perfluoroalkyl carboxylic acids (C4-C14); and ii. Perfluoroalkyl sulfonic acids (C4-C10); and iii. Perfluoroalkane sulfonamides (C8); and iv. Perfluoroalkane sulfonamido acetic acids (FOSAA/FASAAs) (C8 perfluoro); and v. N-alkyl perfluoroalkane sulfonamido acetic acids (MeFASAAs, EtFASAAs) (C8 perfluoro); and vi. n:2 Fluorotelomer sulfonic acids (n= 4, 6, 8 & 10); and d. incorporate quality assurance checks for TOPA; and e. total organic fluorine (TOF) content, extractable in solids and absorbable in liquids; and f. for any waste that may include landfill leachate, include 3:3 and 5:3 fluorotelomer carboxylic acid; and g. for any waste that may include hydraulic fluid, include perfluoroethylcyclohexanesulfonate (PFECHS); and h. where present in phase separated liquid waste, include analysis of PFAS content in both phases; and i. give due regard to any advice from the administering authority concerning improvements in analysis techniques for the waste types accepted.
G15	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.
G16	An annual monitoring report must be prepared by an appropriately qualified person(s) and submitted to the administering authority on the anniversary date of this environmental authority each year. The annual monitoring report must include: a) A summary of the previous 12 months monitoring data obtained in accordance with any of the monitoring requirements of this environmental authority; and b) An evaluation/explanation of the data from any monitoring programs, including graphical representations showing relevant limits and trends against all historical data; and c) An outline of action taken, and proposed to be taken, to minimise the environmental risk from any deficiency identified by the monitoring or recording programs.
G17	The activity must not be carried out until you have given financial assurance to the administering authority.
G18	If the administering authority increases the amount of financial assurance**,** you must give the additional financial assurance to the administering authority within 28 days of receiving written

	notice of the increase.
Agency interest: Waste	
W1	All waste generated in carrying out the activity must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.
W2	Incompatible wastes must not be mixed in the same container or waste storage area.
W3	Waste being treated must be lawfully treated to render it less hazardous and be fit for its intended use or disposal.
W4	Only regulated wastes listed in *Appendix 1 - Approved regulated wastes* may be accepted in accordance with the acceptance criteria, storage, treatment, and treatment timeframes.
W5	Packaged waste must be stored in the 'proposed awning' area or within the enclosed buildings, as depicted in *Appendix 2 – Site plan.*
W6	The following wastes, defined in *Appendix 1 - Approved regulated wastes*, must be stored in bulk liquid storage tanks within the 'proposed tank farm', 'Acid Tank Farm' and 'Caustic Tank Farm' areas or in sealed containers within the enclosed buildings, as depicted in *Appendix 2- Site plan;* i. M270; ii. J120; iii. B100; and iv. C100.
W7	Waste not mentioned in W5 or W6 must be loaded, unloaded and stored in an enclosed building at all times and in accordance with *Appendix 2 – Site plan.*
W8	All treatment of waste must be undertaken in an enclosed building at all times and in accordance with *Appendix 2 – Site plan.*
W9	Waste containing PFAS must be stored within a fully enclosed container or in accordance with condition W6, unless it is accepted for treatment in accordance with PFAS treatment conditions T1-T20.
W10	Building 1, Building 2 and Building 3, as depicted in *Appendix 2- Site plan*, must be operated under negative pressure with roller doors closed during waste loading, unloading and treatment operations.
W11	Waste sludge must be stored in appropriately lined pits in Building 1 as shown in *Appendix 2 – Site plan*.
W12	The 'proposed awning', 'proposed tank farm', 'Acid Tank Farm' and 'Caustic Tank Farm' areas, as mentioned in condition W5 and condition W6 respectively, must be bunded with concrete roll kerbing and sealed with epoxy.
W13	Records of all waste accepted must be kept, maintained and include the following: a) Time and date of acceptance; and b) Identifying label number and origin of waste load; and c) Net weight of waste; and

<table>
<tr><td></td><td>d) Cross reference to relevant waste transport documentation; and
e) Source/supplier of waste and name of transport contractor where applicable; and
f) Type of waste; and
g) Results of analysis undertaken by the waste generator prior to acceptance that effectively characterises the contaminant concentrations; and
h) Results of analysis required by conditions of this environmental authority; and
i) Time and date of process; and.
j) Method of waste treatment, reprocessing, transfer or disposal used (where applicable).</td></tr>
<tr><td>W14</td><td>Regulated waste must not be accepted, stored, reprocessed, or treated until it has been sampled and analysed in accordance with the waste sampling protocol required by condition G4.</td></tr>
<tr><td colspan="2">Agency interest: Acoustic</td></tr>
<tr><td>N1</td><td>Other than as permitted within this environmental authority, noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place.</td></tr>
<tr><td>N2</td><td>Noise from the activity must not include substantial low frequency noise components and must not exceed the levels identified in Table 1 – Noise limits and the associated requirements at any nuisance sensitive place or commercial place.
Table 1 – Noise limits
<table>
<tr><th rowspan="2">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="7">Noise measured at the nearest sensitive place</th></tr>
<tr><td>$L_{Aeq\ adj,\ 1\ hr}$</td><td>Background + 3</td><td>Background + 3</td><td>Background + 0</td><td>Background + 3</td><td>Background + 3</td><td>Background + 0</td></tr>
<tr><td>$L_{Amax\ ,\ 1\ hr}$</td><td>-</td><td>-</td><td>47 dB(A)</td><td>-</td><td>-</td><td>47 dB(A)</td></tr>
<tr><th colspan="7">Noise measured at a commercial place</th></tr>
<tr><td>$L_{Aeq\ adj,\ 1\ hr}$</td><td>Background + 5</td><td>Background + 5</td><td>Background + 5</td><td>Background + 5</td><td>Background + 5</td><td>Background + 5</td></tr>
</table>
Associated requirements
1. All monitoring devices must be calibrated and maintained according to the manufacturer’s instruction manual.
2. Any monitoring must be in accordance with the most recent version of the administering authority’s Noise Measurement Manual.
3. Any monitoring of noise emissions from the activity must be undertaken when the activity is in operation.
4. Monitoring must include:
a. $L_{Aeq,\ adj,\ T}$;
b. Background noise (Background) as $L_{A90,\ adj,\ T}$;
c. $MaxL_{pA,\ T}$;
d. The level and frequency of occurrence of any impulsive or tonal noise;
e. Atmospheric conditions including wind speed and direction;
f. Effects due to extraneous factors such as traffic noise; and
g. Location, date and time of recording.
5. All monitoring must be performed by an appropriately qualitied person(s).</td></tr>
</table>

Agency interest: Air

A1

Other than as permitted within this environmental authority, odours or airborne contaminants must not cause environmental nuisance to any sensitive place or commercial place.

