Permit

Environmental Protection Act 1994

Environmental authority P-EA-100167564

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

Environmental authority number: P-EA-100167564

Environmental authority takes effect on 25 March 2022

The anniversary date of this environmental authority is 25 March each year

Environmental authority holder(s)

Name(s)	Registered address
Alpha HPA Limited	Level 2 66 Hunter Street Sydney

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
ERA 7 - (4)(a) - Chemical Manufacturing (manufacturing, in a year, 200 tonnes - 5,000 tonnes of fertiliser).	Lot 12 on SP 239343 at 53 Reid Road, Yarwun
ERA 07 (6)(d) - Chemical Manufacturing 6: Manufacturing, in a year, the following quantities of inorganic chemicals, other than inorganic chemicals to which items 1 to 4 apply (d) more than 100,000t.	
ERA 33 - Crushing, milling, grinding or screening (Crushing, milling, grinding or screening more than 5000t of material in a year).	

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.

Queensland Government

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

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

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

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

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

Take effect

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

a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority – on the nominated day; or

b) if the authority states a day or an event for it to take effect – on the stated day or when the stated event happens; or

c) otherwise – on the day the authority is issued.

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.

Signature	Date
Tibbs	25 March 2022

Teale Gibbs
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Minerals Business Centre
PO Box 7230, Cairns QLD 4870
Phone: (07) 4222 5352
Email: ESCairns@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

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

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

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).

Conditions of environmental authority

Schedule G: General

General

G1 Activities authorised under this environmental authority must be conducted in accordance with the following annual limitations:

a) manufacture of up to 11,000 tonnes (t) of high purity aluminium products (such as high purity alumina, aluminium precursor salts, boehmite); and

b) manufacture of up to 136,000t of ammonium nitrate; and

c) manufacture of up to 5,000t of fertiliser.

G2 All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused by the activities.

G3 This environmental authority does not authorise a relevant act unless a condition of the environmental authority specifically authorises that relevant act to occur.

Plant and equipment

G4 The holder of this environmental authority must install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority and:

a) maintain such measures, plant and equipment in a proper and efficient condition; and

b) operate such measures, plant and equipment in a proper and efficient manner; and

c) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated; and

d) in accordance with any written procedures developed under condition G19 for the plant and equipment.

Staff training

G5 All staff must be trained in, and made aware of, their obligations under this environmental authority (including any procedures required by the environmental authority) and the *Environmental Protection Act 1994* at induction and at least annually thereafter.

G6 Records must be kept of all persons trained under condition G5 and the date they received the training.

Notifications of emergencies, incidents and exceptions

G7 The holder of this environmental authority must notify the administering authority by written notification within six (6) hours, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.

G8 Within 10 business days following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following:

a) results and interpretation of any samples taken and analysed; and

b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and

c) proposed actions to prevent a recurrence of the emergency, incident or exceedance.

Contravention of conditions

G9 Notwithstanding the requirements of condition G7, any contravention of a condition of this environmental authority must be reported to the administering authority within 24 hours of becoming aware of the contravention.

G10 Within 20 business days (or a longer period agreed to in writing by the administering authority) of a report made under condition G9, an investigation must be undertaken, completed and recorded to determine:

a) the potential circumstances and actions that may have contributed to the contravention; and

b) reasonable measures that will be implemented to address the cause of the contravention to prevent future contraventions of this nature.

G11 Measures identified under condition G10 must be implemented within:

a) 20 business days of completion of the investigation required by condition G10 being finalised; or

b) a longer period agreed to in writing by the administering authority.

G12 The following details must be recorded for all contraventions of the environmental authority:

a) date and time the contravention occurred (if known); and

b) nature and details of the contravention; and

c) investigations carried out in response to the contravention as required by condition G10; and

d) the results of investigations; and

e) measures taken under condition G11.

Monitoring

G13 Any documentation, monitoring data, records and reports required by this environmental authority must be:

a) kept until surrender of the environmental authority; and

b) provided to a new holder of the environmental authority on transfer of the environmental authority; and

c) provided to the administering authority within a timeframe nominated by the administering authority; and

d) provided to the administering authority in the format requested.

G14 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.

G15 All monitoring and sampling required to be carried out under this environmental authority must be carried out, interpreted and recorded by an appropriately qualified person(s).

Chemical Storage

G16 All batteries, chemicals and fuels and other liquid substances must be:

a) stored within a secondary containment system that is impervious to the materials stored within it, and.

b) managed to prevent the release of contaminants to waters and land.

Complaints

G17 The holder of this environmental authority must record all environmental complaints received about the activities including:

a) name, address and contact number of the complainant; and

b) time and date of complaint; and

c) reasons for the complaint; and

d) investigations undertaken; and

e) conclusions formed; and

f) actions taken to resolve the complaint; and

g) any abatement measures implemented; and

h) person responsible for resolving the complaint.

G18 The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within 10 business days of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.

Environmental risk management procedures

G19 Written procedures must be developed and implemented that include:

a) identification of all potential risks to the environment from the activity, including:

i) during routine operations; and

ii) outside routine operations; and

iii) during preparation, rehabilitation and closure; and

iv) in an emergency (e.g. fire or natural disaster); and

b) measures to be implemented to prevent or minimise the potential for environmental harm for each of the potential risks identified; and

c) processes to annually review environmental risks, incidents, complaints and improve performance.

