



# Works Approval

<b>Works approval number</b>	W6504/2021/1
<b>Works approval holder</b>	Norton Gold Fields Pty Limited
<b>ACN</b>	112 287 797
<b>Registered business address</b>	'Viskovich House' Level 1, 377 Hannan Street Kalgoorlie WA 6430
<b>DWER file number</b>	DER2018/001042-4 INS-0002416
<b>Duration</b>	22/07/2021 to 22/07/2027
<b>Date of issue</b>	22/07/2021
<b>Date of amendment</b>	15/09/2025
<b>Premises details</b>	Binduli North Minesite Legal description - Mining tenements M26/115, M26/243, M26/387, M26/420, M26/430, M26/445, M26/446, M26/447, M26/468, M26/474, M26/629 and M26/833. As defined by Figure 1 in Schedule 1.

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	5,000,000 tonnes per annual period
Category 6: Mine dewatering	1,500,000 tonnes per annual period
Category 7: Vat or in situ leaching of material	5,000,000 tonnes per annual period
Category 12: Screening, etc. of material	925,000 tonnes per annual period
Category 52: Electric power generation	13 MW capacity
Category 64: Class II or III putrescible landfill site	350 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 15 September 2025, by:

## MANAGER, RESOURCE INDUSTRIES

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

[W6504/2021/1 \(last amendment: 15 September 2025\)](#)

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

## Works approval history

Date	Reference number	Summary of changes
22/07/2021	W6504/2021/1	Works Approval granted to Norton Gold Fields Pty Limited.
11/02/2022	W6504/2021/1	Amend to reduce storage capacity of surface water catchment ponds and include Fort Scott Pit as an authorised discharge point.
28/09/2022	W6504/2021/1	Amend to allow extend timeframe for time limited operation and monitoring.
30/01/2025	W6504/2021/1	Amendments to the following: <ul style="list-style-type: none"> <li>▪ Increase the size of the emergency pond and sediment pond</li> <li>▪ Add Apache Pit as a dewater discharge point</li> <li>▪ Amended dewatering pipeline requirements</li> </ul>
15/09/2025	W6504/2021/1	<ul style="list-style-type: none"> <li>▪ Expiry date of works approval extended to 21/07/2027.</li> <li>▪ Correction of commencement of time limited operations duration period and extend time limited operations to 350 days.</li> </ul>

## 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;
  - (c) at the corresponding infrastructure location; and
  - (d) within the corresponding timeframe,
 as set out in Table 1.

**Table 1: Design and construction, installation and operational requirements**

	Infrastructure	Design and construction, installation and operational requirements	Infrastructure location
1.	Ore crushing/screeing plant	<p>Three staged crushing circuit including the following equipment:</p> <ul style="list-style-type: none"> <li>• Primary crusher: Metso C160 (or similar)</li> <li>• Secondary crusher: Sandvick CH890i (or similar)</li> <li>• High Pressure Grinding Rolls: CITIC HPGR 20/13 (or similar)</li> </ul> <p>Dust controls:</p> <ul style="list-style-type: none"> <li>• Water carts to be used on high traffic areas;</li> <li>• Visual daily monitoring of dust; and</li> <li>• Water sprays activated on machinery when visible dust is detected.</li> </ul> <p>Noise controls:</p> <ul style="list-style-type: none"> <li>• All plant equipment installed and maintained to manufacturers standards to ensure efficient operation;</li> <li>• All construction activities are to be carried out in accordance with AS2436-2010;</li> <li>• Equipment and machinery designed and installed to comply with Australian Standard noise limits; and</li> <li>• Compliance with the <i>Environmental Protection (Noise) Regulations 1997</i>.</li> </ul>	Schedule 1: Maps, Key infrastructure map, Figure 2 (Plant site)
2.	Heap leach pad	Constructed with a compacted soil layer and a 1.5 mm High Density Polyethylene (HDPE) liner to maintain a minimum permeability of $3.5 \times 10^{-15}$ m/s.	Schedule 1, Maps Key infrastructure map, Figure 2
3.	Pit water dam	Constructed to hold 18,491 m <sup>3</sup> , HDPE liner (1.5 mm) over a compacted soil layer (minimum 200 mm) to maintain a minimum permeability of $3.5 \times 10^{-15}$ m/s. Minimum free board of 0.5 metres	
4.	Raw water pond (RWP) and barren liquor pond	Each pond must be lined with a HDPE liner (1.5 mm) over a compacted soil layer (minimum 200 mm) to maintain a minimum permeability of $3.5 \times 10^{-15}$ m/s.	