A2

Contaminants must only be released to air from the point source in accordance with *Table 2 – Point source air release limits* and the associated requirements.

Table 2 – Point source air release limits

Release point	Minimum release height above ground (m)	Minimum velocity at the sampling point (m/sec)	Contaminant	Maximum release limit at the sampling point	Monitoring Frequency
Strobic fan stack serving Buildings 1 and 2	5.25	3	Total solid particulates (TSP)	50 mg/Nm^3 (dry) and 0.315 g/sec	All stacks must be monitored for the contaminants within three months of commissioning of the facility and six monthly thereafter.
			Volatile organic compounds (as n-propane equivalent)	40 mg/Nm^3 (dry) and 0.250 g/sec	
			Total heavy metals (*Note 1*)	1 mg/Nm^3 (dry) and 0.006 g/sec	
Strobic fan stack serving Building 3	6	3	Total solid particulates (TSP)	50 mg/Nm^3 (dry) and 0.535 g/sec	
			Volatile organic compounds (as n-propane equivalent)	40 mg/Nm^3 (dry) and 0.427 g/sec	
			Total heavy metals (*Note 1*)	1 mg/Nm^3 (dry) and 0.011 g/sec	

Note 1: Total heavy metals limit is for the total of the following heavy metals:

(a) The elements antimony, arsenic, cadmium, lead, mercury, beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium, or any compound containing one or more of those elements.

Associated requirements

a) The release of contaminants from a point source must be directed vertically upwards without any impedance or hindrance.

b) Monitoring must be undertaken during a release and at the authorised release points, frequency and for the contaminants specified in *Table 2 – Point source air release limits*.

	c) Monitoring must be undertaken when emissions are expected to be representative of actual operating conditions for the sample period. d) All monitoring devices must be effectively calibrated and maintained in accordance with the manufacturer's instructions and Australian and international standards. e) Air monitoring must be in accordance with the current edition of the administering authority's *Air Quality Sampling Manual*. If monitoring requirements are not described in the *Air Quality Sampling Manual*, monitoring protocols must be in accordance with methods as approved by New South Wales Environment Protection Authority, Victorian Environment Protection Authority or United States Environmental Protection Agency. f) Monitoring provisions for the release point (at the sampling point) listed in *Table 2* must comply with the Australian Standard AS 4323.1 – 1995 "Stationary source emissions Method 1: Selection of sampling positions". g) All air emission stack monitoring must be conducted by an experienced person or body which holds current National Association of Testing Authorities (NATA). h) The following tests must be performed for each required determination specified in *Table 2*: a. Gas velocity and volume flow rate; b. Temperature; and c. Water vapour concentration. i) During the sampling period the following additional information must be gathered: a. Plant throughput rate at the time of sampling; b. Any typical factors that may influence air pollutant emissions; and c. Reference to the actual test methods and accuracy.
A3	Pollution control measures to treat contaminants released to air in condition A2 must include: a) A two stage filtering device: i. Stage 1 – Particulate matter filters to remove 99% PM_{10}; and ii. Stage 2 - Activated carbon filters to remove Volatile Organic Compounds (VOC). b) Two strobic fans to treat discharge of flue gases after the filtering device: i. Strobic fan 1 – must service Building 3 (Type EF-2); and ii. Strobic fan 2 - must service Buildings 1 and 2 (Type EF-1). **Associated requirements** 1. The activated carbon filter(s) must be replaced when it is saturated with the VOCs and efficiency is reduced below the manufacturer's specification. 2. The activated carbon filter(s) and particulate filter(s) must be maintained as specified in the manufacturer's specifications and in a manner to prevent or minimise the release of contaminants to the atmosphere.
A4	The particulate matter filter(s) must have a monitoring system including an alarm (visual and audible) installed and operated to alert of any filter medium breakthrough.
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 editions), or b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM_{10}) 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 editions) or any other method approved by the administering authority.

A6	Dust suppression system such as misters must be used within the buildings to reduce the production of fugitive dust during waste loading, unloading and treatment.
A7	The bulk liquid storage tanks located in the 'proposed tank farm' area, as depicted in *Appendix 2- Site plan*, must be fitted with activated carbon filters.
Agency interest: Land	
L1	Contaminants must not be released to land**.**
L2	Before applying to surrender this environmental authority, the site must be rehabilitated to achieve a safe, stable, non-polluting landform.
Agency interest: Water	
WT1	Other than as permitted within this environmental authority, contaminants must not be released to any waters.
WT2	Stormwater must be managed on site to: a) prevent stormwater from being contaminated by the activity and divert clean stormwater away from contaminated stormwater catchments; AND b) direct any contaminated stormwater to stormwater treatment devices prior to release to any waters; OR c) retain contaminated stormwater and either direct it to the onsite wastewater treatment system as defined in condition T2 for subsequent trade waste discharge or transport it offsite to a facility that can lawfully accept the contaminated stormwater.
WT3	Suitable diversion drains, embankments or bunding must be constructed and maintained to divert all stormwater generated offsite away from Lot 513 WD6565.
WT4	Contaminants must not be released to waters unless the contaminants being released: a) are only released from the release point SW02, depicted in Appendix 3; and b) comply with the release limits (limit and type) at SW02 for each quality characteristic specified in *Table 3- Contaminant release limits to water*; and c) are monitored at the monitoring locations SW01 and SW02, depicted in Appendix 3, at the monitoring frequency for each quality characteristic specified in Table 3- *Contaminant release limits to water.*

Table 3- Contaminant release limits to water

Contaminant	Release limit	Limit Type	Monitoring requirement
TPH C6-69	50 µg/L	maximum	Monthly when releasing
TPH C10-C14	100 µg/L	maximum	
TPH C15-C28	200 µg/L	maximum	
TPH C29-C36	100µg/L	maximum	
Total Suspended Solids (TSS)	30 mg/L	maximum	
pH	6.5-8.5	range	
Electrical Conductivity (EC)	500 µs/cm^3	maximum	
Dissolved Oxygen (DO)	6mg/L	minimum	
Perfluoroalkyl Sulfonic Acids			
Perfluorobutane sulfonic acid (PFBS)	< LOR of 0.001 µg/L	maximum	
Perfluoropentane sulfonic acid (PFPeS)			
Perfluorohexane sulfonic acid (PFHxS)			
Perfluoroheptane sulfonic acid (PFHpS)			
Perfluorooctane sulfonic acid (PFOS)			
Perfluorodecane sulfonic acid (PFDS)			
Perfluoroalkyl Carboxylic Acids			
Perfluorobutanoic acid (PFBA)	< LOR of 0.005 µg/L	maximum	
Perfluoropentanoic acid (PFPeA)	< LOR of 0.001 µg/L		
Perfluorohexanoic acid (PFHxA)			
Perfluoroheptanoic acid (PFHpA)			
Perfluorooctanoic acid (PFOA)			
Perfluorononanoic acid (PFNA)			
Perfluorodecanoic acid (PFDA)			
Perfluoroundecanoic acid (PFUnDA)			
Perfluorododecanoic acid (PFDoDA)			
Perfluorotridecanoic acid (PFTrDA)			
Perfluorotetradecanoic acid (PFTeDA)			
Perfluoroalkyl Sulfonamides			
Perfluorooctane sulfonamide (FOSA)	< LOR of 0.005	maximum	