Third-Party Reporting

G20 The holder of this environmental authority must:

a) within one (1) year of the commencement of this environmental authority, obtain from an appropriately qualified person(s) a report on compliance with the conditions of this environmental authority; and

b) obtain further such reports at regular intervals, not exceeding three-yearly intervals, from the completion of the report referred to above; and

c) provide each report to the administering authority within 90 days of its completion.

G21 Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:

a) comply with the amended or changed standard, policy or guideline within two (2) years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, and

b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

Schedule A: Air

A1 Unless authorised by this environmental authority, the release of contaminants to air must not cause environmental harm.

Point source release to air

A2 Contaminants must only be released to air from the release points and in accordance with the criteria specified in **Table A1—Release points**, **Table A2—Contaminant limits** and the associated requirements.

A3 Contaminants released from the release points must not exceed the contaminant release limit specified in **Table A2 – Contaminant limits**.

Table A1 – Release points

Release points[1]	Location (GDA94, Zone 56)		Release point description	Minimum release height (m)	Minimum velocity (m/sec)	Minimum temperature (°K)
	Easting	Northing				
C1	313,690	7,362,459	Boiler stack	20	21.4	423
C2	313,633	7,362,396	Ammonia and nitric acid fume scrubber stack	15	17.1	313
C3	313,551	7,362,401	Dryer stack	20	13.4	423
C4	313,569	7,362,376	Calciner stack	20	15.9	773
C5	313,613	7,362,366	Microniser stack	20	10.4	403

1. The locations of air emission release points are identified on **Figure 1 – Air emission release point locations**.

Table A2 - Contaminant limits

Release points	Contaminant	Limit type	Contaminant release limit (maximum)	Minimum monitoring frequency
C1	NOx (as equivalent NO_2)	Gaseous	180 mg/Nm^3(dry) @ 3% O_2	Quarterly[1], or Biannually[2], or Annually[4]
C2	NOx (as equivalent NO_2)	Gaseous	400 mg/Nm^3 (dry) @ 3% O_2	Quarterly[1], or Biannually[2], or Annually[4]
	Ammonia	Gaseous	78 mg/Nm^3 (dry) @ 3% O_2	Quarterly[1], or Biannually[2], or Annually[4]
C3	NOx (as equivalent NO_2)	Gaseous	180 mg/Nm^3 (dry) @ 3% O_2	Quarterly[1], or Biannually[2], or Annually[4]
C4	NOx (as equivalent NO_2)	Gaseous	180 mg/Nm^3 (dry) @ 3% O_2	Quarterly[1], or Biannually[2], or Annually[4]
	Ammonia	Gaseous	92 mg/Nm^3 (dry) @ 3% O_2	Quarterly[1], or Biannually[2], or Annually[4]
C5	TSP (total suspended particulates)	Particulate	50 mg/Nm^3 (dry)	Quarterly[1], or Biannually[2], or Annually[4]

Associated monitoring requirements:

1. Quarterly for 12 months from commencement of use, or if an exceedance of a release limit is detected during 'Quarterly' or 'Biannually' sampling.
2. Biannually if 12 months of 'Quarterly' monitoring results are compliant with the release limits, or if exceedance of a release limit is detected during 'Annually' sampling.
3. Intentionally left blank to limit confusion with contaminant release limit concentrations.
4. Annually if 12 months of 'Biannually' monitoring results are compliant with the release limits.

A4 An appropriately qualified person(s) must conduct a monitoring program of contaminant releases to the atmosphere at the release points, minimum frequency and for the contaminants specified in **Table A2 - Contaminant limits** and which complies with the most recent edition of AS4323.1 Stationary source emissions method 1: Selection of sampling positions, and the most recent edition of the administering authority's air quality sampling manual.

A5 Contaminants must be monitored when emissions are expected to be representative of actual operating conditions for the sampling period.

A6 For all monitoring conducted under condition A4 records must be kept for:

a) efflux velocity, oxygen concentration, flow rate, temperature, and moisture content; and

b) the actual test methods and accuracy; and

c) plant throughput rate at time of sampling; and

d) fuel type and consumption rate (if applicable); and

e) any factors that may influence either gaseous or particulate emissions or both; and

f) air pollution control system operating status.

Air pollution control systems

A7 A maintenance program must be developed that provides an inventory of what air pollution control equipment needs to be maintained; identifies the standard and frequency to which it must be maintained; and keeps a history of the maintenance performed.

A8 Where pollution control systems are installed to treat exhaust gases, dust and vapours they must be maintained and operated in accordance with their design specifications unless otherwise agreed by the administering authority.

A9 A device must be installed and maintained on all flares (diverter stack, gas enrichment stack and ammonia stack) to alert key operations personnel if the pilots on the flare devices are not operational.

Weather monitoring

A10 A weather monitoring station must be maintained which measures and records the following meteorological parameters:

a) air temperature; and

b) relative humidity; and

c) wind direction; and

d) wind speed; and

e) rainfall.

Note: In the event that Alpha's weather station is offline or not available, the Gladstone airport weather station may be used to record the above meteorological parameters.

A11 The meteorological station required by condition A10 must be installed in accordance with the latest edition of the Bureau of Meteorology guideline Observation specifications No.2013.1 Guidelines for the siting and exposure of meteorological instruments and observing facilities.