	Infrastructure	Design and construction, installation and operational requirements	Infrastructure location
	(BLP)	RWP – 9,112 m <sup>3</sup> BLP – 13,053 m <sup>3</sup> Minimum design freeboard of 0.5 metres	
5.	Intermediate liquor pond (ILP) and pregnant liquor pond (PLP).	ILP and PLP will comprise of hypernet sandwiched between a top layer of 1.5mm HDPE textured liner and a bottom layer of 1mm smooth HDPE liner to maintain a minimum permeability of $3.9 \times 10^{-15}$ m/s. ILP – 13,071 m <sup>3</sup> PLP – 17,645 m <sup>3</sup> Minimum design freeboard of 0.5 metres	
6.	Storm water pond (SWP) and emergency pond (EMP)	Each pond must be lined with a HDPE liner (1.5 mm) over a compacted soil layer (minimum 200 mm) to maintain a minimum permeability of $3.5 \times 10^{-15}$ m/s. SWP – 79,620 m <sup>3</sup> EMP – 197,760 m <sup>3</sup>	
7.	Surface Water Catchment Pond (SWCP) Sediment Pond	Compact clay lined with the following capacity: SWCP – 49,640 m <sup>3</sup> Sediment Pond – 74,170 m <sup>3</sup> Minimum design freeboard of 0.3 m	
8.	Diesel power plant	13 x 1 megawatt generators (Cummins KA 50-G3 850KW or equivalent)	
9.	Landfill	<ul style="list-style-type: none"> <li>• Waste to be covered monthly;</li> <li>• Landfill to be fenced to exclude stock animals;</li> <li>• Stormwater to be diverted to flow away from the landfill area via a two metre wide trench maintained around the cell area; and</li> <li>• Total area of the landfill to be approximately 150 x 650 metres divided into five separate cells.</li> </ul>	
10.	Mobile crushing and screening	<p>Mobile crushing and screening machinery designed to process up to 925 000 tonnes per annual period consisting of the following machinery (or similar):</p> <ul style="list-style-type: none"> <li>• Terex J1175 jaw crusher;</li> <li>• Terex C1550 cone crusher;</li> <li>• Terex C1545 cone crusher;</li> <li>• Terex C1540 cone crusher;</li> <li>• Terex 689 deck screen;</li> <li>• McCloskey R230 reclaimer screen;</li> <li>• 2 x Telestack TS624 track stackers;</li> <li>• PC450-8 excavator;</li> <li>• PC350-8 excavator;</li> <li>• CAT 980H loader; and</li> <li>• Cat D8T Dozer.</li> </ul>	Schedule 1: Maps, Map of the boundary of the prescribed premises, Figure 1
11.	Mine dewater	<ul style="list-style-type: none"> <li>• All pipelines to be manufactured according to AS4131;</li> </ul>	Schedule 1:

	Infrastructure	Design and construction, installation and operational requirements	Infrastructure location
	pipelines	<ul style="list-style-type: none"> <li>• All pipelines to be bunded or buried;</li> <li>• All pipelines to be installed in accordance with AS2033;</li> <li>• All pipelines containing dewatering effluent or brine discharge are to be either:               <ul style="list-style-type: none"> <li>(a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;</li> <li>(b) equipped with automatic cut-outs in the event of a pipe failure; or</li> <li>(c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.</li> </ul> </li> <li>• All bunding to have catch pits at low points on the land, designed to hold at least the maximum volume of water contained in the pipeline;</li> <li>• Flowmeter(s) to be installed to measure cumulative discharge volumes (in tonnes and m<sup>3</sup>); and</li> <li>• All pipelines to be inspected twice daily.</li> </ul>	Maps, Map of the boundary of the prescribed premises, Figure 1 <sup>1</sup>
12.	Workshop area and washdown bays	<ul style="list-style-type: none"> <li>• Concrete lined and bunded to separate clean and contaminated waters;</li> <li>• All contaminated waters to be directed into a purpose-build silt trap and oily water separator;</li> <li>• Treated water to be re-used in processing activities; and</li> <li>• Contaminated water is to be taken off site to be treated by a licensed contractor.</li> </ul>	Schedule 1: Maps, Key infrastructure map, Figure 1 and Figure 2
13.	Power plant diesel storage Light vehicle refuelling diesel storage	<ul style="list-style-type: none"> <li>• Self-bunded diesel-only storage tanks;</li> <li>• Tanks constructed and managed in accordance with the 'Australian Standard for Storage and Handling of Flammable and Combustible Liquids' (AS 1940-2018);</li> <li>• Refuelling and unloading areas to be constructed within concrete aprons that are self-draining; and</li> <li>• Pipework to be protected with bollards and/or earthen bunds.</li> </ul>	Schedule 1: Maps, Key infrastructure map, Figure 2
14.	Noise bund 1 Noise bund 2 Noise bund 3	<ul style="list-style-type: none"> <li>• Noise bund to be constructed when required to comply with the <i>Environmental Protection (Noise) Regulations 1997</i>;</li> <li>• To be constructed from earthen material (waste rock); and</li> <li>• To be constructed and maintained at a height of at least 25 metres above the surrounding ground level.</li> </ul>	Schedule 1: Maps, Key infrastructure map, Figure 2

