

Environmental Approval

PURSUANT TO SECTION 69 OF THE ENVIRONMENT PROTECTION ACT 2019

Approval number	EP2025/043-001
Approval holder	GROOTE EYLANDT MINING COMPANY PROPRIETARY LIMITED
Australian business number (ABN)	26 004 618 491
Registered business address	Level 2 100 St Georges Terrace Perth WA 6000
Action	GEMCO Excess Water Disposal Project

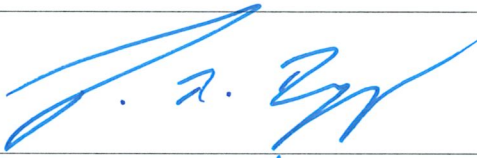
Action overview

GROOTE EYLANDT MINING COMPANY PROPRIETARY LIMITED (GEMCO) is proposing the construction, installation and operation of water discharge infrastructure (pumps, pipes and marine outfall) over a distance of about 12 km extending to a discharge point 600 m into Milner Bay. The water discharge infrastructure is located on GEMCO Western Leases and is to discharge a maximum of 80 gegalitres (GL) per year to dispose of excess water sourced from mining activity on the Western Leases. The duration of the action is for the remaining life of the Groote Eylandt manganese mine and to support rehabilitation and closure activities.

Advisory notes

- i. All statutory authorisations as required by law must be obtained and maintained as required for the action. No condition of this approval removes any obligation to obtain, renew or comply with such statutory authorisations.
- ii. No condition of this approval removes obligations required under the ***Northern Territory Aboriginal Sacred Sites Act 1989***.
- iii. Failure to comply with the requirements of a condition of this approval, or with the content of a plan required under a condition, constitutes a non-compliance, regardless of whether the contingency measures, rectification or other measures have been or are being implemented.
- iv. Notification of an environmental incident must be made to the Chief Executive Officer of Department of Lands, Planning and Environment (herein referred to as **CEO**) in writing and within 24 hours of becoming aware of the incident, in accordance with Part 9 Division 8 of the **Environment Protection Act 2019 (EP Act)** and Part 10 of the Environment Protection Regulations 2020. Notification to pollution@nt.gov.au is considered notification to the **CEO**.
- v. Submission of all notices, reports, documents or other correspondence required as a condition of this approval, including notification to the **CEO** or **Minister**, must be provided

in electronic form by emailing mineralinfo.dlpe@nt.gov.au. All documents should be in electronic form suitable for online publication.

Primary address of action	The action is located on NT Portions 1031, 1305, 1306, 1632, 1669 & 1671 on the western side of Groote Eylandt (adjacent to the Port, Rowell Highway) and GEMCO's Western Leases. The action is in the Groote Archipelago Region and the land tenure includes Aboriginal freehold, Mineral Lease (North), Crown Land and Special Purpose Lease.
NT EPA Assessment Report number	110
Person authorised to make decision	Hon Joshua Burgoyne MLA Minister for Lands, Planning and Environment
Signature	
Date of decision	8 / 9 / 2026

Recommended environmental approval conditions

1 Change of contact details

- 1-1 The approval holder must notify the **Minister** in writing of any change of its name, physical address or postal address for the serving of notices or other correspondence within 14 calendar days of such change. Where the approval holder is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.

2 Commencement of action

- 2-1 This approval expires 5 years after the date on which it is granted, unless there is **substantial implementation** on or before that date.
- 2-2 The approval holder must provide notification in writing to the **Minister**, at least 2 months prior to **substantial implementation**.

3 Limitations and extent of action

- 3-1 All activities must be carried out within the **approved extent** (Figure 1, Figure 2, Figure 3 and Figure 4 and Table 1 and Table 2).
- 3-2 The approval holder must ensure that only water sourced from mining activity on the GEMCO Western leases, is discharged via the authorised intake point. The discharge of excess mine-affected water sourced from the Eastern or Southern GEMCO leases is not permitted.
- 3-3 The action must not exceed the limitations and extents in **Table 1**.

Table 1 Limitations and extents

Action element	Location	Limitation or maximum extent
Physical elements		
Water discharge pipeline size	-	Up to 1400 mm in diameter
Authorised discharge point (Diffuser)	Start point Latitude: 13.862866972°S Longitude: 136.418771822°E End point Latitude: 13.863420433°S Longitude: 136.417537847°E	145 m (end point is 600 m into Milner Bay and oriented north east – south west)
Development area	Figure 1 Figure 2	Terrestrial footprint: 29.5 ha Marine footprint: 2 ha

Action element	Location	Limitation or maximum extent
Clearing of vegetation	Figure 3	Up to 19.5 ha
Operational elements		
Authorised intake point	Latitude: 13.9485°S Longitude: 136.4342°E	NH2 Quarry
Maximum annual discharge volume	-	Up to 80 GL/year
Maximum daily discharge volume	-	220 ML/day.
Discharge limits	Table 3	Discharge water quality must not exceed the limits specified in Table 3

4 Discharge limits

- 4-1 The approval holder must ensure that all water discharges from the action achieve the **ANZG** species protection levels at the low ecological protection (**LEP**) and moderate ecological protection (**MEP**) boundaries required in Table 2 and the **discharge limits** specified in Table 3.
- 4-2 Compliance with the **discharge limits** must be determined from samples collected from the **discharge monitoring point**.

