

DARWIN PROCESSING FACILITY: CONSOLIDATED COMMITMENTS TABLE

No.	COMMITMENT	TIMEFRAME
TERRESTRIAL ENVIRONMENTAL QUALITY		
Contaminants of Potential Concern		
1.	Removal of fly-tipped waste from the site using accredited waste specialists.	Construction Phase
2.	Inspection of disturbed areas and fly-tipped waste for the presence of asbestos; removal, transport and disposal of asbestos using licensed specialists.	Construction Phase
Acid Sulfate Soils (ASS)		
3.	<p>ASS management during clearing and earthworks will include the following:</p> <ul style="list-style-type: none"> • A geotechnical assessment of development footprint will be undertaken prior to construction, to identify areas of occurrence of ASS. • Disturbance of ASS will be avoided where possible, including constructing infrastructure on piles above ground level. • Excavated ASS to be treated during construction in accordance with requirements of the ASS Management Plan to prevent acidic fluids leaching into surface water or groundwater. 	Construction Phase
4.	Awareness training of ASS handling requirements will be provided to personnel involved with the movement of soils, particularly during the construction phase.	Construction Phase
5.	Bunds will not be constructed with material containing ASS.	Construction Phase
6.	When preparing compliant ASS treatment pads the area will be fully contained/constructed such that drainage/runoff water from the pad is directed to an appropriate receptacle for testing and treatment (if required).	Construction Phase
7.	Any spilled ASS material will be transferred to the ASS treatment pad immediately.	Construction Phase
8.	<p>Treatment of ASS and potential ASS will involve the following:</p> <ul style="list-style-type: none"> • ASS treatment pads will have a guard layer of agricultural lime applied at a nominal rate of 10kg/m²; • ASS material will be transferred to the treatment pad and placed on top of the guard layer. If ASS is to be treated in more than one layer, enough time will be allowed for validation testing and compliance of a layer before addition of extra material; • ASS material is to be spread out in windrows of 300 mm loose thickness for drying. Once dry, fine agricultural lime will be applied evenly over the surface and thoroughly mixed into the soil; • The Acid Neutralising Value of the agricultural lime supplied may not be 100% (as assumed for pure lime) and will be identified from documentation 	Construction Phase

No.	COMMITMENT	TIMEFRAME
	<p>provided by the lime supplier. If less than 100%, a correction factor of 100/ Acid Neutralising Value will be applied to reach the equivalent of pure fine agricultural lime; and</p> <ul style="list-style-type: none"> • Treated ASS shall not be removed from the site until validation monitoring indicates that performance indicators have been met. 	
9.	<p>All stormwater, retained water or ASS leachate from stockpiles or other exposed areas shall be:</p> <ul style="list-style-type: none"> • Diverted to a retention pond for monitoring and treatment (if required); • Monitored for changes in pH, water level, Electrical Conductivity, total iron and aluminium concentrations; • Treated with hydrated lime for pH adjustment of water if required. 	<p>Construction Phase Operation Phase</p>
10.	<p>Soil erosion resulting in disturbance of ASS will be mitigated by the following:</p> <ul style="list-style-type: none"> • Implementation of the Erosion and Sediment Control Plan (ESCP) (Contained within Appendix O) and Water Management Procedure (EP-11) in the EMP (Appendix D); • Vegetation clearing will be undertaken in stages and in dry season conditions wherever possible; • Erosion protection measures (bunding, spoon drains, silt fencing and sediment ponds) will be installed to contain any erosion. 	<p>Construction Phase Operation Phase</p>
11.	<p>Lime will be stored in a containment area adjoining the treatment pad (so that any discharge from the area is directed into the treatment pad). Hydrated lime will be stored in appropriate weatherproof storage.</p>	<p>Operation Phase</p>
Contamination		
12.	<p>Implement the Hazardous Material Management Procedure (EP-14), in the EMP (Appendix D), including the following:</p> <ul style="list-style-type: none"> • Ensure stockpiles of bulk materials are located well clear of any waterway or drainage systems. • Construct bunds around fuel and chemical storage areas according to Australian Standards 1940: 2017 – The Storage and Handling of Flammable and Combustible Liquids (unless quantity of the liquid stored is within that allowable as minor storage), environmental protection licence or Major Hazard Facility licence requirements. • Train personnel in implementation of safe work practices to minimise risks and impacts of spillage of fuels, chemicals and other contaminants. 	<p>Construction Phase Operation Phase</p>