Note 1: Pipeline routes shown in Figure 1 are indicative only.

## Compliance reporting

- The works approval holder must within 60 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:
  - undertake an audit of their compliance with the requirements of condition 1; and
  - prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- The Environmental Compliance Report required by condition 2, must include as a minimum the following:

- (a) certification by a suitably qualified professional engineer or builder 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.

### Construction of groundwater monitoring wells

4. The works approval holder must design, construct, and install groundwater monitoring wells in accordance with the requirements specified in Table 2.

**Table 2: Infrastructure requirements – groundwater monitoring wells**

Infrastructure	Design, construction, and installation requirements	Monitoring well locations	Timeframe
MB01 to MB09	<p><u>Well design and construction:</u></p> <p>Designed and constructed in accordance with ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores.</p> <p>Well screens must target the part, or parts, of the aquifer most likely to be affected by contamination<sup>1</sup>. Where temporary/seasonal perched features are present, wells must be nested, and the perched features individually screened.</p>	Schedule 1: Maps, Monitoring bores map, Figure 3	Must be constructed, developed (purged), and determined to be operational in order to meet the frequency of baseline monitoring as required by Table 8 Schedule 2 and prior to the commencement of environmental commissioning activities under condition 8.
	<p><u>Logging of borehole:</u></p> <p>Soil samples must be collected and logged during the installation of the monitoring wells.</p> <p>A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726.</p> <p>Any observations of staining / odours or other indications of contamination must be included in the bore logs.</p>		
	<p><u>Well construction log:</u></p> <p>Well construction details must be documented within a well construction log to demonstrate compliance with ASTM D5092/D5092M-16.</p> <p>The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurement, and the revelations of the ground surface protective installations.</p>		
	<p><u>Well development:</u></p> <p>All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from</p>		

Infrastructure	Design, construction, and installation requirements	Monitoring well locations	Timeframe
	<p>around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.</p> <p><u>Installation survey:</u></p> <p>The vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.</p> <p><u>Well network map:</u></p> <p>A well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.</p>		

Note 1: Refer to Section 8 of Schedule B2 of the Assessment of Site Contamination NEPM for guidance on well screen depth and length.

Note 2: Information on constructing bores of this type can be found in UK Environment Agency (2009) and British Geological Survey (2010)

5. The works approval holder must, within 60 calendar days of the monitoring wells being constructed, submit to the CEO a well construction report showing compliance with the requirements of Table 2.
6. The works approval holder must monitor the baseline ambient groundwater conditions in accordance with Table 8 in Schedule 2 and record the results of all monitoring activity.

## Environmental commissioning phase

### Environmental commissioning requirements for the WWTP and irrigation field

7. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 8 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 3 of this works approval.
8. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 3 may only be carried out:
  - (a) in accordance with the corresponding commissioning requirements; and
  - (b) for the corresponding authorised commissioning duration.