	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L		
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)			
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)			
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)			
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)			
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)			
	(n:2) Fluorotelomer Sulfonic Acids			
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	< LOR of 0.001 µg/L	maximum	
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	< LOR of 0.005 µg/L		
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	< LOR of 0.001 µg/L		
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	< LOR of 0.001 µg/L		
	Indictaor of spillage (see associated requirement 8)			

Associated requirements

1. Monitoring locations must be in accordance with *Appendix 3 – Monitoring locations*.
2. Monitoring must be in accordance with the methods prescribed in the current edition of administering authority's *Monitoring and Sampling Manual*.
3. Monitoring must be undertaken by an appropriately qualified person.
4. Samples must be taken using representative samples.
5. 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.
6. Monitoring must be undertaken in the event of a release as per the frequency stated.
7. All monitoring devices must be correctly calibrated and maintained.
8. If a waste or chemical containing a different contaminant than specifically listed in Table 3- Contaminant release limits to water, is spilled outside a bunded area, a relevant indicator of that waste using the lowest practicable limit of reporting must be monitoring for at least the first annual rainfall event subsequent to that particular spillage to check effectiveness of the clean-up.
9. Analysis, results and monitoring reports are records that must be kept in accordance with condition G10.

WT5	Releases to waters must not produce any slick or other visible evidence of waste, oil or grease, nor contain visible floating oil, grease, scum, litter or other objectionable matter.

WT6	The site must be sealed and graded to ensure that stormwater or liquid contaminants do not pond or pool on the site.
WT7	The maintenance and cleaning of vehicles and any other equipment, plant or containers must be carried out on sealed and bunded areas.
WT8	All bunding on the site must be constructed and maintained to be impervious.
WT9	Contaminants must not be released to groundwater or at a location where they are likely to release to groundwater.
WT10	A groundwater monitoring system must: a) be designed and installed by an appropriately qualified person(s) with experience and qualifications in hydrology and groundwater monitoring; and b) include a sufficient number of bores installed at locations and depths which yield representative groundwater samples from at least the uppermost aquifer so as to: i. detect any seepage of contaminants to groundwater from the site; and ii. establish the quality of groundwater affected by any seepage of contaminants; and c) include monitoring of background groundwater quality, with both hydraulically up-gradient bore(s) or background bore(s) that have not been affected by any release of contaminants to groundwater from the activity and hydraulically down gradient bore(s) of the activity for at least the following parameters: i. pH; ii. Electrical Conductivity (EC); iii. total recoverable hydrocarbons; iv. heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc); v. phenols; vi. standing water level; vii. PFAS compounds; and viii. any other parameters as may be specified from time to time by the administering authority. **Associated requirements** 1. A minimum of four bores must be monitored as part of the groundwater monitoring system. 2. Monitoring must be in accordance with the current edition of the administering authority's *Monitoring and Sampling Manual*. 3. Groundwater monitoring must be undertaken at least every six months. 4. Measurement and recording of standing water levels must be in metres, accurate to 0.1 metres. 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 metres. 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. 8. Samples must be representative of the release. 9. All PFAS monitoring is to be conducted in accordance with condition G14.

WT11	An appropriately qualified person(s) must determine whether or not there has been any statistically significant increase over background values at locations hydraulically down-gradient of the approved facility for any water quality characteristic required to be monitored under the groundwater monitoring system referred to in condition WT10.
WT12	A groundwater monitoring report must be prepared by an appropriately qualified person(s) and submitted to the administering authority within two (2) months of groundwater monitoring being conducted as per condition WT10. The groundwater monitoring report must include but not be limited to: a) the groundwater monitoring results from the most recent monitoring period conducted as per the groundwater monitoring system referred to in condition WT10; b) A visual representation of the groundwater monitoring results from past monitoring periods that clearly displays contaminant level trends; c) the results of the statistical analysis, referred to in condition WT11; d) an investigation into any potential sources of contamination onsite if there has been a statistically significant increase over background values at locations hydraulically down-gradient of the facility as identified from the results of the analysis referred to in condition WT11; e) the mitigation measures proposed to be implemented onsite to ensure the likelihood of groundwater contamination is prevented, if an investigation identifies potential sources of groundwater contamination from the facility; and f) any mitigation measures proposed under condition WT12 e) must be implemented onsite within 20 business days (or a longer period agreed to in writing by the administering authority) of the groundwater report being submitted to the administering authority.
Agency interest: PFAS Treatment	
T1	Treatment of PFAS contaminated wastes and residues may be undertaken limited to the following waste types and treatment processes: a) Stabilisation and immobilisation of PFAS contaminated soil and the solid component of sludge waste using chemical fixation reagent RemBind; and b) Separation of PFAS from PFAS contaminated liquid waste, including groundwater, surface water, and wastewater using a wastewater treatment system as described in T2.
T2	The wastewater treatment system must include: a) Filtration; and b) Flocculation / coagulation; and c) Chlorination (if necessary); and d) pH adjustment; and e) Multistage PFAS removal which must include adsorption using, at least, granular or powdered activated carbon followed by ion exchange resins.
T3	PFAS contaminated sludge may be treated provided: a) The sludge undergoes a process to separate the material into solid and liquid components upon acceptance; and