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> • Train personnel in incident reporting and emergency management procedures and encourage the reporting of issues and near misses. • Record and report all POL, chemical and hazardous substance spills. • Ensure personnel have access to spill kits that contain an absorbent material, clearly marked oily waste disposal drum and a shovel. • In the event of a chemical or hazardous substance spill, containment measures should be enacted and Material Safety Data Sheet (MSDS) requirements complied with. • In the event of a POL spill less than 20L on soil, remove the soil and dispose of in oily waste disposal drum. • In the event of a POL spill of between 20 and 80L, soak up as much as possible using absorbent, and turn/aerate the soil to allow natural processes (i.e. aeration and microbial systems) to breakdown the organic compounds (i.e. hydrocarbons). Remove contaminated soil if the spill occurs in the vicinity of drainage lines and waterways. If on a hard surface such as road or concrete, use absorbent and dispose in the oily waste disposal drum. • In the event of a POL spill greater than 80L, all contaminated soil is to be removed, and disposed of in a clearly marked oily waste disposal drum. • MSDSs are to be located within storage areas, as well as centrally located and readily available to staff for use in case of an emergency. MSDSs are to remain current at all times. • Undertake validation sampling of soil if the spill, or combined record of spills, is greater than 80L to confirm all contaminated soil has been removed. • All contaminated soil and absorbent in the oily/chemical waste disposal drum should be disposed of by a licensed waste contractor. • Keep sites free from build up of waste materials by directing regular clean ups; • Avoid storing large volumes of materials on site; • Ensure equipment and vehicles have been washed down and inspected for POL leaks, prior to being transported to work sites; 	

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> Ensure herbicides used for weed control are registered and only applied by appropriately trained personnel. 	
TERRESTRIAL FLORA		
Vegetation Clearing		
13.	Vegetation clearing to be undertaken only in approved areas.	Construction Phase
14.	Implement the Ground Disturbance and Vegetation Clearing Procedure (EP-05) contained within the EMP (Appendix D).	Construction Phase
15.	<p>A Ground Disturbance Permit system to be implemented to ensure that no land clearing is undertaken without first ensuring:</p> <ul style="list-style-type: none"> The proposed clearing has been approved; Conditions in relation to soil and subsoil recovery, weed management, fauna clearing and other requirements have been assigned; Approved permits are assessed for compliance with permit conditions; and Proposed area of clearing is demarcated prior to clearing to avoid excessive or prohibited clearing. 	Construction Phase
Conservation Significant Flora		
16.	<p>Prior to commencement of construction review the development envelope of the Project to ensure populations of the following flora species are excluded where possible:</p> <ul style="list-style-type: none"> <i>Cycas armstrongii</i> (VU); <i>Tricoryne elatior</i> (NT); <i>Polymeria pusila</i> (DD); and <i>Buchnera sp. ciliate bracts</i> (DD). 	Construction Phase
Surface Water Flow Alteration		
17.	<p>Implementation of the ESCP (Contained within Appendix O) and Implementation of the Water Management Procedure (EP-10) contained within the EMP (Appendix D) including:</p> <ul style="list-style-type: none"> Use of swales and sediment basins where required; and Use of minor diversions where required. <p>Maintain natural flow paths wherever possible.</p>	Construction Phase Operation Phase
Uncontrolled Fire		
18.	<p>Implementation of the Fire management Plan (Appendix K) including:</p> <ul style="list-style-type: none"> Mine personnel will be trained in fire protection; The site will be equipped with fire suppression equipment; and A hot work permit system will be implemented. 	Operation Phase

No.	COMMITMENT	TIMEFRAME
Weeds		
19.	Implementation of the Weed Management Procedure (EP-08) contained in the EMP (Appendix D) including: <ul style="list-style-type: none"> • Review existing weed mapping and signpost areas of significant weed infestation; • Educate mine personnel on the identification and management of key weed species; • Implement weed hygiene procedures; • Assess risk of spreading weeds with the Ground Disturbance Permit System in the Ground Disturbance and Vegetation Clearing Procedure (EP-05) within the EMP (Appendix D); and • Routinely undertake site infestation control measures and monitoring of infestations. 	Operation Phase
Dust Emissions		
20.	Implementation of the Dust Emission Management Procedure (EP-11) contained within the EMP (Appendix D) including: <ul style="list-style-type: none"> • Regular watering of active, potentially dust generating areas and stockpiles; • Efficient and effective machinery operation; • Limit vegetation and soil clearing; and • Biannual photographic monitoring of vegetation health at site. 	Operation Phase
21.	Implementation of the Dust Emission Management Procedure (EP-11), in the EMP (Appendix D) including: <ul style="list-style-type: none"> • Maintain the concentrate at Dust Extinction Moisture level; • Use of water sprays or misting nozzles during stacking operations; • Misting sprays on reclaim feeders; • Fogging sprays at transfer points; • Physical enclosure of transfer points and operating equipment; • Select operational procedures to take place inside sheds; • Open areas not required for vehicle access for operations will be sprayed with hydro mulch or sealed through the application of dust suppressant chemicals; and Active road surfaces sealed, treated with a dust suppressant chemical or sprayed with water.	Operation Phase
Contaminated Water		
22.	Contaminated water impact on soil and vegetation will be mitigated by the following: <ul style="list-style-type: none"> • Water storage facilities and /or hazardous materials will be restricted to designated impermeable storage areas located at least 50m from any vegetation; 	Construction Phase Operation Phase