Ambient air monitoring

A12 The holder must, when requested in writing by the administering authority, contribute to the undertaking of an ambient air monitoring program in consultation with the administering authority.

Schedule: Noise

N1 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.

N2 Noise from the activity must not include substantial low frequency noise components and must not exceed the levels identified in **Table N1 – Noise limits** and the associated requirements at any nuisance sensitive place or commercial place.

Table N1 – Noise limits

Noise level measured in dB(A)	Monday to Saturday			Sunday and public holidays		
	Day	**Evening**	**Night**	**Day**	**Evening**	**Night**
	7am to 6pm	**6pm to 10pm**	**10pm to 7am**	**9am to 6pm**	**6pm to 10pm**	**10pm to 9am**
	Noise measured outdoors at the nearest sensitive place			**Noise measured outdoors at the nearest sensitive place**		
LA_{eq} adj, 1hr	50	42	37	42	37	37
$La_{max,1hour}$	NA	NA	49	NA	NA	49
	Noise measured outdoors at a commercial place (when the activity is open for business)			**Noise measured outdoors at a commercial place (when the activity is open for business)**		
LA_{eq} adj, 1hr	52			52		

Notes:
Laeq,adj,1hr means an A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character and impulsiveness of the sound, that within a 1 hour period has the same mean square sound pressure of a sound that varies with time.
Lamax,1hr means the maximum A-weighted sound pressure level measured over a time period of 1 hour.

N3 The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's noise measurement manual.

N4 When requested by the administering authority, noise monitoring must be undertaken by an appropriately qualified person(s), to investigate any complaint of noise nuisance, and the results notified within 14days to the administering authority. Monitoring must include:

a) Laeq, adj, T; and

b) Background noise (Background) as LA 90, adj, T; and

c) MaxLpA,T; and

d) the level and frequency of occurrence of any impulsive or tonal noise; and

e) atmospheric conditions including wind speed and direction; and

f) effects due to extraneous factors such as traffic noise; and

g) location, date and time of recording.

Schedule: Water

WT1 Contaminants must not be released directly or indirectly to any waters unless otherwise permitted by a condition of this environmental authority.

WT2 Contaminants reporting to the Waste Tank as identified in **Figure 2 – Water Management System Process Flow Diagram**, must be removed to a facility that can lawfully accept the waste.

Point source release to water

WT3 Contaminants must only be released to waters from the release points specified in **Table WT1 – Contaminant release points and release limits** or in accordance with conditions WT7 to WT10.

WT4 Contaminants released in accordance with condition WT3 must not exceed any release limits specified in **Table WT1 – Contaminant release points and release limits**.

Table WT1 – Contaminant release points and release limits

Release point locations[1]		Quality characteristics	Release limits			Sample frequency
Description	**Coordinates (GDA94, Zone 56)**		**Minimum**	**Median**	**Maximum**	
Trade Waste Pond	RP1 (313771 E, 7362498N)	Aluminium (mg/L)			Load limits apply during wet weather days (refer to condition WT14) 0.055[3] during any other day	At the commencement of release[2] and daily, while releasing.
		Total suspended solids (mg/L)			50 during wet weather days 20 during any other day	
		Total nitrogen (mg/L)			Load limits apply during wet weather day (refer to condition WT14) 0.5[4] during any other day	
		Nitrate (mg/L nitrogen)	For interpretative purposes			
		Ammonia (mg/L)	For interpretative purposes			
		Total phosphorus (mg/L)			0.05[4]	
		Total recoverable hydrocarbon (TRH) mg/L			10	
		Electrical conductivity (uS/cm)	For interpretative purposes			
		Temperature (°C)			40	
		pH	6		9	

Release point locations[1]		Quality characteristics	Release limits			Sample frequency
Description	**Coordinates (GDA94, Zone 56)**		**Minimum**	**Median**	**Maximum**	
Stormwater Ponds: Discharge from Basin (End-of-Pipe)	RP2 (313530 E, 7362594 N)	Aluminium (mg/L)			0.055[3]	At the commencement of release [2] and daily while releasing.
		Total suspended solids (mg/L)			45	
		Total Nitrogen (mg/L)		0.5[4]	2.8	
		Nitrate (mg/L nitrogen)	For interpretative purposes			
		Ammonia (mg/L)	For interpretative purposes			
		Total phosphorus (mg/L)		0.05[4]	0.2	
		Total recoverable hydrocarbon (TRH) mg/L			10	
		Electrical conductivity (uS/cm)	For interpretative purposes			
		pH	6.5		8[4]	
		Turbidity	Monitoring only			

1. The release points locations are identified on **Figure 3 – Contaminant and stormwater release point locations.**
2. The first sample must be taken as soon as practicable, but within twelve (12) hours of commencement of release.
3. Toxicant default guideline value for water quality in aquatic ecosystems – 95% level of species protection (ANZG 2018, https://www.waterquality.gov.au/)
4. Based on the water quality objectives defined for Calliope River basin – FRESH WATERS INSIDE STATE DEVELOPMENT AREA – Lowland Fresh from the Curtis Island, Calliope River and Boyne River Basins Environmental Values and Water Quality Objectives

WT5 The release of contaminants to waters must be monitored:

a) at the release points specified in **Table WT1 – Contaminant release points and release limits**; and

b) at the monitoring frequency specified in **Table WT1 – Contaminant release points and release limits**; and

c) for each quality characteristic specified in **Table WT1 – Contaminant release points and release limits**.