**Table 3: Environmental commissioning requirements**

Infrastructure	Commissioning requirements	Authorised commissioning duration
Mine dewater pipelines	<ul style="list-style-type: none"> <li>• All pipelines containing dewatering effluent or brine discharge are either:               <ul style="list-style-type: none"> <li>(a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;</li> <li>(b) equipped with automatic cut-outs in the event of a pipe failure; or</li> <li>(c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.</li> </ul> </li> <li>• All catch pits along pipeline route to be constructed to hold at least the maximum volume of water contained in the pipeline;</li> <li>• Twice daily inspection of pipelines; and</li> <li>• Successful operational test of the pipeline leak detection shut-off system.</li> </ul>	For a period not exceeding 180 calendar days in aggregate.
Heap leach pad	Undertake the following tests of the Heap Leach liner's integrity: <ul style="list-style-type: none"> <li>• High-load puncture test;</li> <li>• High-load permeability test; and</li> <li>• High-load interface shear test.</li> </ul>	

### Compliance reporting

9. The works approval holder must submit to the CEO an Environmental Commissioning Report within 60 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in Table 3.

### Time limited operations phase

#### Commencement and duration

10. 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; or
  - (b) Where the item of infrastructure is authorised to undertake environmental commissioning under condition 7, the Environmental Commissioning Report for that item of infrastructure as required by condition 9 has been submitted by the works approval holder.
11. The works approval holder may conduct time limited operations for an item of infrastructure specified in Table 4 (as applicable):
- (a) for a period not exceeding 350 calendar days from the day the works approval holder meets the requirements of condition 10(a) or condition 10(b) 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 EP Act, if one is granted before the end of the period specified in condition 11(a).

12. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 4 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirements set out in Table 4.

**Table 4: Infrastructure and equipment requirements during time limited operations**

	Site infrastructure and equipment	Operational requirements	Infrastructure location
1	Ore crushing/screening plant	<ul style="list-style-type: none"> <li>• Water carts to be used on high traffic areas;</li> <li>• Visual daily monitoring of dust; and</li> <li>• Water sprays activated on machinery when visible dust is detected.</li> </ul>	Schedule 1: Maps, Key infrastructure map, Figure 2 (Plant site)
2	Mine dewater pipelines	<ul style="list-style-type: none"> <li>• Twice daily inspections of pipelines.</li> <li>• Flow meter to be maintained on pipeline discharge point(s) to measure cumulative volumes (tonnes or m<sup>3</sup>) of dewater discharged.</li> </ul>	Schedule 1: Maps, Map of the boundary of the prescribed premises, Figure 1
3	Mobile crushing and screening	<ul style="list-style-type: none"> <li>• Water carts to be used on high traffic areas;</li> <li>• Visual daily monitoring of dust; and</li> <li>• Water sprays activated on machinery when visible dust is detected.</li> </ul>	
4	Noise bund 1 Noise bund 2 Noise bund 3	• To be constructed and maintained at a height of at least 25 metres above the surrounding ground level to ensure compliance with the <i>Environmental Protection (Noise) Regulations 1997</i> .	Schedule 1: Maps, Key infrastructure map, Figure 2 (Plant site)
5	Landfill	<ul style="list-style-type: none"> <li>• Waste to be covered with clean fill monthly;</li> <li>• Uncontaminated stormwater to be diverted away from active cells;</li> <li>• Tipping area not to exceed 30 metres in length and 2 metres in height; and</li> <li>• No more than 60 waste tyres to be buried per year.</li> </ul>	Schedule 1: Maps, Key infrastructure map, Figure 2 (Plant site)
6	Heap leach pad	• 1.5 mm HDPE liner maintained.	
7	Diesel power plant	• Maintained in accordance with manufacturer specifications.	

13. The works approval holder must ensure that the emissions specified in Table 5 are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

**Table 5: Authorised discharge points**

Emission	Discharge point	Discharge point location
Mine dewater, Water Treatment Plant brine discharge	Fort Williams Pit	As shown in Schedule 1, Figure 1: Map of the boundary of the prescribed premises
	Fort Scott Pit	
	Karen Louise Pit	
	Centurion Pit	
	Navajo Chief Pit	
	Ben Hur Pit	
	Apache Pit	

14. The works approval holder must monitor emissions in accordance with the requirements specified in Table 6 and record the results of all such monitoring.

