



Works Approval

Works approval number	W2943/2025/1
Works approval holder	Northern Minerals Limited
ACN	119 966 353
Registered business address	40 Kings Park Road WEST PERTH WA 6005
DWER file number	APP-0026900
Duration	09/06/2025 to 08/06/2030
Date of issue	09/06/2025
Premises details	Browns Range Project Mining Lease M80/627 and Miscellaneous Lease L80/76

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 12: Screening etc. of material	600 000 tonnes per year
Category 54: Sewage Facility	106 m ³ per day
Category 89: Putrescible landfill site	2,880 tonnes per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 09 June 2025, by:

MANAGER, RESOURCE INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
09/06/2025	W2943/2025/1	Works approval granted.

Interpretation

In this works approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:
 - (i) if dated, refers to that particular version; and
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Infrastructure and equipment

1. The works approval holder must:
 - (a) construct and/or install the infrastructure and/or equipment;
 - (b) in accordance with the corresponding design and construction / installation requirements; and
 - (c) at the corresponding infrastructure location as set out in Table 1: Design and construction / installation requirements.

Table 1: Design and construction / installation requirements

Infrastructure	Design and construction / installation requirements	Infrastructure location
Crushing and screening plant	<p>Crushing and screening plant with a maximum crushing and screening capacity of 600 000 tpa, consisting of:</p> <ul style="list-style-type: none"> • Portable Jaw crusher • Water cart to be available at all times for dust suppression. • Water cart to be fitted with attachments to allow targeted and broad-scale spray to be applied as required to the plant, traffic surfaces and/or stockpiles. • The mobile crushing plant must be contained so no contaminated runoff (any waste listed in Environmental Protection (Unauthorised Discharges) Regulations 2004) is discharged to any drainage line. • Earthworks around the plant to be graded to ensure all clean stormwater from the surrounding areas is diverted around the mobile crushing and screening facility. 	To be used within the premises boundary shown within Schedule 1. Figure 1
Wastewater treatment plant	<ul style="list-style-type: none"> • Installation of 106 m³/day Rotating Biological Contactor (RBC) Plant. • Installed on compacted ground with earthen bund around it. • Installation of 30 kL raw sewage balance tank. • Installation of 30 kL treated effluent / irrigation tank. • Installed with systems to monitor tank volume levels. • Components to the WWTP fitted with alarms to warn of high-water levels in the 	As shown in Schedule 1, Figure 2

Infrastructure	Design and construction / installation requirements	Infrastructure location												
	<p>tank or if a pump failure occurs.</p> <ul style="list-style-type: none">Stormwater must be prevented from entering the sewage treatment system and storage infrastructure.Be able to treat sewage to the following output emissions standards: <table><tr><td>BOD</td><td><20 mg/L</td></tr><tr><td>TSS</td><td><30 mg/L</td></tr><tr><td>Total Nitrogen</td><td>≤30 mg/L</td></tr><tr><td>Total Phosphorus</td><td>≤3.34 mg/L</td></tr><tr><td>E. Coli</td><td><1,000 cfu/100 mL</td></tr><tr><td>Residual chlorine</td><td>0.2 – 2.0 mg/L</td></tr></table>	BOD	<20 mg/L	TSS	<30 mg/L	Total Nitrogen	≤30 mg/L	Total Phosphorus	≤3.34 mg/L	E. Coli	<1,000 cfu/100 mL	Residual chlorine	0.2 – 2.0 mg/L	
BOD	<20 mg/L													
TSS	<30 mg/L													
Total Nitrogen	≤30 mg/L													
Total Phosphorus	≤3.34 mg/L													
E. Coli	<1,000 cfu/100 mL													
Residual chlorine	0.2 – 2.0 mg/L													
Treated wastewater irrigation area	<ul style="list-style-type: none">At least 6.5 ha in size;Volumetric flow meters must be installed to monitor sewage inflow volumes to the WWTP and effluent volumes discharged to the irrigation sprayfield;Pipeline to irrigation area constructed to manufacturers specifications;Fencing with safety signs;Designed such that run-off, spray drift or other discharge will not occur beyond the designated irrigation area.	Sprayfield as shown in Figure 2												
Landfill	<ul style="list-style-type: none">Comprising of 6 earthen trenches;Each trench to consist of an approximate area of 10 m wide by 140 m in length;Excavation of each trench of up to 5 m;Design capacity of 2,880 tonnes per year;A stock proof perimeter fence to be installed around the landfill with a firebreak of minimum 3 m in width;Earth bunds to be constructed to prevent stormwater entering open trenches;A drainage channel to be constructed around upslope edge of landfill to direct uncontaminated stormwater around the landfill;	As shown in Figure 2												