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> Storage areas will be bunded and have appropriate drainage systems designed to capture any potential spills or leaks; and Water used for dust suppression will be of a quality that does not negatively impact flora and vegetation. 	
TERRESTRIAL FAUNA		
Vegetation Clearing		
23.	Implement the Ground Disturbance and Vegetation Clearing Procedures (EP-05) within the EMP (Appendix D) and BMP (Appendix L), including: Pre-clearance fauna trapping and translocation.	Construction Phase
24.	To mitigate, or avoid where possible, the loss of fauna habitat through vegetation clearing by ensuring that: <ul style="list-style-type: none"> Habitat to be cleared is well represented elsewhere on the Middle Arm Peninsula, and in the region. Implement the Ground Disturbance and Vegetation Clearing Procedures (EP-05) within the EMP (Appendix D) and BMP (Appendix L), including: Development and implementation of an internal Ground Disturbance Permit system, whereby no land clearing is undertaken without completing a series of checks to ensure: <ul style="list-style-type: none"> The proposed clearing has been approved; Conditions in relation to fauna clearing and other requirements have been assigned. Approved permits are assessed for compliance with permit conditions. 	Construction Phase
Uncontrolled Fire		
25.	Implementation of the Fire Management Plan (Appendix K) including: <ul style="list-style-type: none"> Mine personnel will be trained in fire protection; The site will be equipped with fire extinguishers and other fire prevention measures; A hot work permit system will be implemented; and Grassy weeds will be controlled.	Operation Phase
Impacts to Fauna		
26.	To mitigate, or avoid where possible, incidents of vehicles striking fauna by ensuring the following: <ul style="list-style-type: none"> Maintain suitable speed limits; Erect warning signs in any locations where fauna are regularly sighted; and 	Operation Phase

No.	COMMITMENT	TIMEFRAME
	Ensure employee and local contractor awareness of local fauna and encourage reporting of sightings and any incidents of vehicle strike.	
27.	To minimise likelihood of attracting introduced fauna: <ul style="list-style-type: none"> • Ensure all putrescible waste is securely stored until removed from site • Monitor sightings of feral fauna and undertake control measures in consultation with stakeholders. 	Construction Phase Operation Phase
28.	To mitigate, or avoid where possible, the likelihood of fauna entrapment in infrastructure by the ensuring the following: <ul style="list-style-type: none"> • Fence settling ponds <ul style="list-style-type: none"> ○ Install fauna egress points in water storage dams and / or sumps • Ensure vegetation around barbed wire fences is kept to a minimum • Avoid the use of barbed wire in fences where possible. • Barbed wire fences will be regularly inspected for trapped animals (particularly bats), and mitigation measures explore, including: <ul style="list-style-type: none"> ○ Covering top strand of barbed wire with a PVC pipe shroud; and Tying flag tape to barbed wire.	Operation Phase
Light and Noise		
29.	All light sources will be aimed towards work areas and away from surrounding habitat, using light shields as necessary to minimise light spill.	Operation Phase
HYDROLOGICAL PROCESSES		
General		
30.	To avoid site flooding or inundation from storm surge: <ul style="list-style-type: none"> • Primary infrastructure will be located in areas above the 1 % AEP flood levels. • Model 0.1% AEP inundation and flood levels and locate processing plant infrastructure above these levels; and • Implementation of a diversion bund around site infrastructure. 	Construction Phase Operation Phase
31.	Retain as much of Lot 1817 in a condition that will assist recharge of aquifer. This includes retaining (and/or enhancing through site rehabilitation activities) existing vegetation and soils.	Construction Phase
32.	Retain as much of the existing laterite substrate (potential aquifer) as possible within the Project area to avoid significant interference with the structure of the aquifer.	Construction Phase
33.	Rehabilitate sites at the completion of construction where they are not required for operations, including replacement of subsoils and topsoils as appropriate and undertake ripping and seeding with local provenance native taxa to enhance potential infiltration.	Operations Phase
INLAND WATER ENVIRONMENTAL QUALITY		
Contamination		