5 Dye Tracer Tests

- 5-1 To validate the operational performance of the outfall diffuser and demonstrate achievement of a 13.5 dilution factor at the **LEP** boundary and 22 dilution factor at the **MEP** boundary, in situ dye tracer tests must be designed and undertaken by an **independent qualified person**.
- 5-2 The dye tracer tests must be undertaken during the first year of operation in:
- (1) September; and
 - (2) November
- 5-3 The dye tracer tests required by condition 5-2 must be undertaken during neap / 'dodge' tide conditions to assess plume behaviour under worst-case dilution and flushing conditions.
- 5-4 A report on the results of each dye tracer test must be prepared by the **independent qualified person**.
- 5-5 The report required by condition 5-4 must include an assessment of the applicability of different tracers, dye concentration injected into the discharge pipe, flow rate to simulate the discharge rate, raw monitoring data, sampling locations, tidal conditions, dilution calculations, aerial imagery of the plume with the **LEP** and **MEP** boundaries demarcated, and an assessment of whether plume behaviour, diffuser performance and the dilution factor (for species protection levels at the **LEP** and **MEP** boundaries), were achieved.
- 5-6 The report required by condition 5-4 must be submitted to the **CEO** within 28 calendar days of completion of the tests

6 Marine Ecosystems and Marine Environmental Quality

6-1 The approval holder must ensure that all discharges achieve the following environmental outcomes:

- (1) protect the quality and productivity of water, sediment and biota so that environmental values and declared beneficial uses outside of the **MEP**, including aquatic ecosystem protection, and recreational water quality and aesthetics are maintained; and
- (2) no adverse impact to marine ecosystem values including the biodiversity, ecological integrity and ecological functioning of benthic habitats and communities outside the **MEP**.

7 Discharge Monitoring and Management Plan

7-1 The approval holder must implement a Discharge Monitoring and Management Plan (**DMMP**), prepared by a **suitably qualified person** in consultation with the Anindilyakwa Land Council (**ALC**), with the purpose of ensuring the marine ecosystems and marine environmental quality environmental objectives in condition 6-1 are achieved.

7-2 The **DMMP** required by condition 7-1 must:

- (1) include the Trigger Action Response Plan (TARP) required by condition 8-1;
- (2) be reviewed by an **independent qualified person** to ensure it is consistent with achievement of the environmental outcomes required by condition 6-1;
- (3) be submitted with the independent review and statement addressing how the reviewer's findings have been addressed, to the **Minister** at least one month prior to commencing discharge;
- (4) specify how requirement of condition 4-1 and will be met;
- (5) specify how the outcomes of condition 6-1 will be met;
- (6) specify the **ecosystem receptors** and locations to be monitored and evaluated to assess the performance of discharge limits for achieving the protection of environmental outcomes identified in condition 6-1
- (7) specify that the selected **ecosystem receptors** will be located no further than 350 m northwest and southeast from the **authorised discharge point** and will be selected to provide representative coverage of the receiving environment in all directions from the diffuser;
- (8) include the monitoring program of selected **ecosystem receptors**, that includes at a minimum the monitoring outlined in **Table 4,7-2(6)** to evaluate the environmental impacts of discharging mine-affected water into the environment of Milner Bay to assess performance against the outcome identified in condition 6-1.
- (9) specify the management actions that will be implemented if monitoring of selected **ecosystem receptors** detects declining condition and/or abundance of the environmental outcomes identified in 6-1;
- (10) include a program to undertake whole-of-effluent toxicity testing to evaluate the environmental impacts of discharging mine-affected water into the environment of

Milner Bay to assess performance against the outcome identified in condition 6-1; and the reporting procedures, including the format, timing and frequency for the reporting of monitoring data against **trigger values** (Table 3), selected **ecosystem receptors** (including Table 4) and the outcome of condition 6-1.

- 7-3 The approval holder must implement the **DMMP** that satisfies the requirements of condition 7-1.
- 7-4 The **DMMP** must include a monitoring program that, at a minimum, meets the requirements of the monitoring schedules in Table 4 and Table 5.
- 7-5 The instruments used for continuous monitoring Table 5 are to be maintained, calibrated and the measurement resolution is to be suitable for detecting a significant change in the value of the parameter being measured.