	b) Both the solid and liquid components comply with the acceptance limits for solid and liquid waste in the PFAS treatment conditions; and c) The liquid component is treated in accordance with conditions relating to PFAS contaminated liquid waste; and d) The solid component is treated in accordance with conditions relating to PFAS contaminated soils and the solid component of sludge.
T4	Waste containing PFAS must not be subject to any evaporative, thermal or other process or management likely to release PFAS to the atmosphere.
T5	Stabilisation and immobilisation of PFAS contaminated soil and the solid component of sludge waste must occur within a dedicated area of Building 3 as shown in *Appendix 2 – Site Plan*.
T6	PFAS contaminated liquid waste must only be treated in a dedicated PFAS wastewater treatment system in Building 2 as shown in *Appendix 2 – Site Plan.*
T7	PFAS contaminated soil and the solid component of sludge waste treated on site must not contain more than: a) 5 mg/L of total PFAS compounds measured using a leach solution of pH 7 under Australian Standard Leaching Procedure (ASLP) with paired standard analysis and Total Oxidisable Precursor Assay (TOPA); and b) From 1 July 2025, 1 mg/kg of PFOS; and c) From 1 July 2025, 1 mg/kg of PFOA; and d) From 1 July 2025, 1 mg/kg of PFHxS; and e) 50 mg/kg (40 mg/kg as of 1 July 2025) total PFAS Compounds.
T8	PFAS contaminated liquid waste treated on site must not contain more than 0.05 mg/L total PFAS Compounds.
T9	All PFAS contaminated waste must be clearly labelled to identify that it contains PFAS contaminants.
T10	All PFAS contaminated waste must be loaded, unloaded, treated or stored on a concrete surface that is: a) Treated and maintained to ensure an impervious barrier between the PFAS contaminants and the concrete at all times; and b) Bunded to contain any potential seepage or spillage.
T11	All PFAS contaminated soil and solid components of sludge must be mixed using a pugmill or alternative effective physical mixing device operated to achieve: a) Size reduction and/or screening of the solid waste to achieve consistency; and b) Full and consistent mixing of the chemical fixation reagent (RemBind) stabilisation product with the soil and/or solid waste particles.
T12	All PFAS contaminated waste accepted for treatment must be accompanied by the following: a) Safety data sheets and product information for any products suspected of creating the PFAS contamination; and b) Details on how the waste was generated; and c) Analysis results for qualities or co-occurring contaminants that may affect the treatment process including:

	i. For soils and solids: Analysis results for pH, alkalinity, ammonium, total recoverable hydrocarbons, fraction of organic carbon, cation exchange capacity, particle size to Australian Standard AS 1289, dry density and moisture content to Australian Standard AS1289, and acid sulfate soil screening to Australian Standard AS 4969 and as per requirements of the Queensland Acid Sulfate Soil Management Guideline; and ii. For liquids: Analysis results for total recoverable hydrocarbons, total organic carbon, chemical oxygen demand, biochemical oxygen demand, total nitrogen, chlorinated hydrocarbons, major anions and cations, pH, suspended solids, chlorophyll 'a' (surface waters only) and dissolved iron and aluminium for any waters obtained from groundwater or surface water potentially affected by acid sulfate soil; and iii. where there are known or potentially other co-occurring contaminants suspected to be present that may adversely affect the treatment process; those co-occurring contaminants.
T13	Where the proportion of organic fluorine mass in the sum of PFAS standard analysis and TOPA explains less than 60 percent of the measured TOF mass, additional analytical determinations to investigate the potential source of unexplained TOF mass must be undertaken using techniques commercially available[1]. *Note: This is not required where the waste has previously been characterised by this method.
T14	The stabilisation and immobilisation of PFAS contaminated soil and solid components of sludge waste using chemical fixation reagent RemBind must: a) Incorporate a measurement that confirms the effectiveness of mixing of the waste/soil with the chemical fixation reagent (RemBind); and b) Assess the effectiveness of the chemical fixation reagent (RemBind) in reducing the long-term leachability of the treated waste and soil; and c) Record full details of the treatment including waste type, waste origin, characterisation results for the waste/soil, chemical fixation reagent (RemBind) dose rate, mixing process and fixation duration; and d) Avoid dilution of the PFAS contaminated waste/soil with other soil, substances, media or wastes as a means of achieving waste acceptance criteria, prior to or following the treatment; and e) Analyse the fixated waste/soil material using the modified multiple extraction procedure that incorporates all the PFAS analysis techniques used to characterise the pre-treated waste for PFAS and total organic fluorine; and f) Evaluate and report the fixation efficiency for the treated PFAS contaminated waste/soil; and g) Evaluate and report compliance of each sequential leach with: i. The landfill acceptance criteria prescribed in Table 7 of the PFAS National Environmental Management Plan dated May 2020, or any later version; and ii. The landfill acceptance criteria for the landfill(s) intended to accept the treated material; and iii. Keep records of the disposal of all treated wastes, treated soils and any residues.
T15	The treatment of PFAS contaminated liquid waste using a wastewater treatment system must:

[1] Examples include high resolution mass spectrometry and relevant extended quantification suites.

a) Record full details of the treatment including waste types, waste origins, characterisation results for each waste, any breakthrough of PFAS through filtration/adsorption steps and the overall treatment process; and
b) Analyse each batch of up to a maximum of 50 kilolitres of treated liquid using all the PFAS analysis techniques in condition G14 and T8 used to characterise the pre-treated liquid waste; and
c) Compare analysis results for the treated liquid waste quality to the treated liquid waste limits in *Table 4 – Treated water release quality characteristic limits*; and
d) If the treated liquid waste complies with the treated liquid waste limits in *Table 4– Treated water release quality characteristic limits*, provide a copy of the results to the City of Gold Coast and Logan City Council, notify the Councils of the intention to release the waste to sewer on a stated date and time period and comply with the relevant trade waste acceptance requirements; and
e) If the treated liquid waste does not comply with the treated liquid waste limits in *Table 4– Treated water release quality characteristic limits*, carry out further treatment and monitoring necessary to comply with limits; and
f) Keep records of all monitoring of treated water quality.

T16

The release of treated water must only occur to sewer and must comply with the release limits for all quality characteristics in *Table 4 -Treated water release quality characteristic limits*.

Table 4- Treated water release quality characteristic limits

Quality Characteristics	Release Limit µg/L	Limit type
Perfluoroalkyl Sulfonic Acids		
Perfluorobutane sulfonic acid (PFBS)	< LOR of 0.001	Maximum
Perfluoropentane sulfonic acid (PFPeS)	< LOR of 0.001	Maximum
Perfluorohexane sulfonic acid (PFHxS)	< LOR of 0.001	Maximum
Perfluoroheptane sulfonic acid (PFHpS)	< LOR of 0.001	Maximum
Perfluorooctane sulfonic acid (PFOS)	< LOR of 0.001	Maximum
Perfluorodecane sulfonic acid (PFDS)	< LOR of 0.001	Maximum
Perfluoroalkyl Carboxylic Acids		
Perfluorobutanoic acid (PFBA)	< LOR of 0.005	Maximum
Perfluoropentanoic acid (PFPeA)	< LOR of 0.001	Maximum
Perfluorohexanoic acid (PFHxA)	< LOR of 0.001	Maximum
Perfluoroheptanoic acid (PFHpA)	< LOR of 0.001	Maximum
Perfluorooctanoic acid (PFOA)	< LOR of 0.001	Maximum
Perfluorononanoic acid (PFNA)	< LOR of 0.001	Maximum
Perfluorodecanoic acid (PFDA)	< LOR of 0.001	Maximum
Perfluoroundecanoic acid (PFUnDA)	< LOR of 0.001	Maximum
Perfluorododecanoic acid (PFDoDA)	< LOR of 0.001	Maximum
Perfluorotridecanoic acid (PFTrDA)	< LOR of 0.001	Maximum
Perfluorotetradecanoic acid (PFTeDA)	< LOR of 0.001	Maximum
Perfluoroalkyl Sulfonamides		
Perfluorooctane sulfonamide (FOSA)	< LOR of 0.005	Maximum
N-Methyl perfluorooctane sulfonamide (MeFOSA)	< LOR of 0.005	Maximum
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	< LOR of 0.005	Maximum