No.	COMMITMENT	TIMEFRAME
34.	<p>Implement the Hazardous Material Management Procedure (EP-13) , within the EMP (Appendix D), to mitigate, or avoid where possible, water pooling, sedimentation and contamination by including the following:</p> <ul style="list-style-type: none"> • Ensure stockpiles of bulk materials are located well clear of any waterway or drainage systems; • Train operators in implementation of safe work practices to minimise risks and impacts of spillage of fuels, chemicals and other contaminants; • Train operators in incident reporting and emergency management procedures and encourage the reporting of issues and near misses; and • Construct bunds around fuel and chemical storage areas according to <i>Australian Standards 1940:2017</i> (unless quantity of the liquid stored is within that allowable as minor storage). 	Operation Phase
35.	<p>Implement the Hazardous Material Management Procedure (EP-13) , within the EMP (Appendix D), to mitigate, or avoid where possible, contamination of surface and groundwater systems by including the following:</p> <ul style="list-style-type: none"> • Record and report all POL, chemical and hazardous substance spills • Ensure personnel have access to spill kits that contain an absorbent material, clearly marked oily waste disposal drum and a shovel. • In the event of a POL spill less than 20L on soil, remove the soil and dispose of in oily waste disposal drum. • In the event of a POL spill of between 20 and 80L, soak up as much as possible using absorbent, and turn/aerate the soil to allow natural processes (i.e. aeration and microbial systems) to breakdown the organic compounds (i.e. hydrocarbons). Remove contaminated soil if the spill occurs in the vicinity of drainage lines and waterways. If on a hard surface such as road or concrete, use absorbent and dispose in the oily waste disposal drum. • In the event of a POL spill greater than 80L, all contaminated soil is to be removed, and disposed of in a clearly marked oily waste disposal drum. • Undertake validation sampling of soil if the spill, or combined record of spills, is greater than 80L to confirm all contaminated soil has been removed 	<p>Construction Phase</p> <p>Operation Phase</p>

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> • All contaminated soil and absorbent in the oily waste disposal drum should be disposed of at a designated oily waste disposal site approved by Darwin authorities. • If pooled water becomes contaminated, e.g. through a diesel spill, ensure it is contained and removed (and not discharged to sewerage system or natural water courses) • In the event of a chemical or hazardous substance spill ensure all requirements of the Material Safety Data Sheet (MSDS) are complied with • MSDSs are to be located within storage areas, as well as centrally located and readily available to staff for use in case of an emergency. MSDSs are to remain current at all times. • Any spillage of wastes, contaminants or other materials shall be cleaned up as quickly as practicable using procedures that prevent contaminants or material being transferred to the stormwater drainage system; and • The stormwater system for the site shall be inspected regularly to identify any failures and, if necessary, repairs shall be undertaken. <p>Chemical storage and handling areas shall be bunded and shall have drainage lines separate from the stormwater drainage, to reduce the likelihood of chemical contamination of stormwater.</p>	
MARINE ENVIRONMENTAL QUALITY		
Outfall Discharge		
36.	<p>To minimise the discharge of wastewater through outfalls by including the following:</p> <ul style="list-style-type: none"> • Outfall location to be selected based upon dispersion modelling to ensure dilutions are adequate to reduce concentrations within small mixing zone; • Implementation of the Marine Environmental Quality Monitoring and Management Plan (MEQMMP) (Appendix R); • Develop wastewater treatment plans and quality control processes to support operation of the Processing Facility; • Obtain and comply with Mixing Zone Licence Conditions; and • Obtain and comply with Waste Discharge Licence Conditions. 	Construction Phase
Non-process Waste		
37.	Appropriate Domestic and Industrial Waste Management Procedure (EP-14), within the EMP (Appendix D), to be implemented for the Site:	Operation Phase

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> • Recyclable materials, including cardboard, paper, glass, batteries, waste hydrocarbon drums and scrap metal, will be recycled wherever possible; • Housekeeping inspections of all work areas will be undertaken weekly; • Littering on site is prohibited and work and office sites are to be kept clean and tidy; • Rubbish containers are to be carried in all vehicles and provided at all work area; • Waste management will be addressed in the site induction. 	
Spills		
38.	<p>To avoid chemical spills implement the following:</p> <ul style="list-style-type: none"> • Implement management procedures detailed in Hazardous Material Management Procedure (EP-13), contained within the EMP (Appendix D). <ul style="list-style-type: none"> ○ Spill control equipment will be stored in critical locations to allow for a quick response to spills; ○ Spillages will be contained and appropriately managed by the use of absorbent material and the excavation and removal of contaminated soil to an off-site licensed facility. ○ Competency based Spill response training to be delivered to relevant personnel. • Implementation of the MEQMMP (Appendix R). 	Operation Phase
Sedimentation		
39.	<p>To minimize, or avoid where possible, the sedimentation impacts from clearing by including the following:</p> <ul style="list-style-type: none"> • Limit clearing of mangrove areas to the minimal requirements • Implement management procedures detailed in EMP (refer to Ground Disturbance and Vegetation Clearing Procedure (EP-05) contained within the EMP (Appendix D). <ul style="list-style-type: none"> ○ Implementation of appropriate site drainage to avoid or mitigate sedimentation impacts during the construction phase of the Project; ○ The GDP application will include risk based assessment of all environmental risks and identify controls to reduce the impacts of ground disturbance; ○ An estimate of the area to be disturbed and topsoil volumes to be moved and stored should be included in the GDP request submission where possible; ○ Lay down, parking and other storage areas will be located in approved GDP 	Construction Phase