8 Trigger Action Response Plan

- 8-1 The approval holder must develop and implement a Trigger Action Response Plan (**TARP**) for the duration of the action.
- 8-2 In the event that **trigger values** identified in Table 3 are exceeded the approval holder shall immediately implement the **TARP** required by condition 8-1.
- 8-3 The **TARP** must:
 - (1) include corrective actions for exceedances of **trigger values** including verification sampling, investigation of cause, optimisation of treatment or blending, reduction of discharge rate or duration, diversion of discharge, when temporary cessation of discharge may be required, and criteria for recommencement;
 - (2) identify requirements for notifying the **CEO** of any exceedance of **trigger values** including:
 - (a) the date, time, duration and likely cause of the exceedance;
 - (b) the parameter affected;
 - (c) the corrective actions implemented, including whether discharge was reduced, stopped or recommenced; and
 - (d) the timeframe for submission of investigation findings and any additional proposed corrective or preventative actions.

9 Impacts to water quality

- 9-1 The approval holder shall minimise soil and groundwater disturbing activities in accordance with the following guidance documents, or any approved update of these guidance documents:
 - (1) National Acid Sulfate Soils Guidance Identification and Laboratory Methods Manual (2018);
 - (2) National Acid Sulfate Soils Sampling and Identification Methods Manual (2018); and
 - (3) International Erosion Control Association Guidance *Best Practice Erosion and Sediment Control* (2025).

10 Construction in the Marine Environment

- 10-1 The approval holder must ensure that implementation of the action achieves the following environmental outcomes:
- (1) risks of physical injury, mortality, behavioural changes and health impacts on **marine megafauna** are minimised; and
 - (2) protect the quality and productivity of water, sediment and biota so that environmental values and declared beneficial uses outside of the **marine disturbance area**, including aquatic ecosystem protection, and recreational water quality and aesthetics are maintained; and
 - (3) no adverse impact to marine ecosystem values including the biodiversity, ecological integrity and ecological functioning of benthic habitats and communities outside the **marine disturbance area**.
- 10-2 The approval holder must implement a Marine Megafauna Management Plan, prepared by a **suitably qualified person** in consultation with the **ALC**, with the purpose of ensuring the objectives in condition 10-1 is achieved.
- 10-3 The Marine Megafauna Management Plan must be submitted to the **Minister** at least 14 calendar days prior to **substantial implementation** within the **marine disturbance area**.
- 10-4 The Marine Megafauna Management Plan required by condition 10-2 must:
- (1) identify actions that will be implemented to avoid, minimise and/or manage impacts to marine megafauna from underwater noise;
 - (2) require a **shut-down zone** to be established around the location of underwater noise-generating activities based on predicted temporary threshold shift distances for relevant species;
 - (3) require an **observation zone** to extend 250 m beyond the **shut-down zone**; and
 - (4) require piling to cease immediately if marine megafauna are observed within the **shut-down zone** and not recommence until the zone has been clear for 30 minutes.

11 Aboriginal cultural heritage and sacred sites

- 11-1 The approval holder must implement the action to meet the following environmental outcomes:
- (1) Avoid disturbance to cultural and heritage values within the **approved extent**; and
 - (2) Protection of sacred sites.
- 11-2 In accordance with condition 12-2(9) the approval holder must conduct ongoing consultation and engagement with Traditional Owners about achievement of the objectives in condition 11-1 for the **life of the action**.
- 11-3 The approval holder must, in consultation with the **ALC**, prepare a Cultural Heritage Management Plan (**CHMP**) that demonstrates how the Aboriginal cultural heritage objectives in condition 11-1 will be achieved.
- 11-4 The **CHMP** must be submitted to the **Minister** at least 14 calendar days prior to **substantial implementation**.

11-5 The **CHMP** required by condition 11-3 must:

- (1) document known Aboriginal cultural **heritage values** in the **approved extent** and in Milner Bay;
- (2) identify actions that will be implemented to avoid, minimise and/or manage impacts to known and unexpected sites of potential cultural and **heritage values**; and
- (3) include an unexpected finds protocol.

12 Stakeholder engagement and communications plan

12-1 The approval holder must develop and implement a stakeholder engagement and communications plan (**SECP**) for the management of the action.