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:
 - (a) certification by a suitably qualified engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;
 - (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
 - (c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Environmental commissioning phase

Environmental commissioning requirements and emission limits

4. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 1 once the Environmental Compliance report has been submitted for that item of infrastructure in accordance with condition 3 of this works approval.
5. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 2: Environmental commissioning requirements may only be carried out:
 - (a) in accordance with the corresponding commissioning requirements; and
 - (b) for the corresponding authorised commissioning duration

Table 2: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
WWTP	<ul style="list-style-type: none"> volumetric flow meters are maintained on each WWTP outlet to the irrigation spray field. WWTP maintained and operated in accordance with the requirements as specified in condition 1. 	120 calendar days
Irrigation spray field	<ul style="list-style-type: none"> Maintained and operated in accordance with the requirements as specified in condition 1. 	120 calendar days

	<ul style="list-style-type: none"> Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the irrigation spray field. 	
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6. During environmental commissioning, the works approval holder must ensure that the emission(s) specified in Table 3: Authorised discharge points during commissioning, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 3: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location
Treated effluent	Irrigation spray field	As shown in Schedule 1, Figure 3

Monitoring during environmental commissioning

7. The works approval holder must monitor emissions during environmental commissioning in accordance with Table 4: Monitoring during environmental commissioning.

Table 4: Monitoring during environmental commissioning

Discharge point / Monitoring location	Parameter	Target	Frequency	Averaging Period	Method
Discharge point: Irrigation spray field	Volume discharged to irrigation spray field ¹	-	Continuous	-	Flow metering device
	Biological Oxygen Demand (BOD)	<20 mg/L	Monthly	Spot sample	AS/NZS 5667.1 AS/NZS 5667.10
	Total Suspended Solids (TSS)	<30 mg/L			
	Total Nitrogen (TN)	≤30 mg/L			
	Total Phosphorous (TP)	≤3.34 mg/L			
	Chlorine Residual ¹	0.2 - 2.0 mg/L			
	<i>E. Coli</i> ¹	<1,000 cfu/100 mL			

	pH ¹	6.5 – 8.5			
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Note 1: In-field non-NATA accredited analysis permitted

8. The works approval holder must ensure that all monitoring equipment used to comply with condition 7 is calibrated in accordance with the manufacturer's specifications.
9. The works approval holder must ensure that all non-continuous sampling and analysis undertaken pursuant to condition 7 is undertaken by a holder of a current accreditation from NATA for the methods of analysis relevant to the corresponding relevant parameter.
10. The works approval holder must record the results of all monitoring activities required by condition 7.

Compliance reporting

11. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in Table 4.
12. The works approval holder must ensure that the Environmental Commissioning Report required by condition 11 of this works approval includes the following:
 - (a) A summary of the environmental commissioning activities undertaken, including timeframes;
 - (b) Monitoring results for the WWTP recorded in accordance with condition 7
 - (c) Copies of laboratory reports for the monitoring results recorded in accordance with condition 7;
 - (d) A review of the works approval holder's performance and compliance against the conditions of this works approval; and
 - (e) Where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration

13. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1:
 - (a) where the item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure; and
 - (b) where the item of infrastructure is authorised to undertake environmental commissioning under condition 4, the Environmental Commissioning Report for that item of infrastructure as required by condition 11 has been submitted by the works approval holder.
14. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 13 (as applicable):
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 13(a) or 13(b) (as applicable) for that item of infrastructure; or

- (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 14(a).