No.	COMMITMENT	TIMEFRAME
	<p>areas only. Where possible, existing cleared areas will be used for laydown areas. Vegetation clearing for these areas will be avoided where possible; and</p> <ul style="list-style-type: none"> ○ Topsoil and subsoil will be stripped prior to earthworks and managed in accordance with EP-09 Topsoil Management of the EMP (Appendix D). 	
40.	<p>To avoid the risk of ASS from construction of the outfall pipeline, include the following:</p> <ul style="list-style-type: none"> • Avoid excavation of ASS as part of the installation of the outfall pipeline. • Should ASS be inadvertently liberated, implement protocols of the ASS Management Plan. 	Construction Phase
BENTHIC HABITAT AND COMMUNITIES (BHC)		
Discharge Pipeline		
41.	Undertake a survey of the pipeline route prior to installation.	Construction Phase
42.	Implement EMP to minimise risk of unplanned disturbance on BHC during pipeline installation.	Construction Phase
43.	Locate pipeline in area of least sensitive benthic communities and utilise existing disturbed areas to locate pipeline where possible.	Construction Phase
44.	Avoid high value BHC by using high resolution BHC validation mapping of pipeline corridor.	Construction Phase
Wastewater Discharge		
45.	<p>Obtain and comply with the following:</p> <ul style="list-style-type: none"> • Mixing Zone Licence Conditions; and • Waste Discharge Licence Conditions. 	Construction Phase Operation Phase
46.	Detailed high resolution BHC mapping of proposed outfall location, mixing zone and surrounding sensitive areas to ensure that the outfall location is selected based upon suitable void of 250 m minimum to the nearest sensitive hard substrate communities.	Construction Phase
47.	Implementation of the Marine Environmental Quality Monitoring and Management Plan.	Construction Phase Operations Phase
Stormwater Erosion		
48.	<p>To avoid or contain erosion, implement the:</p> <ul style="list-style-type: none"> • ESCP (Contained within Appendix O); • Water Management Procedure (EP-10); and • erosion protection measures (bundling, spoon drains, silt fencing and sedimentation ponds) to avoid or contain erosion. 	Construction Phase Operations Phase
49.	Establish buffer zones between the intertidal BHC and the adjacent Development Envelope.	Construction Phase
50.	Maintain natural groundwater seepage and stormwater runoff flows into the adjacent intertidal zone.	Construction Phase
51.	Vegetation clearing to be undertaken in stages and in dry season conditions wherever possible.	Construction Phase Operations Phase
Contamination		

No.	COMMITMENT	TIMEFRAME
52.	<p>To minimise, or avoid where possible, the risk of hazardous chemical spills and leaks impacting BHC by the following:</p> <ul style="list-style-type: none"> • Implement the Hazardous Material Management Procedure (EP-13). • Materials management to be in accordance with <i>Australian Standard 1940: The Storage and Handling of Flammable and Combustible Liquids</i>, MSDS, licences and permit requirements. • Spill response protocols developed to ensure uncontained materials are addressed prior to entering the marine environment. 	<p>Construction Phase</p> <p>Operations Phase</p>
Non-process Waste		
53.	<p>Appropriate Domestic and Industrial Waste Management Procedure (EP-14) to be implemented for the Site.</p> <ul style="list-style-type: none"> • Recyclable materials, including cardboard, paper, glass, batteries, waste hydrocarbon drums and scrap metal, will be recycled wherever possible; • Housekeeping inspections of all work areas will be undertaken weekly; • Rubbish containers are to be carried in all vehicles and provided at all work area; • Waste management will be addressed in the site induction. 	<p>Construction Phase</p> <p>Operations Phase</p>
MARINE FAUNA		
Non-process Waste		
54.	<p>To mitigate, or avoid where possible, litter that is generated during both the construction and operation phases of the Project in accordance Domestic and Industrial Waste Management Plan (EP-14) and compliance with the requirements of the <i>Marine Pollution Act</i> (NT) and the <i>Waste Management and Pollution Control Act</i>.</p>	<p>Construction Phase</p> <p>Operations Phase</p>
Habitat Quality		
55.	<p>Protect habitat quality from increased sedimentation impacts by implementing the following:</p> <ul style="list-style-type: none"> • Implementation of the ESCP (contained within Appendix O) and Water Management Procedure (EP-10) in the EMP to avoid erosion. • Vegetation clearing to be undertaken in stages and in dry season conditions wherever possible. • Erosion protection measures (bundling, spoon drains, silt fencing and sediment ponds) will be installed to contain any erosion. 	<p>Construction Phase</p> <p>Operations Phase</p>
Chemical Spills and Leaks		
56.	<p>To mitigate, or avoid where possible, leaks and spills of hazardous substances by implementing the following:</p>	<p>Construction Phase</p> <p>Operations Phase</p>