12-2 The **SECP** required by condition 12-1 must:

- (1) be developed in consultation with the **ALC**;
- (2) be developed in accordance with the International Association for Public Participation's Quality Assurance Standard for Community and Stakeholder Engagement¹ or the latest version;
- (3) be developed in accordance with any relevant stakeholder engagement protocols established between NT government and Aboriginal corporations;
- (4) identify all affected stakeholders including but not limited to:
 - (a) traditional owners;
 - (b) **the ALC**;
 - (c) Aboriginal Areas Protection Authority;
 - (d) other people or organisations determined to be Aboriginal stakeholders; and
 - (e) community members and residents that have the potential to be affected by the action.
- (5) demonstrate that affected stakeholders have been consulted on potential positive and negative impacts of the action, including details of the process used to identify these impacts, and that the affected stakeholders feedback has been understood and considered in implementing the action;
- (6) demonstrate that Aboriginal values and the rights and interests of Aboriginal communities within the proposed extent have been understood and considered;
- (7) be reviewed by an **independent qualified person** to ensure the **SECP** meets the requirements of condition 12-2;
- (8) be submitted to the **Minister** with the comments from the **independent qualified person** required by condition 12-2(7) and a statement from the approval holder

¹ International Association for Public Participation (IAP2) (2015). Quality Assurance Standard for Community and Stakeholder Engagement.

addressing how the reviewer's findings have been addressed, at least one month prior to **substantial implementation**;

- (9) include provisions for ongoing stakeholder engagement for the **life of the action**, including:
 - (a) undertaking consultation with identified stakeholders at least annually;
 - (b) commitments to provide stakeholders with accessible information on environmental performance, compliance outcomes, and potential impacts to cultural and **heritage values**; and
 - (c) commitments to provide meaningful opportunities for stakeholders to raise concerns, provide feedback and participate in discussions about adaptive management of impacts; and
 - (d) commitments to provide opportunities for stakeholder involvement in the development and implementation of environmental monitoring

12-3 The Compliance Assessment Report required by condition 16-1 must:

- (1) document stakeholder consultation activities and discussions;
- (2) include a summary of issues and concerns raised by the community and stakeholders;
- (3) document how stakeholder input has been considered and, where appropriate, incorporated into the adaptive management of the action; and
- (4) where stakeholder input or concerns have not been incorporated into the adaptive management of the action, provide a clear justification for why it was not adopted.

13 Discharge Limit Exceedance

13-1 In the event that the discharge limits identified in **Table 3** are exceeded the approval holder must:

- (1) report this to the **CEO** within 24 hours and discuss the corrective actions that will be implemented;
- (2) implement corrective actions;
- (3) investigate the cause;
- (4) investigate environmental impacts;
- (5) advise rectification measures to be implemented;
- (6) advise any other measures to be implemented to ensure no further impact; and
- (7) within one month of the exceedance provide a report to the **CEO** detailing the measures required in conditions 13-1(1) to 13-1(6)
- (8) continue implementing the corrective actions to until the outcomes of condition 6-1 is being met.

14 Compliance Reporting

- 14-1 The approval holder must provide an annual Compliance Assessment Report to the **CEO** for the purpose of determining compliance with each condition of this approval.
- 14-2 Unless a different date or frequency is approved by the **CEO**, the first annual Compliance Assessment Report must be submitted within 18 months of the date of this approval, and subsequent reports must be submitted annually from that date.
- 14-3 Each annual Compliance Assessment Report must be endorsed by the approval holder's Chief Executive Officer, or a person approved by the approval holder's Chief Executive Officer to be delegated to sign on the Chief Executive Officer's behalf.
- 14-4 Each annual Compliance Assessment Report must:
- (1) state whether each condition of this approval has been complied with, including:
 - (a) exceedance of any limitations and extents in **Table 1**;
 - (b) achievement of environmental outcomes and objectives in condition 6-1, 10-1 and 11-1;
 - (c) requirements to implement the content of management plans required under this approval;
 - (d) monitoring requirements;
 - (e) requirements to implement contingency measures;
 - (f) requirements to implement adaptive management; and
 - (g) reporting requirements.
 - (2) include the results of any monitoring (inclusive of any raw data) that has been required under a condition of this approval;
 - (3) provide evidence to substantiate statements of compliance, or details of where there has been a non-compliance;
 - (4) include the corrective, remedial and preventative actions taken in response to any potential non-compliance;
 - (5) include the stakeholder engagement and consultation details required by condition 12-3; and
 - (6) be provided in a form suitable for publication on the approval holder website and online by the **DLPE**.
- 14-5 The approval holder must prepare a Compliance Assessment Plan and submit it to the CEO at least 6 months prior to the first Compliance Assessment Report required by condition 14-1, or prior to implementation of the action, whichever is sooner.
- 14-6 The Compliance Assessment Plan must include:
- (1) what, when and how information will be collected and recorded to assess compliance;
 - (2) the methods which will be used to assess compliance;

- (3) the methods which will be used to validate the adequacy of the compliance assessment to determine whether the implementation conditions are being complied with;
- (4) the table of contents of Compliance Assessment Reports, including audit reports required by condition 18-1; and
- (5) how and when Compliance Assessment Reports will be made publicly available, including being published on the approval holder's website within 6 weeks of being provided to the **CEO**.