	<table><tr><td>N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)</td><td>< LOR of 0.005</td><td>Maximum</td></tr><tr><td>N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)</td><td>< LOR of 0.005</td><td>Maximum</td></tr><tr><td>N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)</td><td>< LOR of 0.005</td><td>Maximum</td></tr><tr><td>N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)</td><td>< LOR of 0.005</td><td>Maximum</td></tr><tr><td colspan="3">(n:2) Fluorotelomer Sulfonic Acids</td></tr><tr><td>4:2 Fluorotelomer sulfonic acid (4:2 FTS)</td><td>< LOR of 0.001</td><td>Maximum</td></tr><tr><td>6:2 Fluorotelomer sulfonic acid (6:2 FTS)</td><td>< LOR of 0.005</td><td>Maximum</td></tr><tr><td>8:2 Fluorotelomer sulfonic acid (8:2 FTS)</td><td>< LOR of 0.001</td><td>Maximum</td></tr><tr><td>10:2 Fluorotelomer sulfonic acid (10:2 FTS)</td><td>< LOR of 0.001</td><td>Maximum</td></tr><tr><td colspan="3">Cyclohexane sulfonate</td></tr><tr><td>Perfluoroethylcyclohexanesulfonate (PFECHS)</td><td>< LOR of 0.01</td><td>Maximum</td></tr><tr><td colspan="3">(n:3) Fluorotelomer Carboxylic Acids</td></tr><tr><td>5:3 Fluorotelomer carboxylic acid (5:3 FTCA)</td><td>< LOR of 0.01</td><td>Maximum</td></tr><tr><td>3:3 Fluorotelomer carboxylic acid (3:3 FTCA)</td><td>< LOR of 0.01</td><td>Maximum</td></tr></table> Note: <LOR means less than the above stated limit of reporting. PFECHS and n:3 FTCA limits apply when treating any wastes that may contain hydraulic fluid and landfill leachates respectively.
T17	PFAS stack emissions monitoring must be undertaken six (6) monthly and must include, but not be limited to: a) Sampling and analysis of emission sources to determine the PFAS extended suite containing 28 compounds; and b) Quantifying the PFAS precursors by applying the total oxidisable precursor analysis (TOPA); and c) Monitoring stack emissions from the two-point sources after the filtering devices (Building 1 and Building 2 combined; and Building 3); and d) Monitoring must be conducted by an appropriately qualified person when the waste material containing PFAS compounds are processed in the building.
T18	An appropriately qualified person(s) must determine whether or not there has been a statistically significant increase over previous stack monitoring results for each of the PFAS compounds required to be monitored under condition T17.
T19	The administering authority must be notified if the PFAS stack monitoring results identify a statistically significant increase over previous stack monitoring results, as required to be determined by condition T18, as soon as reasonably practicable within 24 hours of becoming aware of the increase.
T20	An air quality monitoring report must be prepared by an appropriately qualified person(s) and submitted to the administering authority within two (2) months of a notification of a statistically significant increase in PFAS stack monitoring results, as required by condition T19. The air quality monitoring report must include but not be limited to: a) the stack monitoring results from the most recent monitoring period conducted as per the monitoring referred to in condition T17;

	b) a visual representation of the stack monitoring results from past monitoring periods that clearly displays PFAS contaminant level trends; c) the results of the statistically significant increase analysis, as required by condition T18; d) an investigation into the efficiency of the building air filtering devices and potential reasons for the statistically significant increase in PFAS stack monitoring results onsite, as required to be monitored under condition T17; and e) mitigation measures proposed to be implemented onsite to ensure PFAS contaminants from the stack are prevented; and f) any mitigation measures proposed under condition T20 e) must be implemented onsite within 20 business days (or a longer period agreed to in writing by the administering authority) of the air quality monitoring report being submitted to the administering authority.

Definitions for Part 1

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.

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

Administering authority means the Department of the Environment, Tourism, Science and Innovation or its successors or predecessors.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills and experience relevant to the EA requirement and can give authoritative assessment, advice and analysis in relation to the EA requirement using the relevant protocols, standards, methods or literature.

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% of the time period of not less than 15 minutes, using Fast response.

Background bore means groundwater monitoring bore used to sample groundwater from an aquifer the water quality of which may be potentially affected by the activity. This may be an up-gradient bore, down-gradient bore or bore in the same aquifer in a nearby location unaffected by the activity.

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.

Down-gradient bore means a background bore in a location hydraulically down gradient of those aspects of the activity that may affect groundwater quality.

Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*.

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

General waste means waste other than regulated waste.

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). Incompatible waste means waste that may chemically react when:

1. placed in proximity to other wastes; and/or
2. mixed with other wastes.

$L_{Aeq\ adj,T}$ means the adjusted A weighted equivalent continuous sound pressure level measures on fast response, adjusted for tonality and impulsiveness, during the time period T, where T is measured for a period no less than 15 minutes when the activity is causing a steady state noise, and no shorter than one hour when the approved activity is causing an intermittent noise.

$L_{Amax,T}$ means the maximum A-weighted sound pressure level measured over a time period T of not less than 15 minutes, using Fast response.

Land does not include waters.

<LOR means less than the stated limit of reporting.

Measures have the broadest interpretation and includes plant, equipment, physical objects, monitoring, procedures, actions, directions and competency.

Modified Multiple Extraction Procedure means waste testing method based on US EPA Method 1320 and designed to stimulate the leaching that a waste will undergo from repetitive precipitation of acid rain on an improperly designed landfill (https://19january2017snapshot.epa.gov/sites/production/files/2015-12/documents/1320.pdf) with the following modifications:

a) not using an acid rain leach solution simulation; and
b) using instead a leach solution of pH 7 under Australian Standard leaching Procedure (ASLP); and
c) a leach solution of pH 5 under either or both of the Toxicity Characteristic Leaching Procedure (TCLP) and ASLP, depending upon acceptance limits for the waste. NATA means National Association of Testing Authorities.

Normal cubic metre (Nm^3) means the volume of dry gaseous contaminant which occupies 1 cubic metre at a temperature of zero degrees Celsius and at an absolute pressure of 101.3 kilopascals.

Packaged waste means waste sealed in drums or intermediate bulk containers (IBCs)

PFAS means per-and poly-fluoroalkyl substances.

PFAS compounds means the PFAS sub-classes outlined in Appendix A of the most recent edition of the PFAS National Environmental Management Plan.

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

RemBind means the chemical fixation reagent registered as RemBind®, capable of PFAS stabilisation and immobilisation.