WT6 The holder of this environmental authority must undertake weekly monitoring of water contained within the trade waste pond and stormwater ponds for all the quality characteristics in **Table WT1 – Contaminant release points and release limits**.

Precursor Production Facility

WT7 Contaminants from the stage 1 precursor production facility shown in **Figure 2** – **Water Management System Process Flow Diagram** must be captured and transported via truck to the trade waste infrastructure or a facility lawfully able to accept the contaminants.

WT8 Contaminants captured in accordance with condition WT7 must not exceed the release limits specified in **Table WT1 – Contaminant release points and release limits** specified for release point location RP1.

WT9 Notwithstanding condition WT8, contaminants captured in accordance with condition WT7 must not exceed the release limit specified during any other day **in Table WT1 – Contaminant release points and release limits** for total nitrogen, total suspended solids and aluminium.

WT10 Contaminants captured in accordance with condition WT7 must be monitored for all of the quality characteristics specified in **Table WT1 – Contaminant release points and release limits** for each truck load.

Release volume

WT11 The volume of water released from each release point identified in **Table WT1 – Contaminant release points and release limits** must be measured daily and recorded as cubic metres per day (m^3/day).

WT12 The measurement of water volumes released from the release points identified in **Table WT1 – Contaminant release points and release limits** must be determined by an appropriate method with an accuracy of +/-10 percent.

WT13 The volume of water released from the release points identified in **Table WT2 – Release volume limits** must not exceed the associated maximum daily volume.

Table WT2 – Release volume limits

Release points (GDA94, Zone 56)	**Maximum daily volume m^3/day**
Trade Waste Pond RP1 (313771 E, 7362498 N)	1,200m^3/day (for Wet Weather Days) 165m^3 (during any other day)

WT14 All reasonable and practicable measures must be taken to ensure the maximum available capacity of the trade waste pond and stormwater ponds is maintained at all times.

WT15 After becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority, the holder of the environmental authority must:

a) immediately commence surface waters monitoring; and

b) notify the administering authority within 24 hours of receiving the monitoring result via WaTERS.

WT16 Before commencement of the activities authorised by this environmental authority, a written agreement must be in place between the operator of the trade waste infrastructure and the holder of this environmental authority for acceptance of contaminants from the trade waste system.

WT17 Before commencement of the activities authorised by the stage 1 precursor production facility shown in **Figure 2 – Water Management System Process Flow Diagram** and **Figure 4 – Stage 1 and Stage 2 Diagram**, a written agreement must be in place between the operator of the Trade Waste Infrastructure and the holder of this environmental authority for acceptance of contaminants.

WT18 The written agreement required by conditions WT16 and WT17 must be provided to the administering authority upon request.

Daily Load – wet weather day

WT19 During wet weather days only, the daily mass load of aluminium and total nitrogen released to waters from the trade waste pond release point specified in **Table WT1 – Contaminant release points and release limits** must not exceed the daily mass load limits specified in **Table WT3 – Wet weather daily mass load limits.**

Table WT3- Wet weather daily mass load limits

Quality characteristic	Daily mass load limit (kg/day) Wet weather day only[1]
Aluminium (dissolved)	2.7
Total nitrogen (as N)	30

1. See definition of Wet Weather Day in the definitions schedule. During any other day, concentration and release volume limits described in Table WT1 and Table WT2 apply.

WT20 The holder of this environmental authority must calculate and report on the daily release volume (ML) and daily mass loads of aluminium and total nitrogen released to waters in accordance with condition WT19 annually.

WT21 A review of the daily mass loads must be undertaken and reported annually by the holder of this environmental authority, including the assessment of potential changes in concentrations and loads over time and the investigation for continual improvements.

WT22 The report required by condition WT20 and WT21 must be submitted to the administering authority within one (1) month following the anniversary date each year.

Surface waters monitoring – Stormwater

WT23 Surface waters must be monitored:

a) at the locations and monitoring frequencies specified in **Table WT4 – Surface waters monitoring locations and frequencies**; and

b) for each quality characteristic specified in **Table WT1 – Contaminant release points and release limits.**

Table WT4 – Surface waters monitoring locations and frequencies

Location reference[2]	Monitoring location description	Location[1] (GDA94, Zone 56)		Monitoring frequency
		Easting	Northing	
Upstream sites				
REMP_US1*	Pyealy Creek adjacent to Mount Miller Road on the upstream side of the North Coast Rail Line.	313421.45	7360358.81	Within 24 hours of commencement of release, while releasing.
REMP_US2	Reid Road table drain upstream of Project site	313495.72	7362360.36	
REMP_US3*	Oaky Creek upstream side of Calliope River Road. Note this site is only applicable if REMP_US1* is not accessible after reconnaissance.	311487.64	7354009.67	
Downstream sites				
REMP_DS1	Reid Road table drain upstream of confluence with flow path from Orica site release location ANP1/ANP2	313579.96	7362701.18	Within 24 hours of commencement of release, while releasing.
REMP_DS2	Reid Road table drain upstream of confluence with flow path from Orica site release location CC1	313633.14	7362946.88	
REMP_DS3	Hanson Road culvert	313891.95	7362954.65	

1. The release points locations are identified on **Figure 3 Surface waters monitoring locations**
2. Downstream and upstream sites must be samples at the same time

WT24 If water quality measured at a stormwater release point specified in **Table WT1 – Contaminant release points and release limits** exceeds any release limits specified in **Table WT1 – Contaminant release points and release limits** for stormwater, the holder of this environmental authority must:

a) investigate the impact of such release on the water quality at the downstream sites listed in **Table WT4 – Surface waters monitoring locations and frequencies** and if the contaminant concentration measured at the downstream site is equal to or less than the contaminant concentration measured at the applicable upstream site, no further action is required; or

b) if the contaminant concentration measured at the downstream site is greater than the contaminant concentration measured at the applicable upstream site, complete an investigation into the potential for environmental harm and provide a written report to the administering authority, outlining:

i) details of the investigations carried out, including a review of the potential source of any elevated downstream concentrations; and

ii) actions taken to prevent environmental harm.