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> • Implement the Hazardous Material Management Procedure (EP-13) , within the EMP (Appendix D). • Construct containment areas compliant with appropriate standards well clear of any waterway or drainage system. • Educate workforce on reporting and management of spillages. • Actively manage all spillages and recover contaminated material. • Construct bunding and pipelines with spill protection. • Erosion protection measures (bunding, spoon drains, silt fencing and sediment ponds) will be installed to contain any erosion. • Rehabilitation of disturbed areas not required for infrastructure • Undertake regular inspections. • Remediate contaminated soils in accordance with applicable regulations. 	
57.	Detailed high resolution BHC mapping survey of pipeline corridor and outfall area is required to ensure avoidance of higher value BHC that may be of significance to marine fauna.	Construction Phase
Wastewater Discharge		
58.	<p>To mitigate, or avoid where possible, the impact on marine habitat quality from treated wastewater outfall by implementing the following:</p> <ul style="list-style-type: none"> • Design of the Wastewater Treatment Plant to criteria that: <ul style="list-style-type: none"> ○ meets the ANZG (2018) 95% SPL default guideline values ○ do not result in an accumulation of contaminants over time • Discharge only during ebb tides to ensure maximum dilutions are achieved and marine environmental impacts do not arise upstream during flood tides • Selection of a wastewater ocean outfall locations that ensures an appropriate level of ecological protection can be achieved • Monitoring water quality parameters at the ocean outfall • Updating predictive numerical modelling of water quality associated with the outfall using monitoring data 	Operations Phase
AIR QUALITY AND GREENHOUSE GASES		
Fugitive Dust		

No.	COMMITMENT	TIMEFRAME
59.	Implement the Dust Emission Management Procedures (EP-12) within the EMP (Appendix D) including: <ul style="list-style-type: none"> • Regular watering of active areas and stockpiles areas. • Use of dust control equipment and housekeeping practices within the Processing Facility. • Vehicle speeds on site roads will be restricted. 	Operations Phase
Emissions		
60.	In order to minimise CO ₂ emissions from mobile plants TNG will implement the Greenhouse Gas Emissions Procedures (EP-13) within the EMP (Appendix D).	Operations Phase
61.	In order to reduce stack emissions TNG will: <ul style="list-style-type: none"> • Use scrubbers for the control of atmospheric emissions from the Project stack sources, including stacks in the following process areas: <ul style="list-style-type: none"> ○ Oxide roasting; ○ Acid regeneration; and ○ Tail gas scrubber. • Insulate key process vessels and equipment to minimise energy loss. • Comply with requirements of the Environmental Protection Licence, where applicable. 	Construction Phase Operations Phase
62.	In order to minimise indirect CO ₂ emissions from use of electricity TNG will: <ul style="list-style-type: none"> • Implement the Greenhouse Gas Emissions Procedures (EP-13) within the EMP (Appendix D), including: <ul style="list-style-type: none"> ○ Energy saving devices will be used where possible and based on the energy star ranking standard. • Consider the use of alternative energy sources such as solar panels where feasible, as the Project progresses; and • Insulate key process vessels and equipment to minimise energy loss. 	Construction Phase Operations Phase
SOCIAL, ECONOMIC AND CULTURAL SURROUNDINGS		
Employment		
63.	To promote the employment of local personnel: <ul style="list-style-type: none"> • wherever possible and where necessary skills are available. • Develop an Employment Strategy and Local Recruitment Policy. • Establish a skill training scheme. • Establish partnerships with local businesses, such as food catering companies, transport companies and a range of other service providers. 	Construction Phase Operations Phase
Public Safety		
64.	In the interest of maintaining public safety: <ul style="list-style-type: none"> • Install a boundary fence, entry gate, gate house and signage to deter unauthorised access to the site • Develop a Supply Chain Management Plan covering a wide range of transportation and 	Construction Phase Operations Phase

No.	COMMITMENT	TIMEFRAME
	<p>supply chain matters, including public safety along transport routes and managing third party personnel conduct at work.</p> <ul style="list-style-type: none"> • Ensure emergency exit points are situated at strategic locations around the site, for use in an emergency. • Ensure sufficient lighting and signage is installed to avoid injury to public within the vicinity of the site. 	
Contamination		
65.	<p>To minimise, or avoid where possible, the contamination of the Elizabeth River:</p> <ul style="list-style-type: none"> • Implement mitigating strategies detailed in chapter 7.5 – Hydrological Processes • Implement mitigating strategies detailed in chapter 7.7 – Marine Environmental Quality • Ensure Elizabeth River Boat Ramp access is maintained at all times • Develop a Community and Stakeholder Engagement Plan, including mechanisms for providing information on Project activities and for identifying and addressing ongoing concerns throughout the life of the Project • Implement a Complaints and Grievance Protocol, incorporating prompt mitigation of concerns as appropriate. 	<p>Construction Phase Operations Phase</p>
Noise		
66.	<p>To minimise, or avoid where possible, noise impacts by:</p> <ul style="list-style-type: none"> • Implementing mitigation strategies detailed in the Noise Management EP-21 from the EMP (Appendix D). • Provide an induction to construction personnel (including sub-contractors) addressing responsibilities with regard to noise management outlined in the EMP (Appendix D). • Ensure truck drivers are informed of designated vehicle routes, parking locations, delivery hours and minimising engine braking and idling. • Provide education of supervisors, operators and sub-contractors on the need to minimise noise through toolbox meetings. • Avoid noisy plant working simultaneously where possible. • Ensure all equipment is equipped with appropriate noise controls (e.g. mufflers, silenced exhausts, acoustic enclosures, flashing lights as an alternative to revising beepers) and equipment is shut down and not left idling when not in use. 	<p>Construction Phase Operations Phase</p>