Time limited operations requirements and emission limits

15. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 5 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 5.

Table 5: Time limited operational requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Crushing and screening plant	<ul style="list-style-type: none"> Volumes of material processed through the crushing and screening plant to be recorded. Dust controls maintained and operated on infrastructure as specified in condition 1. 	Within prescribed premises boundary
WWTP	<ul style="list-style-type: none"> Volumetric flow meter maintained on the outlet to the irrigation area. WWTP unit maintained and operated in accordance with the requirements as specified in condition 1. 	As shown in Schedule 1, Figure 2
Irrigation spray field	<ul style="list-style-type: none"> Maintained and operated in accordance with the requirements as specified in condition 1. Irrigation is managed to prevent ponding and pooling of effluent on the ground surface of the irrigation spray field. 	As shown in Schedule 1, Figure 3
Landfill	<ul style="list-style-type: none"> Not more than 2,880 tonnes per annum of putrescible waste to be disposed of. Volumes and types of waste to be monitored (tonnes) and recorded. Waste disposed within defined trenches. 	As shown in Schedule 1, Figure 2

Monitoring during time limited operations

16. The works approval holder must monitor emissions during time limited operations in accordance with the requirements set out in Table 6:

Table 6: Time limited operations monitoring

Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
Discharge point: Irrigation spray field	Volume discharged to irrigation spray field	Continuous	-	kL	Flow metering device
	BOD	Monthly	Spot sample	mg/L	AS/NZS 5667.1
	TSS			mg/L	AS/NZS 5667.10
	TN			mg/L	
	TP			mg/L	
	Residual chlorine ¹			mg/L	
	<i>E. Coli</i> ¹			cfu/100 mL	
	pH ¹			pH units	

Note 1: In-field non-NATA accredited analysis permitted where laboratory NATA holding times cannot be realistically met

17. The works approval holder must record the results of all the monitoring activity required by condition 16.

Compliance reporting

18. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is sooner.
19. The works approval holder must ensure the report required by Condition 18 of this works approval includes the following:
- a summary of the time limited operations, including timeframes and the amount of material processed;
 - a summary of monitoring parameter results obtained during time limited operations under condition 16;
 - a summary of the environmental performance of all infrastructure as constructed or installed (as applicable);
 - a review of operational performance and compliance against the conditions of the works approval and the Environmental Commissioning Report; and
 - where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval

holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

- 20.** The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
- (a) the name and contact details of the complainant, (if provided);
 - (b) the time and date of the complaint;
 - (c) the complete details of the complaint and any other concerns or other issues raised; and
 - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- 21.** The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:
- (a) the works conducted in accordance with condition 1;
 - (b) any maintenance of infrastructure that is performed in the course of complying with condition 1;
 - (c) monitoring programmes undertaken in accordance with condition(s) 7 and 16; and
 - (d) complaints received under condition 20.
- 22.** The books specified under condition 21 must:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the works approval holder for the duration of the works approval; and
 - (d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
AS/NZS 5667:1	Means the Australian Standard <i>AS/NZS 5667:1 Water Quality Sampling: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667:10	Means the Australian Standard <i>AS/NZS 5667:10 Water Quality Sampling: Guidance on sampling of waste waters</i>
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	<i>Environmental Protection Act 1986 (WA)</i> .
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i> .