*Note: Where a contaminant level exceedance has occurred and is under investigation in accordance with **WT24**, no further reporting is required for subsequent exceedance events of that contaminant during the course of the investigation.*

Gladstone Healthy Harbours Partnership

WT25 The holder of this environmental authority must, when requested in writing by the administering authority, contribute to the undertaking of an ambient water monitoring program consistent with requirements of the Gladstone Healthy Harbours Partnership and in consultation with the administering authority.

Monitoring

WT26 All water quality monitoring required by this environmental authority must be:

a) performed by an appropriately qualified person(s); and
b) carried out in accordance with the methods prescribed in the most recent edition of the administering authority's Monitoring and Sampling Manual; and
c) carried out on samples that are representative of the release.

WT27 The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format with each annual return or upon request from the administering authority:

a) the date on which the sample was taken; and
b) the time at which the sample was taken; and
c) the monitoring point at which the sample was taken; and
d) the observed flow rate of the stream at which the sample was taken; and
e) the results of all monitoring and details of any exceedances of the conditions of this environmental authority.

WT28 All water quality monitoring data required under this environmental authority must be provided quarterly to the administering authority in the specified electronic format on the Queensland government's Water Tracking and Electronic Reporting System (WaTERS), or more recent version of the system, where implemented for a site.

Wastewater Management Plan

WT29 A wastewater management plan must be developed by an appropriately qualified person(s) prior to operations commencing and made available to the administering authority upon request.

WT30 The holder of this environmental authority must give due consideration to any comments, made on the wastewater management plan by the administering authority.

WT31 The wastewater management plan must include:

a) be prepared in accordance with condition WT28 and WT29; and
b) a study of the source of contaminants; and
c) a water balance model; and
d) a water management system and its expected performance; and
e) measures to manage and prevent contaminants being discharged to the receiving environment; and
f) measures to manage and prevent stormwater and stormwater runoff from contacting wastes, contaminants and process waters; and

g) stormwater diversion systems; and

h) measures to manage and prevent spillage of wastes, contaminants or other materials; and

i) measures to manage and prevent vehicles and other equipment or plant from where contaminants cannot be released into any waters, roadside cutters or stormwater drainage systems; and

j) installation of sediment control measures; and

k) contingency procedures for emergencies; and

l) a program for monitoring and review of the effectiveness of the Wastewater Management Plan; and

m) an assessment to confirm there is no conflict with the conditions of this environmental authority.

WT32 The wastewater management plan must be implemented and reviewed by an appropriately qualified person(s) annually to assess the adequacy of the plan against the requirements of the conditions of this environmental authority, ensure actual and potential environmental impacts are managed, and identify and undertake any necessary amendments to the plan aiming at a continual improvement.

WT33 Notwithstanding condition WT32, the wastewater management plan must be reviewed to encompass the stage 2 operations in full pursuant to condition WT31 and WT32 and provided to the administering authority prior to the operational commencement of stage 2.

Schedule: Waste

WS1 All waste generated in carrying out the activity must be lawfully reused, recycled or removed to a facility that can lawfully accept the waste.

WS2 Incompatible wastes must not be mixed in the same container or waste storage area.

WS3 Waste must not be burnt on site.

WS4 Records of any trade waste approval or beneficial re-use agreement must be made available for inspection on request.

Schedule: 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.

L3 Treatment and management of acid sulfate soils must comply with the latest edition of the Queensland Acid Sulfate Soil Technical Manual.

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.

The **Act** means the *Environmental Protection Act 1994*.

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

Administering authority is the agency or department that administers the environmental authority provisions under the *Environmental Protection Act 1994*.

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.

Beneficial re-use agreement means an approval for beneficial use under the *Waste Reduction and Recycling Act 2011.*

'Chemical' means:

a) an agricultural chemical product or veterinary chemical product within the meaning of the Agricultural and *Veterinary Chemicals Code Act 1994* (Commonwealth), or

b) a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council, or

c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997, or

d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers' Advisory Council and published by the Commonwealth, or

e) any substance used as, or intended for use as:

   (i) a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product, or

   (ii) a surface active agent, including, for example, soap or related detergent, or

   (iii) a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide, or

   (iv) a fertiliser for agricultural, horticultural or garden use, or

   (v) a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater, or

   (vi) manufacture of plastic or synthetic rubber.

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.

Contaminants means any prescribed water contaminants listed under Schedule 9 of the *Environmental Protection Regulations 2008.*

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

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

Effluent means treated or partially treated wastewater from processes undertaken in the chemical plants and associated environmentally relevant activities.

Environmental authority means an environmental authority issued under section 195 that approves an environmentally relevant activity applied for in an application.