**Table 6: Surface water monitoring**

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Limit	Unit
Fort William Pit	Point of discharge pipe	Volumetric flow rate	Continuously	Monthly		kL
Fort Scott Pit						
Karen Louise Pit		Standing water level	Quarterly	Spot sample	6	Metres below pit crest level
Centurion Pit		pH			-	-
Navajo Chief Pit		Total dissolved solids				mg/L
Ben Hur Pit						
Apache Pit						
Surface Water Catchment Pond (SWCP)	-	Total Recoverable Hydrocarbon	Opportunistic*	Spot sample		mg/L

\* Where greater than 30 mm of rainfall has been recorded over a 24-hour period or standing water level breaches 0.3 m freeboard

15. Upon the commencement date of time limited operation of the ore crushing/screening plant specified in Table 1, the works approval holder must retain the services of a person qualified and experienced in the area of environmental noise assessment and who by their qualifications and experience is eligible to hold membership of the Australian Acoustical Society or the Australian Association of Acoustical Consultants to:
- investigate the nature and extent of noise emissions from the premises;
  - assess in accordance with the methodology required in the *Environmental Protection (Noise) Regulations 1997*, the compliance of the noise emissions from the primary activities, against the relevant assigned levels specified in those Regulations; and
  - compile and submit to the works approval holder within 5 months of the commencement date of time limited operations of the ore crushing/screening plant specified in Table 1, a report in accordance with condition 16.
16. A report prepared pursuant to condition 15(c) is to include:

- (a) a description of the methods used for monitoring and/or modelling of noise emissions from the premises;
  - (b) details and the results of the investigation undertaken pursuant to condition 15(a);
  - (c) details and results of the assessment of the noise emissions from the premises, against the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997* undertaken pursuant to condition 15(b); and
  - (d) an assessment of noise levels against the most recent previous noise assessment.
- 17.** The works approval holder must submit to the CEO the report prepared pursuant to condition 15(c) within 14 days of receiving it.
- 18.** Where an assessment pursuant to condition 15(b) indicates that noise emissions do not comply with the relevant assigned levels in the *Environmental Protection (Noise) Regulations 1997*, the works approval holder must:
- (a) within 60 days of receiving an assessment report pursuant to condition 15(c) prepare a plan to ensure the undertaking of the licensed activity will no longer lead to any contravention of the *Environmental Protection (Noise) Regulations 1997*; and
  - (b) provide to the CEO a copy of the plan prepared pursuant to condition 18(a) within 30 days of its preparation.

### Compliance reporting

- 19.** The works approval holder must submit to the CEO a report on the time limited operations within 60 calendar days of the completion date of time limited operations or 60 calendar days before the expiration date of the works approval, whichever is the sooner.
- 20.** The works approval holder must ensure the report required by condition 18 includes the following:
- (a) A summary of the time limited operations, including timeframes and amount of gold bearing ore processed;
  - (b) The results of the commissioning requirements outlined in Table 3;
  - (c) The ambient groundwater monitoring results obtained during time limited operations under Table 8 Schedule 2 with a comparison to the ANZECC 2018 water quality guidelines Australian and New Zealand Guidelines for Fresh and Marine Water Quality 95% level of species protection for freshwater;
  - (d) A review of operational performance and compliance against the conditions of the works approval and the Environmental Commissioning Report; and
  - (e) 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)

- 21.** 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.
- 22.** 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) 6, 8 and 14; and
  - (d) complaints received under condition 21.
- 23.** The books specified under condition 22 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
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
AS1726	Australian Standard for Geotechnical Site Investigations
AS1940-2018	Australian Standard for Storage and Handling of Flammable and Combustible Liquids
AS2033	Means the Australian Standard for <i>Installation of polyethylene pipe systems</i> .
AS2436-2010	Means the Australian Standard for <i>Guide to noise and vibration control on construction, demolition and maintenance sites</i> .
AS4131	Means the Australian Standard for <i>Polyethylene (PE) compounds for pressure pipes and fittings</i> .
AS5667.1-1998	means the Australian Standard AS/NZS 5667.1 <i>Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples</i> .
AS5667.11-1998	means the Australian Standard AS/NZS 5667.11 <i>Water Quality – Sampling – Guidance on sampling of groundwaters</i> .
ASTM D5092/D5092M-16	International Standard practice for design and installation of groundwater monitoring bores
BLP	barren liquor pond
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 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
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.