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> • Ensure equipment is operated in the correct manner and adequately maintained - including replacement of engine covers, tightening of rattling components, repair of leakages in air lines and shutting down equipment not in use. • Consider the use of temporary solid screens for mitigation of noisy stationary equipment. • Consider the use alternatives to 'beeper' style reversing alarms, such as broadband style alarms (or quacker alarms). • Establish a Complaints and Grievance Protocol to address noise complaints 	
Traffic		
67.	<p>To minimise, or avoid where possible, impacts to traffic by:</p> <ul style="list-style-type: none"> • Developing a Traffic and Transport Management Plan (Draft version included as Appendix Y. This document will be finalised as part of final design stage of the Project). • Design site access and egress to ensure safety is maintained for TNG staff and public road users. • Liaise with appropriate regulators to ensure adequate signage is installed to notify public road users of trucks entering and exiting the site. • Provide a bus service to and from the site for staff, reducing traffic volumes on roads in the vicinity of the Project. • Investigate options of utilising existing infrastructure for 'Park and Ride' locations. • Review the potential for cyclist infrastructure to provide a safe link for staff travelling to and from the site by bicycle. • Develop safe and efficient parking on the site. • Maximise the length of the proposed rail siding line to minimise the potential for delay at the level crossings. • Liaise with rail providers to review timing of rail movements to minimise impact on road traffic as much as practicable. 	<p>Construction Phase</p> <p>Operations Phase</p>
Visual Amenity		
68.	<ul style="list-style-type: none"> • Ensure core Processing Facility infrastructure is constructed on the southern peninsula of the site, reducing visual impacts from Palmerston and the Elizabeth River Boat Ramp. 	<p>Construction Phase</p> <p>Operations Phase</p>
69.	<p>Maintain or establish the following vegetation:</p> <ul style="list-style-type: none"> • Screening vegetation along Channel Island Road wherever possible. • Mangrove belt around site boundary 	<p>Construction Phase</p> <p>Operations Phase</p>

No.	COMMITMENT	TIMEFRAME
	<ul style="list-style-type: none"> Landscaping around site to improve amenity. 	
Light		
70.	<p>To mitigate light impacts:</p> <ul style="list-style-type: none"> Design lighting in accordance with Australian Standard 4282:1997 '<i>Control of the obtrusive effects of Outdoor Lighting</i>' Install directional lighting wherever possible to reduce 'light spill' effects. Establish a Complaints and Grievance Protocol to capture any issues related to light impacts from the Project. 	<p>Construction Phase</p> <p>Operations Phase</p>
Cultural Heritage		
71.	<p>To protect cultural heritage values by:</p> <ul style="list-style-type: none"> Including management of Cultural Heritage values into the EMP (refer to Aboriginal and Cultural Heritage Procedure (EP-04) in the EMP (Appendix D). Develop a Code of Conduct for workers and inductions that cover awareness and protection of heritage values. In the event that any skeletal remains are unearthed TNG will stop work and immediately report such disturbance to the Northern Territory police, and to the Director Heritage Branch, Department of Tourism and Culture (refer to the ERP – Appendix AA). Any previously unrecorded archaeological sites encountered will be reported to the Northern Territory Heritage Branch for advice on how to respond. Procedures for unexpected heritage finds will be included in the EMP (refer to Aboriginal and Cultural Heritage Procedure (EP-04) in the EMP (Appendix D). 	<p>Construction Phase</p> <p>Operations Phase</p>
Stakeholders		
72.	<ul style="list-style-type: none"> Establish a process of stakeholder engagement and participatory planning with the Larrakia people. Engage with relevant Indigenous stakeholders to ensure traditional activities in nearby areas are understood and not impacted. Implement mitigating strategies for environmental factors applicable to the Project to ensure no downstream impacts occur to heritage items and values as a result of Project activities. 	<p>Construction Phase</p> <p>Operations Phase</p>
73.	Ensure soil material originating from the site remains within the site and is not disposed off-site.	Construction Phase
74.	Comply with the conditions and requests of the Authority Certificate obtained from AAPA.	<p>Construction Phase</p> <p>Operations Phase</p>