Environmentally relevant activities are any activity mentioned in Schedule 2 of the *Environmental Protection Regulation 2019*.

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

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

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

Holder means any person who is the holder of, or is acting under, that environmental authority.

Incompatible waste means waste that may chemically react when:

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

2. mixed with other wastes.

LAeq 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.

LAmax,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.

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

Median means the middle value of all samples taken at that location for a period of 12 months (52 weeks).

Minimise is to reduce to the smallest possible amount or degree.

NATA means National Association of Testing Authorities.

Noxious means harmful or injurious to health or physical well-being.

Nuisance sensitive place means any of the following:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises;
b) library and educational institution (including a school, college and university);
c) childcare centre or kindergarten;
d) school or playground;
e) hospital, surgery or other medical institution;

f) an area identified under the *Nature Conservation Act 1992* as a protected area or an area identified as a critical habitat or an area of major interest in a conservation plan;
g) marine park under the *Marine Parks Act 2004*;
h) park or garden that is open to the public (whether or not on payment of an amount) for use other than for sport or organised entertainment; or
i) a place used as a workplace, an office or for business or commercial purposes and includes a place with in the curtilage of such a place reasonably used by persons at that place.

Offensive means causing offence or displeasure, is unreasonably disagreeable to the sense, disgusting, nauseous or repulsive.

Pond means a structure used for the interim storage of effluent.

Prescribed water contaminants means contaminants listed within Schedule 10 of the *Environmental Protection Regulation 2019*.

Rehabilitation means the process of reshaping and revegetating land to restore it to a stable landform and, where relevant, includes remediation of contaminated land.

Release means to:
a) deposit, discharge, emit or disturb the contaminant; or
b) cause or allow the contaminant to be deposited, discharged, emitted or disturbed; or
c) fail to prevent the contaminant from being deposited, discharged emitted or disturbed; or
d) allow the contaminant to escape; or
e) fail to prevent the contaminant from escaping.

Relevant act is defined in section 493A of the *Environmental Protection Act 1994* as an act that causes serious or material environmental harm or an environmental nuisance; an act that contravenes a noise standard; or a deposit of a contaminant, or release of stormwater run-off, mentioned in section 440ZG.

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*.

Site means the lot and plan locations to which the environmental authority relates.

Stable in relation to land, means landform dimensions are and will remain within tolerable limits now and in the foreseeable future. Issues to be properly considered in regard to whether or not the landform is stable include geotechnical stability, settlement and consolidation allowances, load bearing capacity, erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.

Stage 2 means the Alpha HPA Processing Plant shown as Stage 2, 10,000tpa facility on plan Site General Arrangement, Stage 1 and Stage 2, MC1868-G-031, Rev D dated 15.10.21 and as identified in **Figure 4 – Stage 1 and Stage 2 Diagram.**

Tolerable limits means a range of parameters regarded as being sufficient to meet the objective of protecting relevant environmental values.

Total Nitrogen (TN) means the sum of Organic Nitrogen, Ammonia Nitrogen, Nitrite plus Nitrate Nitrogen, expressed as mg/L as Nitrogen. This includes both the inorganic and organic fraction of nitrogen.

Trade Waste Infrastructure means the Trade Waste Facility operated by Gladstone Regional Council or other Third Party.

Trade waste approval means the approval given by the service provider to discharge trade waste to the provider's infrastructure.

Waste Tank means the tank identified within Figure 2 - Water Management System Process Flow Diagram which will contain contaminated water in collection for offsite disposal.

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.

Watercourse has the same meaning given in the *Water Act 2000*.

WaTERS – Water Tracking and Electronic Reporting System or subsequent updated system, used to submit monitoring data and notify the Queensland Government. [https://waters.des.qld.gov.au/] or contact psd.help@qld.gov.au

Wet Weather Day means a day which greater than 26 mm of rainfall is recorded at any rainfall measuring station recognised by the Commonwealth Bureau of Meteorology within close proximity to the site, or if no such measuring station exists, at the nearest such station to the site. The term also includes days during which recorded rainfall over the (3) preceding days exceeds a cumulative rainfall of 40 mm.

Appendices

Figure 1 – Air emission release point locations.