15 Decommissioning and rehabilitation

15-1 The approval holder must develop, implement, and comply with a decommissioning and rehabilitation plan.

15-2 The decommissioning and rehabilitation plan required by condition 15-1 must:

- (1) define closure objectives and criteria;
- (2) describe the methodology, progressive staging and timing for dismantling and removal of infrastructure, rehabilitation and remediation; and
- (3) describe the approach for post-decommissioning monitoring and remediation;
- (4) be submitted to the **Minister** at least 3 months before **substantial implementation**.

16 Environmental performance reporting

16-1 The approval holder must prepare an Environmental Performance Report (**EPR**) that reports on the environmental performance of the action

16-2 The **EPR** required by condition 16-1 must:

- (1) be submitted to the **Minister** on the first anniversary of **substantial implementation**;
- (2) be submitted to the **Minister** every 5 years thereafter following the submission of the report required by condition 16-2(1);
- (3) be endorsed by the approval holder or a person delegated to endorse on the approval holder's behalf;
- (4) include a statement as to the extent the approval holder has complied with each condition of this approval;
- (5) provide an interpretation of all monitoring data required by the conditions of this approval;
- (6) provide an evaluation of monitoring results of ecosystem receptors (set out in **Table 4**) and a statement as to whether the receiving environment exhibits adverse impact and the extent the approval holder has achieved the protection of environmental outcomes identified in condition 6-1, 10-1 and 11-1; and
- (7) identify all non-compliances and describe corrective and preventative actions taken to date and actions that will be taken.

- 16-3 The approval holder must maintain records demonstrating compliance with the conditions of this approval for the **life of the action**.

17 Revision of plans

- 17-1 The approval holder may revise any management plan required by this approval and must provide the following to the **Minister** at least one (1) month prior to any material amendment(s) being implemented:
- (1) the revised plan(s);
 - (2) a tabulated summary of the amendment(s) with document references;
 - (3) reasons for the amendment(s); and
 - (4) an assessment of environmental risks and potential environmental impacts associated with the amendment(s).
- 17-2 The approval holder must implement the action to comply with the latest revision of management plans required by this approval.

18 Independent Audit

- 18-1 The approval holder must arrange for an independent audit of compliance with the conditions of this approval, including achievement of the environmental outcomes and/or the environmental objectives and/ or environmental performance with the conditions of this approval, as and when directed by the **CEO**.
- 18-2 The independent audit must be carried out by an **independent qualified person** with appropriate qualifications who is nominated or approved by the **CEO** to undertake the audit under condition 18-1.
- 18-3 The approval holder must submit the independent audit report with the Compliance Assessment Report required by condition 14-1, or at any time as directed in writing by the **CEO**. The audit report must be supported by credible evidence to substantiate its findings.
- 18-4 If an independent audit report is required by condition 18-1, it must be made publicly available in the same timeframe, manner and form as a Compliance Assessment Report, or as otherwise directed by the **CEO**.

19 Provision of environmental data

- 19-1 All environmental monitoring data required to be collected or obtained under this approval must be retained by the approval holder for the **life of the action**.
- 19-2 The approval holder must, as and when directed by the **Minister**, provide any environmental data (including sampling design, sampling methodologies, empirical data and derived information products such as maps) or information relevant to the assessment of the action and implementation of this approval, to the **Minister** in the form and manner and at the intervals specified in the direction.

Table 2 Marine environmental quality management areas

Area	Location	Required level of protection
Low ecological protection area (LEP)	20 m radial zone from the authorised discharge point (refer to Figure 4)	At the boundary of the LEP the approval holder must achieve the ANZG 80% level of species protection for non-bioaccumulating toxicants and the ANZG 95% level of species protection for bioaccumulating toxicants
Moderate ecological protection area (MEP)	52 m from the LEP boundary (72 m from the authorised discharge point (refer to Figure 4))	At the boundary of the MEP , the approval holder must achieve the ANZG 95% level of species protection for non-bioaccumulating toxicants and the ANZG 99% level of species protection for bioaccumulating toxicants