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. A first flush stormwater system must not be used as a secondary containment system.

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 park or garden; 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 measurements, with a predominant component within the frequency range 10 to 200 Hz. It includes any noise emission likely to cause an overall sound pressure level at a noise sensitive place exceeding 55 dB(Z).

Up-gradient bore means a background bore, in a location hydraulically up gradient of all potential influences of the activity that may affect groundwater quality.

Waste sampling protocol means requirements prescribed in Division 1 and 2, Part 1 of Chapter 5 of the Environmental Protection Regulation 2019 (EP Reg) and in Victorian Environmental Protection Authority's *Industrial Waste Resource Guidelines – Sampling and Analysis of Waters, Wastewaters, Soils and Wastes (2009).*

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 the environmental authority.

Part 2 – ERA 57 Regulated waste transport

Location: Mobile and temporary

Relevant Activities:

ERA 57 Regulated waste transport

The environmentally relevant activity conducted on a mobile and temporary basis must be conducted in accordance with the following conditions of approval.

Eligibility criteria

Eligibility criteria
Regulated waste is transported by vehicles

Conditions of environmental authority

Condition number	Condition
Agency Interest: General	
2-G1	All reasonable steps must be taken to ensure the activity complies with the eligibility criteria.
2-G2	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.
2-G3	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.
2-G4	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.
2-G5	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

Condition number	Condition
	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 *Environmental Protection Act 1994* ; and f) ensure that reviews of environmental performance are undertaken and recorded at least annually.
2-G6	The activity must not cause environmental nuisance at a sensitive place.
2-G7	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.
2-G8	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.
2-G9	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.
2-G10	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. *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 40CFP Part 761: Polychlorinated biphenyls: notification and manifesting for PCB waste activities: clause number 761.125*
2-G11	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

Condition number	Condition
	b) all regulated waste containers must be mounted securely to the vehicle and contained within the tray of the vehicle.
2-G12	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.
2-G13	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	
2-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.
2-W2	Regulated waste must not be removed or released from the vehicle other than: a) for the purpose of consolidating grease trap and/or other oily wastes; or b) at a facility that can lawfully accept the waste.
2-W3	Incompatible wastes must not be placed in the same container or transported in such a way that mixing may occur.
2-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. *Note: Additional waste tracking requirements apply to the transportation of trackable waste in accordance with the Environmental Protection Regulation 2008.*
2-W5	All asbestos waste transported must be: a) double bagged and sealed in heavy duty polythene bags (minimum 200 µm thickness); or

Condition number	Condition
	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.
2-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.
2-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.
2-W8	All clinical and related waste must be provided with a rigid secondary containment system during transport.
2-W9	Vehicles and load compartments must be locked when unattended.

Definitions for Part 2

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 *Australian code for the transport of dangerous goods by road and rail, 7th edition*, or more recent versions as they become available.
Administering authority	means the Department of the Environment, Tourism, Science and Innovation or its successor or predecessors.
Asbestos-containing material	means any material, object, product or debris that contains asbestos.

Term	Definition
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 *Environmental Protection Act 1994.*
Environmental harm	as defined in Section 14 of the *Environmental Protection Act 1994.*
Environmental nuisance	as defined in Section 15 of the *Environmental Protection Act 1994.*
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.
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.

Term	Definition
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 *Nature Conservation Act 1992*, the *Marine Parks Act 2004* 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.
Regulated waste	As defined in Section 42 of the *Environmental Protection Regulation 2019.*
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 *National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]*, 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).

Term	Definition
Safety phrase	means a phrase stated in National Occupational Health and Safety Commission's document entitled *National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]*, 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.

Appendix 1- Approved regulated wastes

Trackable waste code (as per Sch 11 of EP Reg)	Waste Type	Acceptance Criteria	Storage & handling	Treatment	Solids and sludge treatment technology	Liquid waste treatment technology	Max storage volume	Storage and treatment time
B100	Acidic solution and acids in solid form	Up to 100%	Yes	Yes	Solids would be dissolved	Dissolve/ Neutralisation	200 KL	4-6 weeks
A100	Waste from surface treatment of metals & plastics	Metals up to 5% weight/weight (w/w) Organics up to 10% w/w	Yes	Yes	Immobilisation	Precipitation/ Neutralisation	100 T	1-2 weeks
D170	Antimony and antinomy compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
D130	Arsenic, arsenic compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	2,000 T	1-2 weeks
N220	Asbestos	Up to 1% in soil Packaged asbestos sheeting and industrial asbestos	Packaged waste only	Yes	Immobilisation	Precipitate/ storage	5,000 T	1-2 weeks
D290	Barium compounds (excluding barium sulphate)	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	200 T	1-2 weeks
C100	Basic (alkaline) solutions or bases (alkalis) in solid form	Up to 100%	Yes	Yes	Dissolve and treat as liquid	Dissolve/ Neutralise	100 KL	1-2 weeks
D160	Beryllium and beryllium compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	200 T	1-2 weeks
D310	Boron and boron compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
D150	Cadmium and cadmium compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	1,000 T	1-2 weeks
T100	Chemical waste arising from a research and development or teaching activity	Case by case analysis	Yes	Yes	Immobilisation	Precipitation/ Adsorption/ Chemical Oxidation	100 T	1-2 weeks

Trackable waste code (as per Sch 11 of EP Reg)	Waste Type	Acceptance Criteria	Storage & handling	Treatment	Solids and sludge treatment technology	Liquid waste treatment technology	Max storage volume	Storage and treatment time
D140	Chromium compounds (hexavalent and trivalent)	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	2,000 T	1-2 weeks
D190	Copper compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	2,000 T	1-2 weeks
D350	Chlorates	Up to 5% w/w	Yes	Yes	Immobilisation/ Storage	Adsorption	100 T	1-2 weeks
N160	Encapsulated, chemically-fixed, solidified or polymerised wastes	Case by case analysis	Yes	Yes	Immobilisation	N/A	5,000 T	1-2 weeks
G100	Esters	Organics up to 20%	Yes	Yes	Immobilisation	Adsorption	100 T	No storage, treated immediately
N190	Filter cake	Metals up to 5% w/w Organics up to 10% w/w	Yes	Yes	Immobilisation/ Bioremediation/ Chemical Oxidation	N/A	1,000 T	1-2 weeks
N140	Fire debris and fire wash waters	Case by case analysis. Non PFAS contaminated waste only	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Precipitation/ Chemical Oxidation	500 T	1-2 weeks
N150	Fly ash	Metals up to 5% w/w	Yes	Yes	Immobilisation	N/A	5,000 T	1-2 weeks
G150	Halogenated Organic Solvents	Up to 5% w/w	Yes	Yes	Immobilisation/ Bioremediation/ Chemical Oxidation	Chemical Oxidation/ Adsorption	20 T	No storage, treated immediately
N205	Residues from industrial waste treatment or disposal operations	Case by case analysis	Yes	Yes	Immobilisation/ Bioremediation/ Chemical Oxidation	N/A	1,000 T	1-2 weeks
M220	Isocyanate compounds	Case by case analysis	Yes	Yes	Storage/ Immobilisation	N/A	20 T	1-2 weeks
D220	Lead; lead compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	2,000 T	1-2 weeks