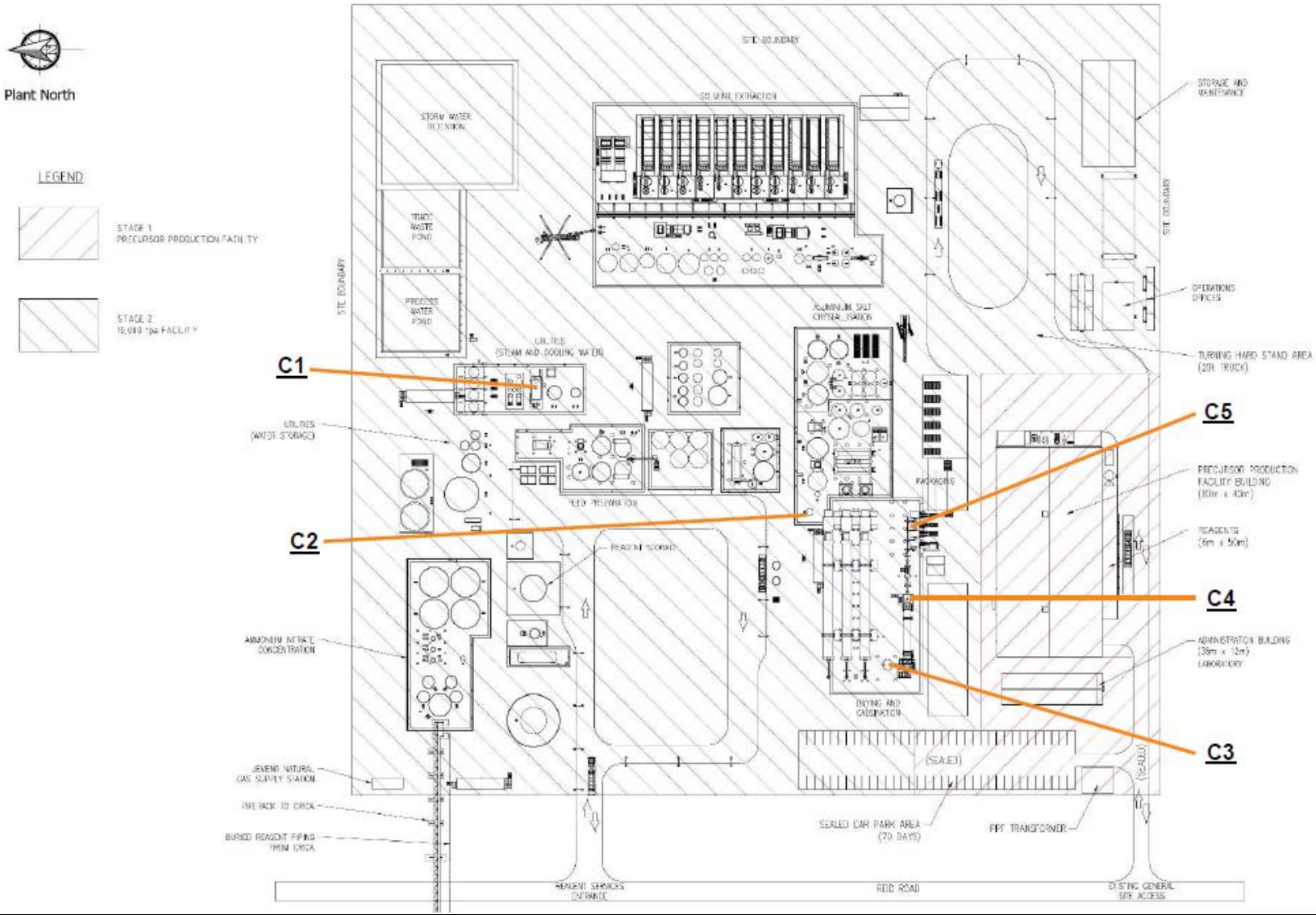


Figure 2 – Water Management System Process Flow Diagram

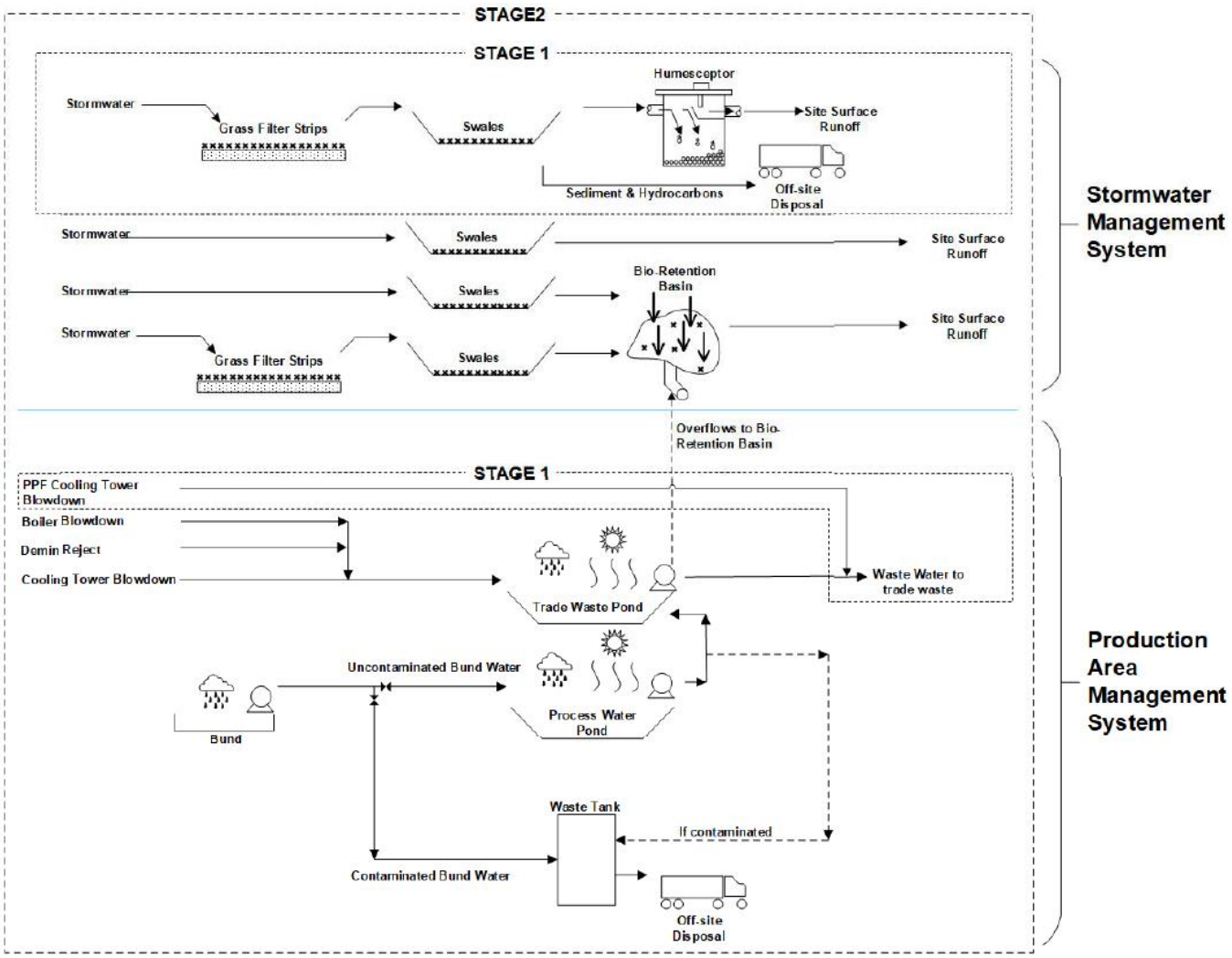