Table 3 Trigger Values and Discharge limits

Parameter	Unit	Limit type	Trigger Value	Trigger Value Basis	Discharge Limit	Discharge Limit Basis
Aluminium, dissolved	µg/L	Maximum	292	Calculated from receiving water trigger of 37 µg/L, background of 2.5 µg/L and dilution factor of 8.4.	762	Calculated from receiving water trigger of 37 µg/L, background of 2.5 µg/L and dilution factor of 22.
Zinc, dissolved	µg/L	Maximum	15	Calculated from receiving water trigger of 3.3 µg/L, background of 2.5 µg/L and dilution factor of 2.2.	20	Calculated from receiving water trigger of 3.3 µg/L, background of 2.5 µg/L and dilution factor of 22.
Cadmium, dissolved	µg/L	Maximum	0.06	Predicted discharge concentration. SER concluded that no dilution required as the discharge concentration is below the receiving water trigger value.	13	Calculated from receiving water trigger of 0.7 µg/L, background of 0.1 µg/L and dilution factor of 22.
Mercury, dissolved	µg/L	Maximum	0.05	Predicted discharge concentration. SER concluded that no dilution required as the discharge concentration is below the receiving water trigger value.	1	Calculated from receiving water trigger of 0.1 µg/L, background of 0.05 µg/L and dilution factor of 22.
Manganese, dissolved	µg/L	Maximum	293	Predicted discharge concentration. SER concluded that no dilution required as the discharge concentration is below the receiving water trigger value.	6566	Calculated from receiving water trigger of 300 µg/L, background of 1.6 µg/L and dilution factor of 22.
Copper, dissolved	µg/L	Maximum	1.8	Calculated from receiving water trigger of 0.6 µg/L,	3	Calculated from receiving water trigger of 0.6 µg/L, background of 0.5 µg/L and dilution factor of 22.

Parameter	Unit	Limit type	Trigger Value	Trigger Value Basis	Discharge Limit	Discharge Limit Basis
				background of 0.5 µg/L and dilution factor of 13.1		
Rare-earth elements, dissolved	µg/L	Maximum	6.75	Calculated from receiving water trigger of 0.5 µg/L, background of 0 µg/L and dilution factor of 13.5.	N/A	No discharge limit is proposed for rare-earth elements due to the absence of established guideline values.
Ammoniacal nitrogen, dissolved	µg/L	Maximum	910	ANZG 95% level of species protection	19,894	Calculated from receiving water trigger of 910 µg/L, background of 6 µg/L and dilution factor of 22.
Total nitrogen	kg/day t/year	Maximum load	68 24	Nutrient load control and receiving environment response.	100 25	Nutrient load limit and receiving environment response.
Turbidity	NTU	Maximum	3.25	Biologically relevant threshold for protection of seagrasses and corals.	44	Operational limit to support receiving water turbidity and light outcomes.
pH	pH units	Minimum	N/A	Operational control to support receiving water pH outcomes.	5.2	20 th Percentile of baseline marine water quality. Operational limit to support receiving water pH outcomes.
Total suspended solids	mg/L	Maximum	N/A	Operational control to support receiving water TSS, turbidity and sedimentation outcomes.	50	Operational limit to support receiving water TSS, turbidity and sediment deposition outcomes.

Notes:

Discharge limits for conservative dissolved contaminants are calculated as: dilution factor × (receiving water trigger value – background concentration) + background concentration.

Dissolved metals must be measured on 0.45 µm filtered samples unless otherwise approved.

The following rare earth elements must be monitored - Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Terbium, Thulium, Ytterbium and Yttrium. The discharge limit and trigger value for rare earth elements in **Table 3** apply to all of the listed rare earth elements.

Table 4 Marine monitoring schedule

Ecosystem receptor monitoring	
Inshore reef/seagrass area	Two surveys per year of benthic flora and fauna are to be undertaken for the life of the action by an independent qualified person . The surveys are to be undertaken during the period of highest water temperatures (November–December) and during the period of lowest water temperatures (July–August). The surveys must include monitoring of seagrass, coral, macroalgae and benthic ecological communities at the ecosystem receptor sites.
Infauna survey	Two surveys per year of the meiofauna and macrofauna are to be undertaken for the life of the action by an independent qualified person . The surveys are to be undertaken during the period of highest water temperatures (November–December) and during the period of lowest water temperatures (July–August). The surveys must include monitoring of infauna abundance, taxonomic composition, diversity, sediment characteristics and recovery at the ecosystem receptor sites.
Water quality monitoring	At the time of undertaking the inshore reef/seagrass and infauna surveys, undertake water quality monitoring at ecosystem receptors , including but not limited to electrical conductivity, pH, turbidity, total suspended solids, dissolved oxygen, temperature, nutrients, chlorophyll-a, and total and dissolved metals and metalloids, to assess the condition of ecosystem receptors and any impacts on environmental values.
Sediment quality monitoring	Monitor marine sediment quality before discharge, during the first year of operation and at an approved ongoing frequency, including diffuser areas, predicted depositional areas, sensitive benthic habitats and reference locations.
Biota and bioaccumulation monitoring	Monitor locally relevant biota for metals, metalloids and other contaminants, including species relevant to traditional fisheries or seafood consumption pathways, where practicable.
Construction-phase marine monitoring	Monitor turbidity, underwater light and visual plume extent during seabed excavation, trenching, temporary work platform construction and removal, backfilling, and any activity with potential to mobilise sediment.