No.	COMMITMENT	TIMEFRAME
HUMAN HEALTH AND SAFETY		
Hazardous Materials		
75.	<p>To avoid the release of hazardous materials through road or rail accident:</p> <ul style="list-style-type: none"> • Ensure all vehicles are licensed and carry appropriate equipment to respond to a spill, including PPE. • Apply <i>Australia Dangerous Goods Code (ADG Code) for Transport by Road and Rail</i> requirements to all transport activities. • Establish designated transport routes to avoid local residential areas. • Conduct and document a safety assessment in relation to the operation of the facility, which involves a comprehensive and systematic investigation and analysis of all aspects of risks to health and safety that could occur in the operation of the Major Hazard Facility. • Implement control measures that eliminate or minimise the risk of a major incident occurring at the Project. • Establish a Safety Management System (SMS) for the operation of the Project. • Prepare a Safety Case for the Facility that demonstrates that the Project SMS will control risks arising from major incidents and hazards that could cause a significant impact. The Safety Case must demonstrate the adequacy of the measures to be implemented by the operator to control risks associated with the occurrence of major incidents. 	Operations Phase
76.	<i>Australian Dangerous Goods Code</i> requirements for storage compatibility will be adhered to.	Operations Phase
Personnel		
77.	Staff will be provided with sufficient training to competently and safely handle hazardous materials, respond to spill incidents and a sound understanding of PPE requirements and equipment handling.	Operations Phase
78.	<p>To minimise personnel exposure to climatic elements:</p> <ul style="list-style-type: none"> • All personnel (including contractors and office workers) will be trained in the risks associated with climate exposure, the signs and symptoms of over-exposure to heat and its effects (e.g. dehydration) and what to do in case of an emergency. First-aid facilities will be 	Construction Phase Operations Phase

No.	COMMITMENT	TIMEFRAME
	<p>equipped to provide at least an initial response to incidents of this type.</p> <ul style="list-style-type: none"> • Drinking water will be available across the site at clearly signposted locations. • To reduce sun exposure appropriate PPE (e.g. long sleeved shirts, trousers, hats and/or helmets) and sunscreen will be made available and their use made compulsory. • Develop and implement Cyclone Response Plan. 	
Explosions		
79.	<p>To avoid an explosion on site:</p> <ul style="list-style-type: none"> • Design and construction of the Facility in accordance with Australian and International Standards, Building Codes and Licence requirements. • Control of emission of flammable vapours, gases and mists (e.g. through the use of enclosed container and transfer systems, vapour recovery connections, sufficient ventilation). • Elimination of ignition sources from hazardous areas. • Installation of leak detection systems. • Storing the minimum required quantities of flammable / explosive materials. • Control of 'hot work' through an established permitting system. • Good housekeeping practices on site. • Implement the ERP, as required. 	<p>Construction Phase Operations Phase</p>
Uncontrolled Fire		
80.	<p>To minimise, or avoid where possible, the potential for a fire:</p> <ul style="list-style-type: none"> • Implement the ERP (Appendix AA), as required. • Implement the FMP (Appendix K). • Ensure fire response equipment (e.g. fire breaks, extinguishers, fire reels) is available, operational and maintained. Fire extinguishers to be used in accordance with <i>Australian Standard 1841.1-2007 (Portable Fire Extinguishers – General Requirements)</i>. • Fire hydrants will be connected on a ring main throughout the Facility, designed as per <i>Australia Standard 2419.1-2005 (Fire Hydrant Installations)</i>. Fire water will be sourced from the fire water surge tank. • A foam injection and deluge system will be required for the solvent extraction mixer settling units where the organic solution is 	<p>Construction Phase Operations Phase</p>

No.	COMMITMENT	TIMEFRAME
	<p>used. The foam deluge system shall be designed as per <i>Australian Standard 2118.3-2010 (Automatic Fire Sprinkler Systems – Deluge Systems)</i>.</p> <ul style="list-style-type: none"> • Use of firewalls between high risk units where appropriate. • Personnel trained in the use of fire response equipment. • ‘Hot work’ permit system in operation. Where there is a perceived high risk (e.g. on Total Fire Ban days), ensure trained personnel are on standby when hot work is carried out on site. • Deliberate lighting of fires on site to be prohibited. 	
Animal and Insect Bites		
81.	<p>To minimise, or avoid where possible, bites from animals or insects by:</p> <ul style="list-style-type: none"> • Site induction and personnel training to address potential risks associated with biting animals, how to avoid them and what to do in case of a bite or emergency. • Personnel provided PPE to provide protection from biting animals and deter biting insects e.g. boots, gloves, long sleeves, trousers. • Implement BIMP (Appendix BB). 	<p>Construction Phase</p> <p>Operations Phase</p>