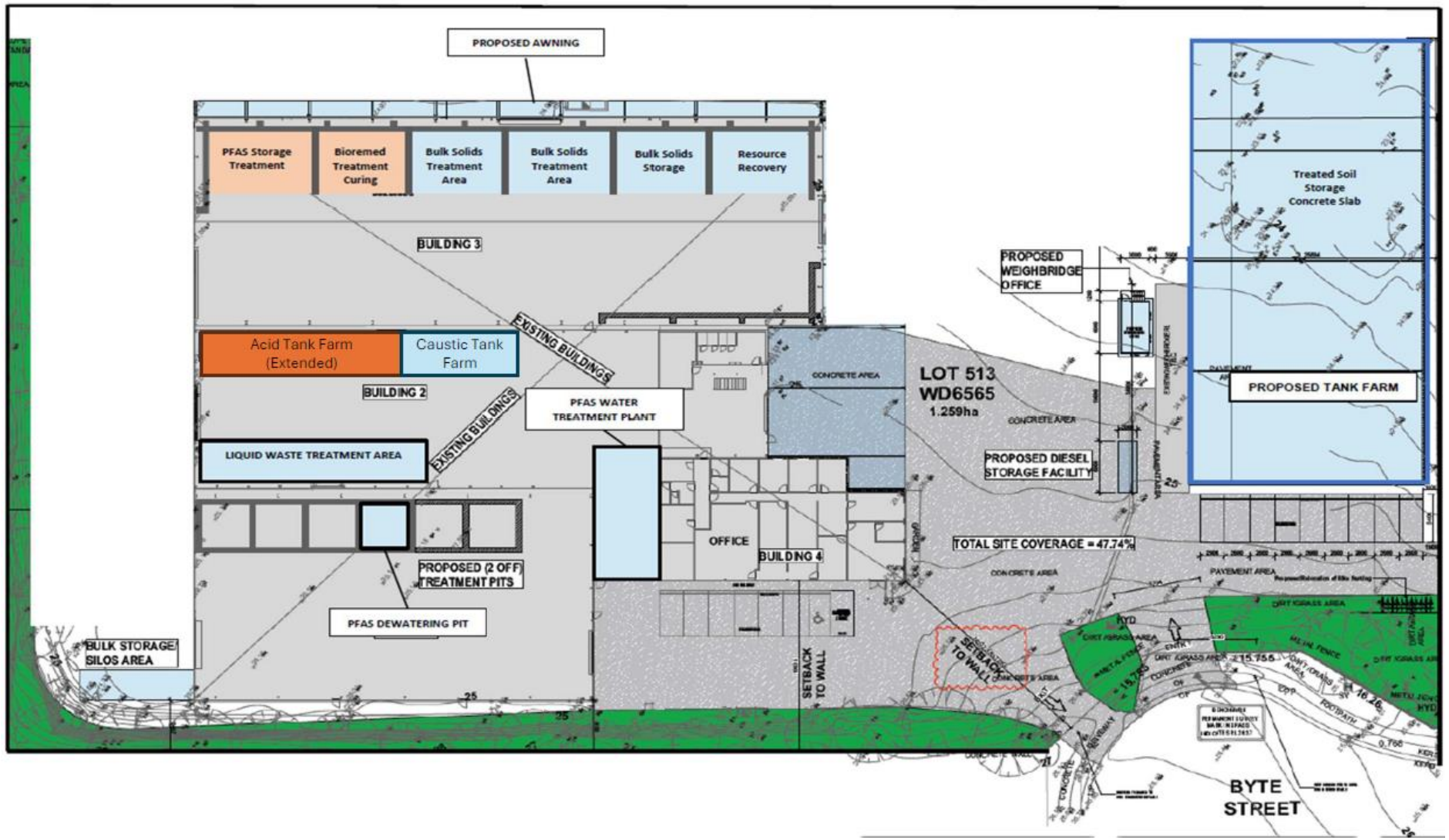
Trackable waste code (as per Sch 11 of EP Reg)	Waste Type	Acceptance Criteria	Storage & handling	Treatment	Solids and sludge treatment technology	Liquid waste treatment technology	Max storage volume	Storage and treatment time
D120	Mercury; mercury compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	500 T	1-2 weeks
D100	Metal Carbonyls	Up to 5% w/w metals (Nickel, boron, iron)	Yes	Yes	Immobilisation	Precipitation/ Adsorption	100 T	1-2 weeks
J100	Mineral Oils	Up to 50% w/w	Yes	Yes	Bioremediation	Separation	500 T	1-2 weeks
D210	Nickel, nickel compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	500 T	1-2 weeks
D300	Non-toxic salts	Up to 100%	Yes	Yes	Immobilisation	N/A	500 T	1-2 weeks
J120	Oil and water mixtures or emulsions, or hydrocarbon and water mixtures or emulsions	Up to 30%	Yes	Yes	Bioremediation/ Chemical Oxidation/ Immobilisation	Separation/ Adsorption	100 T	1-2 weeks
H110	Organic phosphorous compounds	Up to 100%	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
G110	Organic solvents, other than halogenated solvents	Up to 5% w/w	Yes	Yes	Immobilisation/ Bioremediation/ Storage	Chemical Oxidation/ Adsorption	20 T	No storage, treated immediately
D340	Perchlorates	Up to 5% w/w	Yes	Yes	Immobilisation	Adsorption	20 T	1-2 weeks
M250	Surface active agents (Surfactants)	Up to 5% w/w	Yes	Yes	Immobilisation/ Bioremediation/ Storage	Chemical Oxidation/ Adsorption	100 T	1-2 weeks
D360	Phosphorus compounds	Up to 100%	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
D240	Selenium and selenium compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
D250	Tellurium and tellurium compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
D180	Thallium and thallium compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	100 T	1-2 weeks
M230	Triethylamine catalysts for setting foundry sands	Up to 5% w/w	Yes	Yes	Immobilisation/ Bioremediation	N/A	100 T	1-2 weeks
D270	Vanadium compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	1,000 T	1-2 weeks
E100	Waste containing peroxides other than hydrogen peroxide	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation/ Adsorption	1,000 T	1-2 weeks