Table 5 Discharge monitoring schedule

Discharge monitoring	
Discharge volume	Measure volume of discharge in ML daily, including flow rate and cumulative volume.
Discharge Characteristic (continuous)	Measure electrical conductivity, DO, pH, TSS and turbidity of discharge every 10 minutes. Data is to be available of 90% of time in any calendar month and 95% of time in any rolling 12 months.
Discharge Characteristic	A full ANZG analyte suite must be sampled and submitted for laboratory analysis weekly. Samples must comprise a 24-hour composite sample made up of 24 samples of equal volume collected over a 24 hour period on the same day each week.

Acronyms

Term	Definition
ALC	Anindilyakwa Land Council
ANZG	Australia and New Zealand Guidelines for Fresh and Marine Water Quality
CEO	Chief Executive Officer (of NT Government Department of Lands Planning and Environment)
CHMP	Cultural heritage management plan
DLPE	Department of Lands, Planning and Environment
DMMP	Discharge Monitoring and Management Plan
EPR	Environmental performance report
LEP	Low ecological protection
MEP	Moderate ecological protection
SECP	Stakeholder engagement and communications plan
TARP	Trigger Action Response Plan

Definitions

Some of the terms used in this approval have the same meaning as the terms defined in the *Environment Protection Act 2019* and *Environment Protection Regulations 2020*.

Table 6 Definitions

Term	Definition
approved extent	The extent identified in Figure 1, Figure 2, Figure 3, Figure 4, Table 1 and Table 2 of this approval.
CEO	Has the same meaning as in section 4 of the EP Act .
discharge limits	means the discharge limits specified in Table 3
Discharge monitoring point	The discharge monitoring point must be located in the discharge pipeline downstream of the intake but within the onshore portion of the discharge pipeline
ecosystem receptor	Any living organism or natural habitat that could be exposed to a stressor.

Term	Definition
heritage values	Heritage places and heritage objects as defined under the <i>Heritage Act 2011</i> and includes Aboriginal or Macassan archaeological places and objects.
independent qualified person	An independent qualified person means an independent person who is: a) a registered environmental auditor, or b) a registered environmental practitioner, or c) a person with a degree and at least five years' experience relevant to the subject matter. For this definition means: d) is not a current employee of the environmental approval holder or otherwise engaged by the environmental approval holder or by any of its subsidiaries, and in the last two years was not a former employee of the environmental approval holder e) does not have a financial interest or any involvement which would lead to a conflict of interest with the environmental approval holder, and f) is independent of the person or organisation or any of its subsidiaries that prepared or authored the SER and any additional information.
low ecological protection (LEP)	ANZG 80% species protection values are to be achieved at the boundary of the low ecological protection for non bioaccumulating toxicant and 95% species protection values for bioaccumulating toxicants
life of the action	The period of time from the substantial implementation of the action until the issue of a closure certificate under section 213 of the EP Act, or revocation of the environmental approval by the Minister at the request of the approval holder under section 114 of the EP Act.
marine disturbance area	The extent identified in Figure 2 of this approval.
moderate ecological protection (MEP)	ANZG 95% species protections values are to be achieved at the boundary of the moderate ecological protection for non bioaccumulating toxicant and 99% species protection values for bioaccumulating toxicants
Minister	The Minister responsible for administering the EP Act .
observation zone	Area within which the movement of marine mammals and marine turtles would be monitored to identify any approach to the shut-down zone where practicable. The observation zone is sized based on a nominal 250 m distance from the outer edge of the shut-down zone .

Term	Definition
suitably qualified person	A person (including an entity) who has professional qualifications, appropriate training or skills or experience relevant to the nominated subject matters or tasks. They can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature or conduct tasks in accordance with requirements.
referral	The approval holder's referral to the NT EPA under section 48 of the EP Act.
sensitive or significant vegetation	Vegetation communities defined as sensitive or significant by the Northern Territory Planning Scheme Land Clearing Guidelines ² .
shut-down zone	Area within which the observation of marine mammals and marine turtles would trigger noise-generating activities to cease as soon as reasonably practical. Shut-down zones are sized based on the potential for a temporary threshold shift.
substantial implementation	The commencement of any ground disturbing activity undertaken to carry out the action.
terrestrial disturbance area	The extent identified in Figure 1 of this approval.
trigger value	Parameters that indicate discharge water concentrate/load is not consistent with load/concentration that was predicted. The trigger value triggers investigation.