Term	Definition
monthly period	means a one-month period commencing from day one of a month until the last day of the same month.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

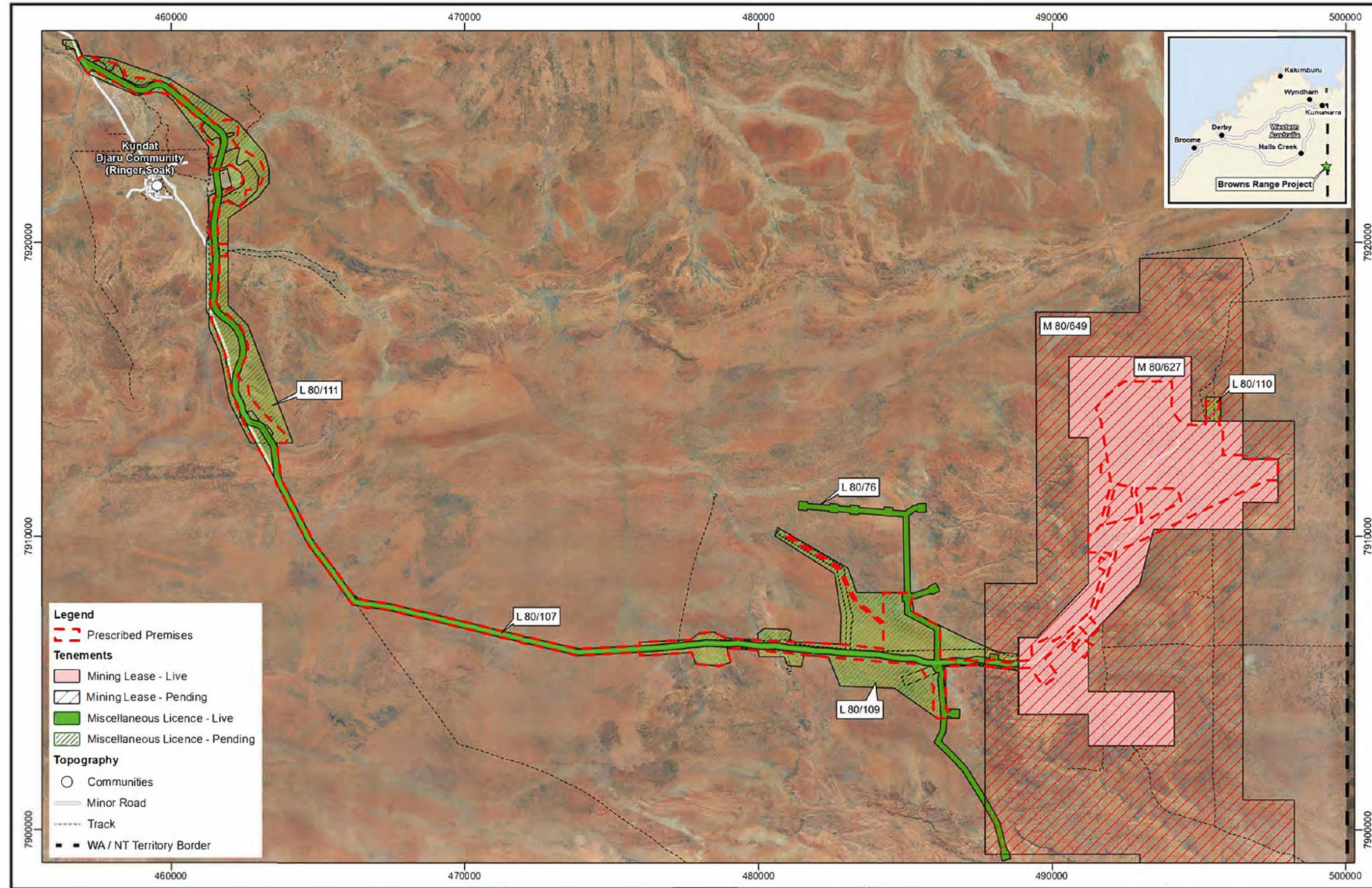


Figure 1: Map of the boundary of the prescribed premises

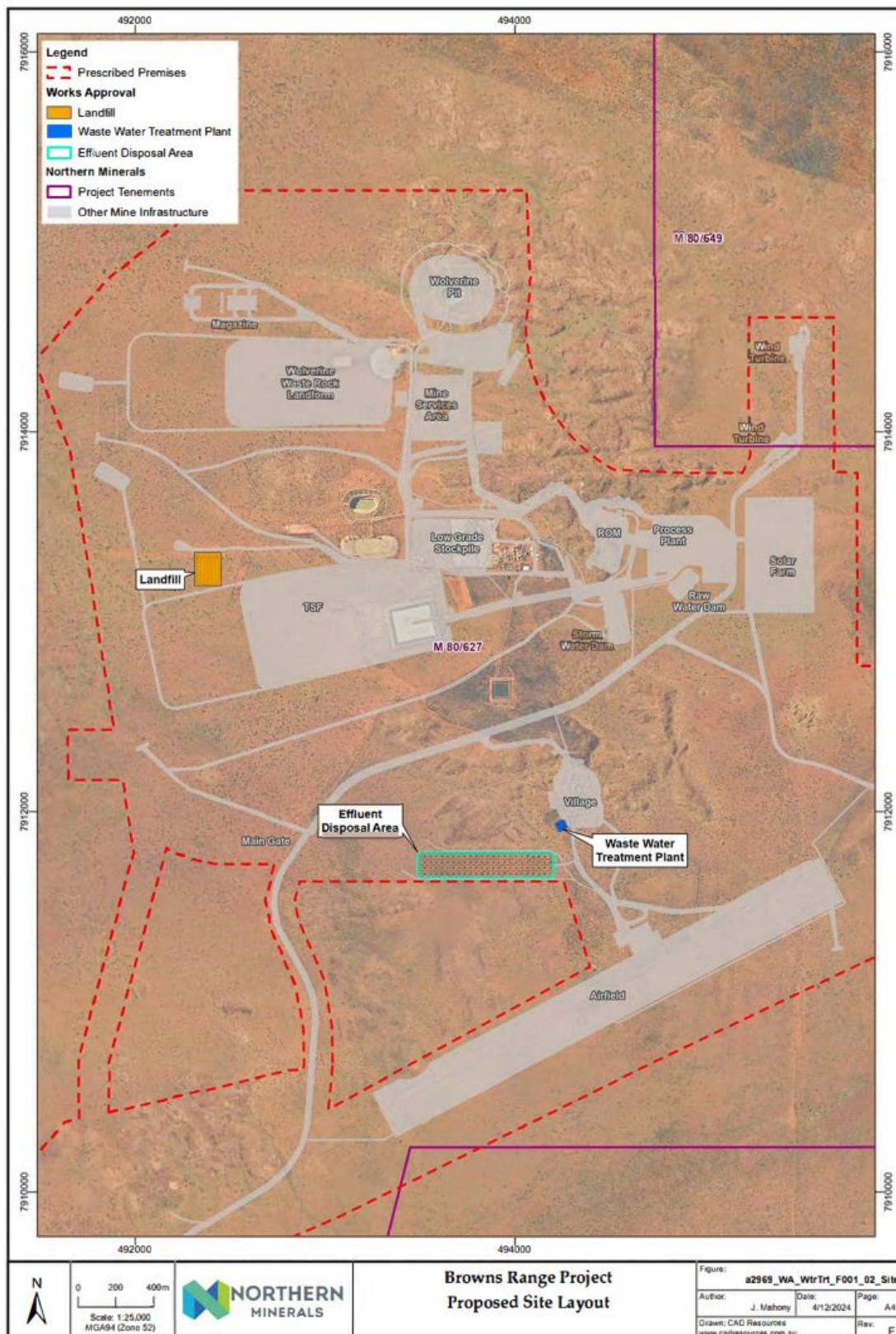


Figure 2: Proposed layout of the site