Trackable waste code (as per Sch 11 of EP Reg)	Waste Type	Acceptance Criteria	Storage & handling	Treatment	Solids and sludge treatment technology	Liquid waste treatment technology	Max storage volume	Storage and treatment time
H100	Waste from the manufacture, formulation or use of biocides or phytopharmaceuticals	Up to 5% w/w	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Chemical Oxidation/ Adsorption	100 T	1-2 weeks
F100	Waste from the manufacture, formulation or use of inks, dyes, pigments, paints, lacquers or varnish	Up to 5% w/w	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Chemical Oxidation/ Adsorption	20 T	No storage, treated immediately
G160	Waste from the manufacture, formulation or use of organic solvents	Up to 5% w/w	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Chemical Oxidation/ Adsorption	20 T	No storage, treated immediately
T120	Waste from the manufacture, formulation or use of photographic chemicals or processing materials	Up to 5% w/w organic and metal (predominantly silver)	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Precipitation/ Chemical Oxidation	100 T	1-2 weeks
F110	Waste from the manufacture, formulation or use of resins, latex, plasticisers, glues or other adhesives	Up to 5% w/w organic and metal contamination	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Precipitation/ Chemical Oxidation/ Adsorption	1,000 T	1-2 weeks
H170	Waste from the manufacture, formulation or use of wood preserving chemicals	Up to 5% w/w Chromium, Copper, Arsenic, Organics	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Precipitation/ Chemical Oxidation	1,000 T	1-2 weeks
R140	Waste from the manufacture or preparation of pharmaceutical products	Case by case analysis	Yes	Yes	Immobilisation/ Chemical Oxidation/ Bioremediation	Precipitation/ Chemical Oxidation	100 T	1-2 weeks
D230	Zinc compounds	Up to 5% w/w	Yes	Yes	Immobilisation	Precipitation	2,000 T	1-2 weeks
A130	Cyanides (inorganic)	Up to 5% w/w	Yes	No			20 T	1-2 weeks
M210	Cyanides (organic)	Up to 5% w/w	Yes	No			20 T	1-2 weeks

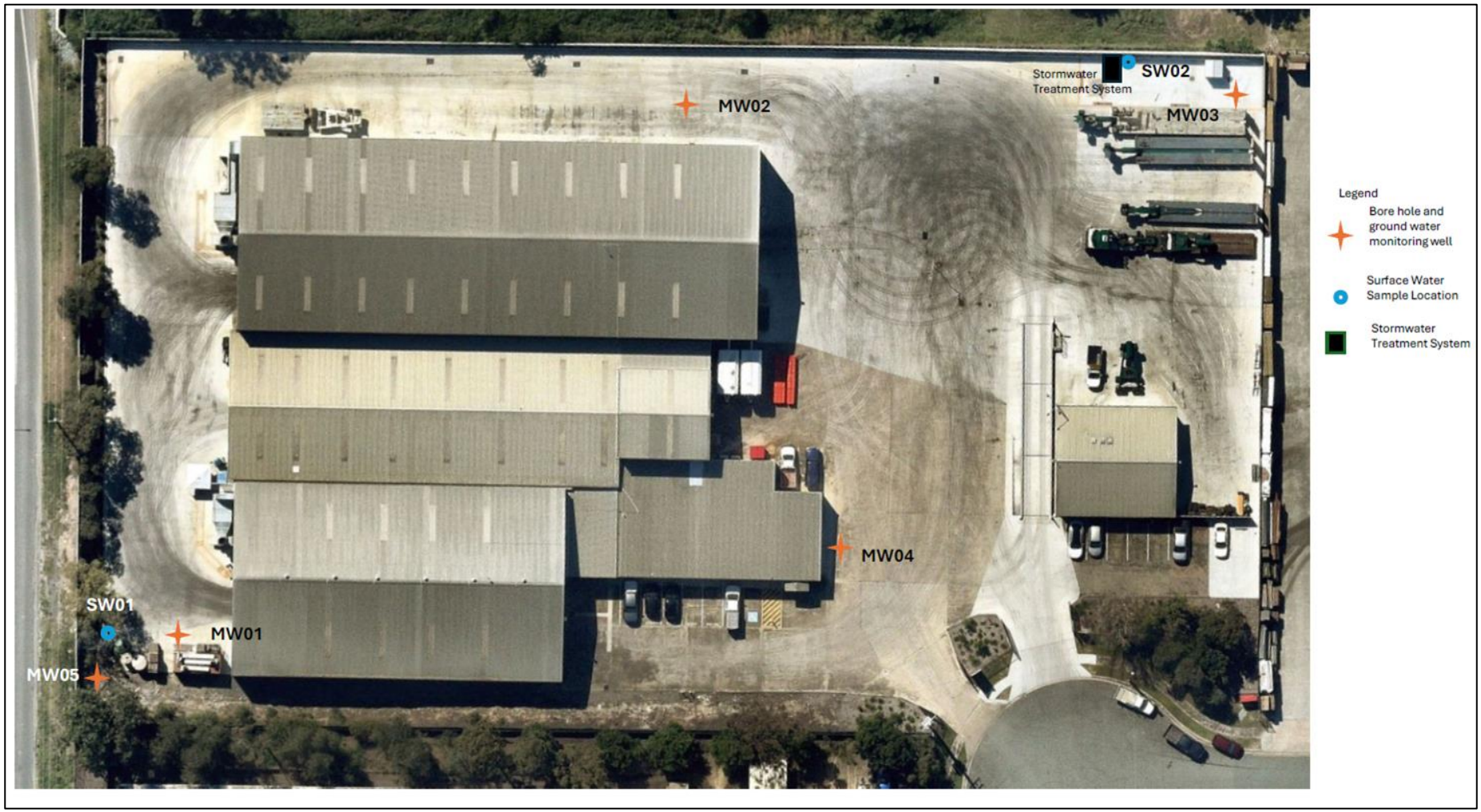
Trackable waste code (as per Sch 11 of EP Reg)	Waste Type	Acceptance Criteria	Storage & handling	Treatment	Solids and sludge treatment technology	Liquid waste treatment technology	Max storage volume	Storage and treatment time
M100	Material containing polychlorinated biphenyls (PCBs), polychlorinated naphthalene's (PCN's), polychlorinated terphenyls (PCT's) and/or polybrominated biphenyls (PBB's)	Up to 5% w/w	Yes	No			100 T	1-2 weeks
M160	Organohalogen compounds	Up to 5% w/w	Yes	No			20 T	1-2 weeks
M270	Per- and poly-fluoroalkyl substances	Refer to PFAS treatment conditions for treatment acceptance criteria. PFAS waste exceeding this criteria may be accepted for storage only.	Yes	Refer to PFAS treatment conditions			2,000 T	1-4 weeks

Note: Case by case analysis means an effective evaluation of whether the waste can be treated effectively by the treatment process types and capacity on site.

Appendix 2 – Site Plan



Appendix 3- Monitoring locations



END OF ENVIRONMENTAL AUTHORITY