Location and extent of action

Spatial data is held by DLPE as follows:

- TerrestrialDisturbanceArea_South32-20260114
- Marine DisturbanceArea South32-20260114
- Total vegetation clearing area MGA94 Rev1 (2026-0706)
- PipelineDiffuser MidPoint 20260706

² [Northern Territory planning scheme land clearing guidelines \(2024\)](#).



Figure 1 - Terrestrial disturbance approved extent and alignment

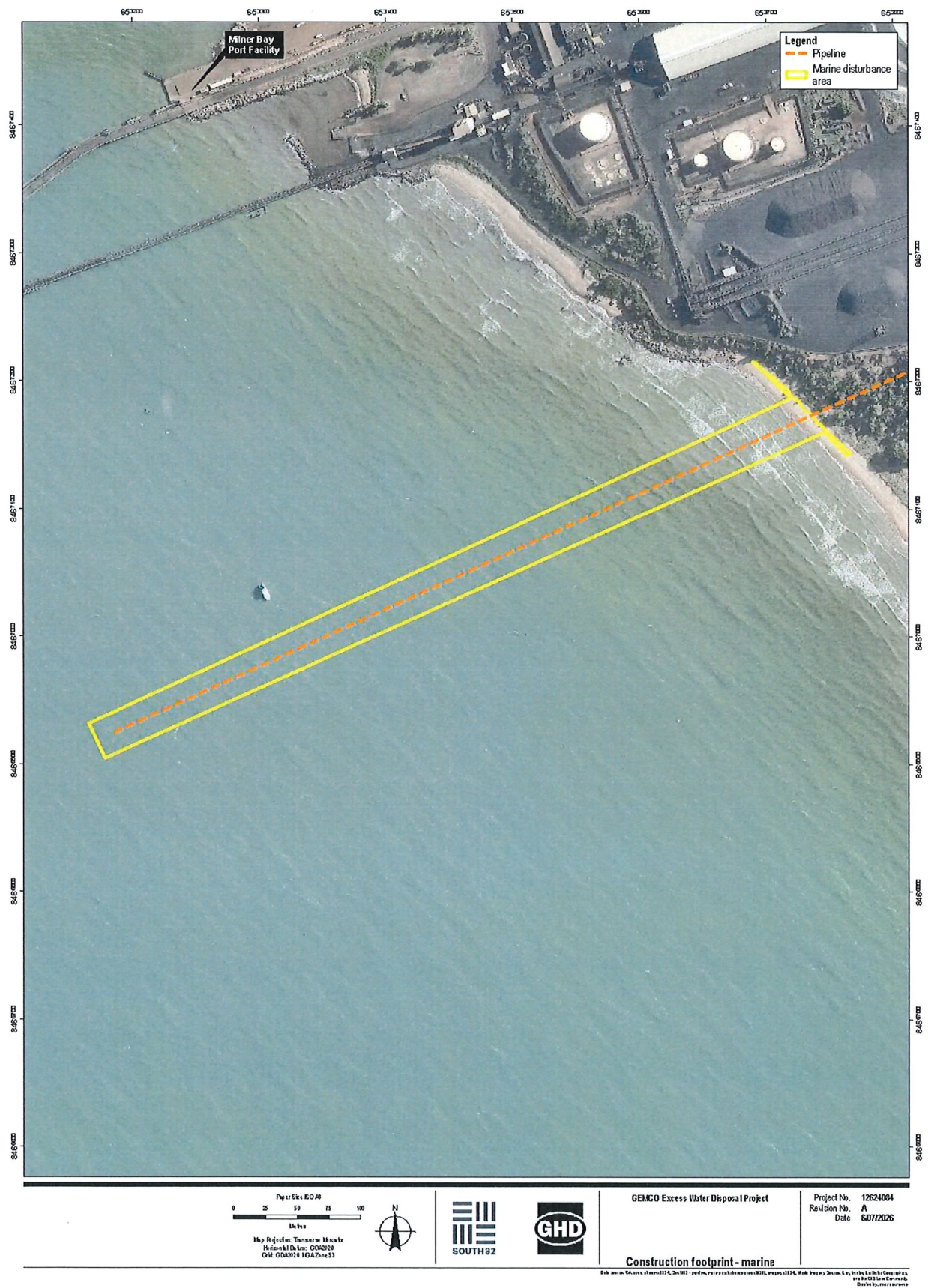


Figure 2 - Marine disturbance area approved extent and alignment

Figure 3 Native vegetation clearance extent

Refer to spatial file - Total vegetation clearing area MGA94 Rev1 (2026-0706)

Figure 4 LEP and MEP radial boundaries