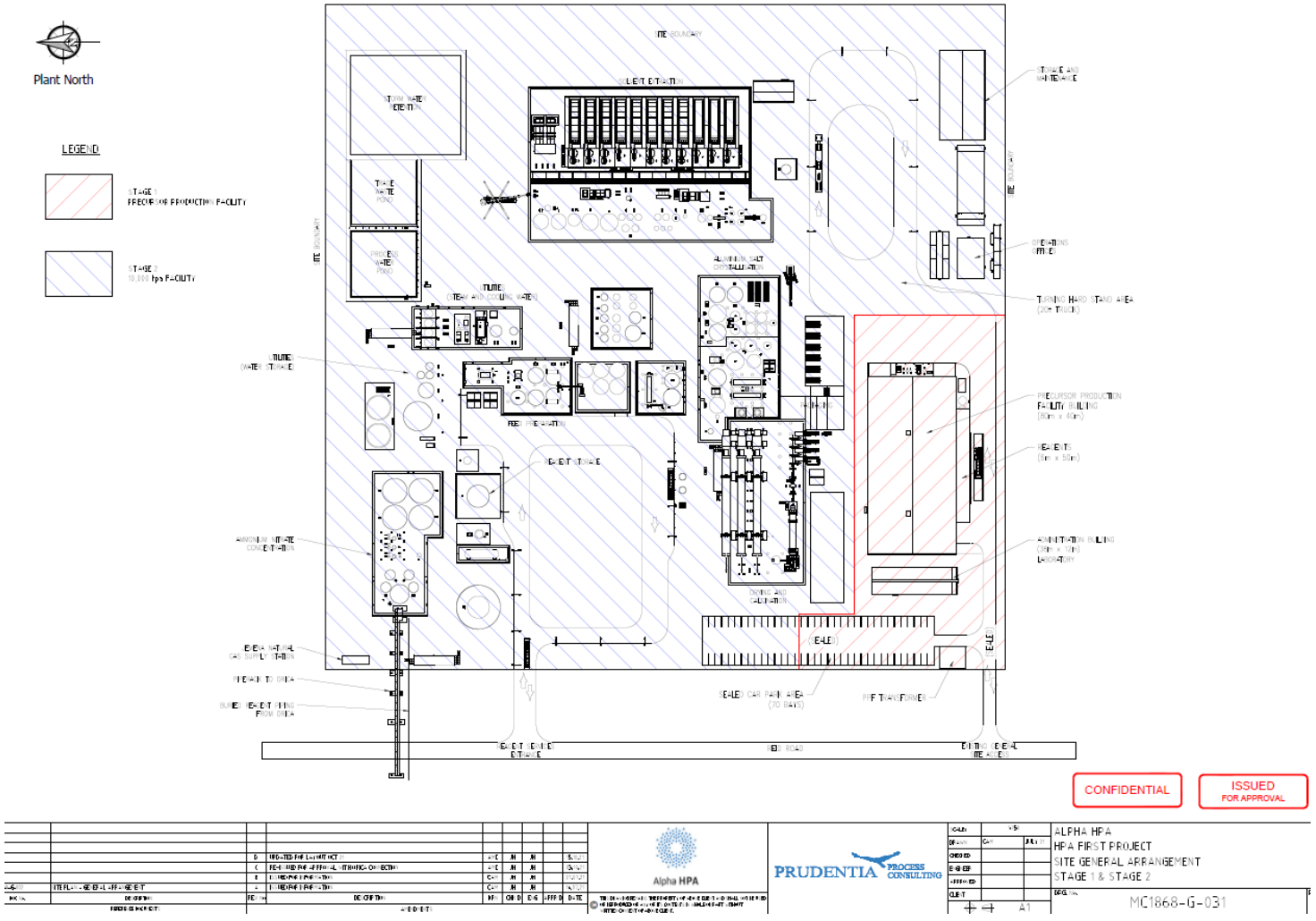


Figure 3 – Contaminant and stormwater release point locations.



Figure 4 – Stage 1 and Stage 2 Diagram



END OF ENVIRONMENTAL AUTHORITY