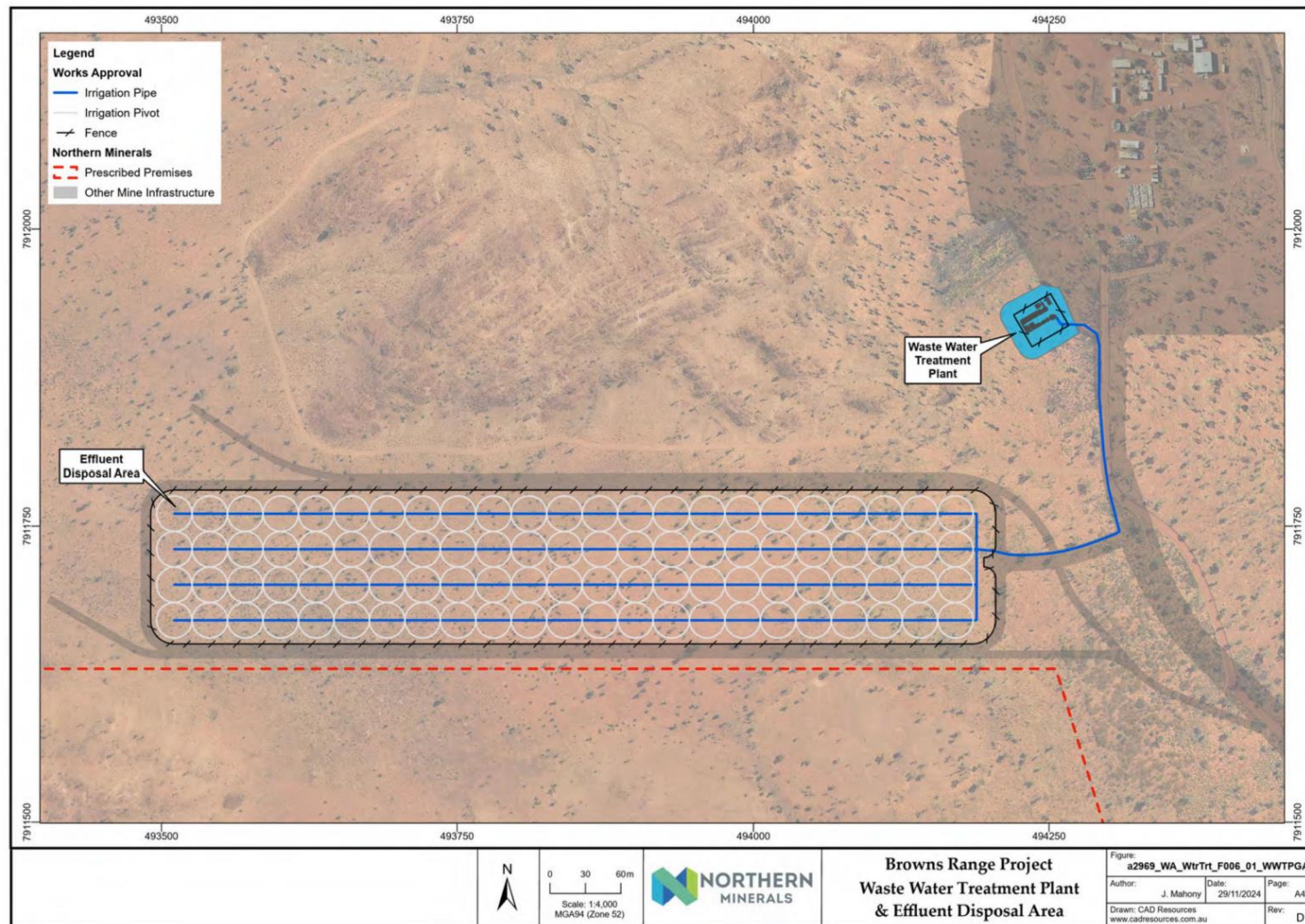


Figure 3: Irrigation field location and layout

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IR-T05 Works approval template (v6.0) (September 2022)