Term	Definition
emission	has the same meaning given to that term under the EP Act.
EMP	emergency pond
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>
HDPE	high density polyethylene
ILP	intermediate liquor pond
Inert Waste Type 1	has the meaning defined in the Landfill Definitions.
Inert Waste Type 2	has the meaning defined in the Landfill Definitions.
monthly period	means a one-month period commencing from day 2 of a month until day 1 of the immediately following month.
PLP	pregnant liquor pond
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.
RWP	raw water pond
SWCP	surface water catchment pond
SWP	storm water pond
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.

Term	Definition
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.

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**END OF CONDITIONS**



## Schedule 1: Maps

### Premises map

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

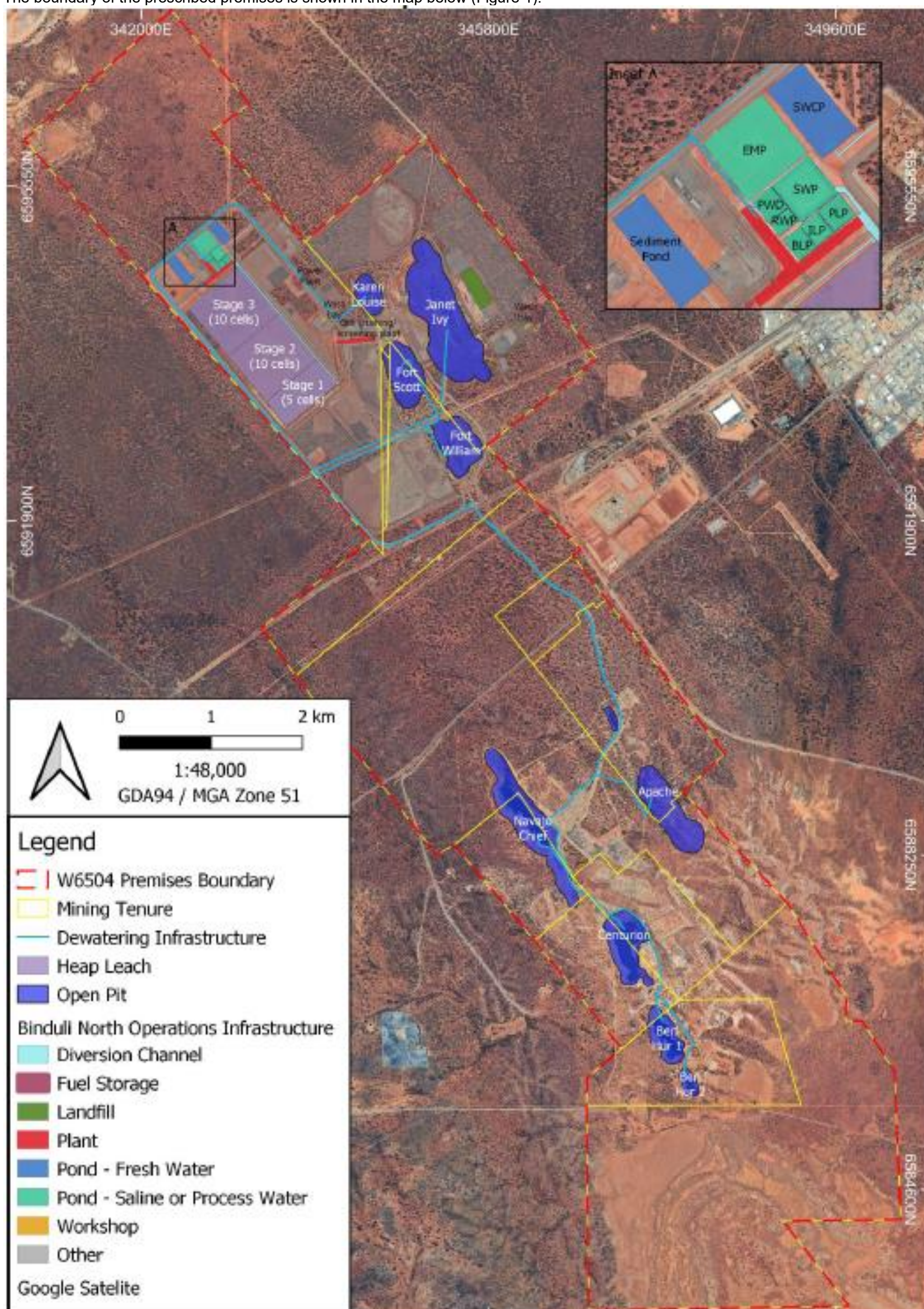
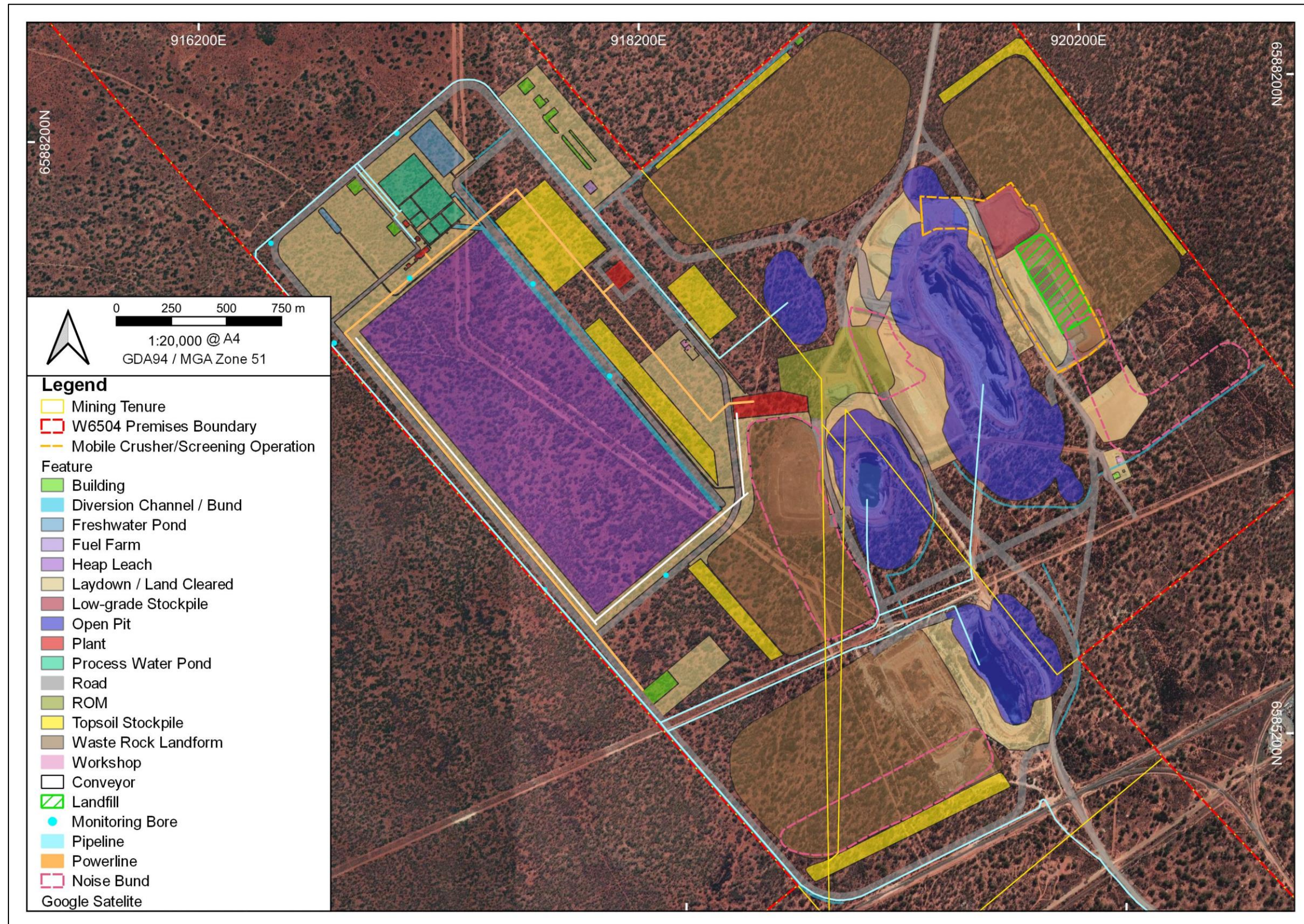


Figure 1: Map of the boundary of the prescribed premises (Note: Pipeline routes shown in Figure 1 are indicative only)



## Key infrastructure map

The location of key infrastructure is shown in the map below (Figure 2).



**Figure 2: Map of the location of key infrastructure**



## Monitoring bores map

The location of the heap leach groundwater monitoring bores are shown in the map below (Figure 3).

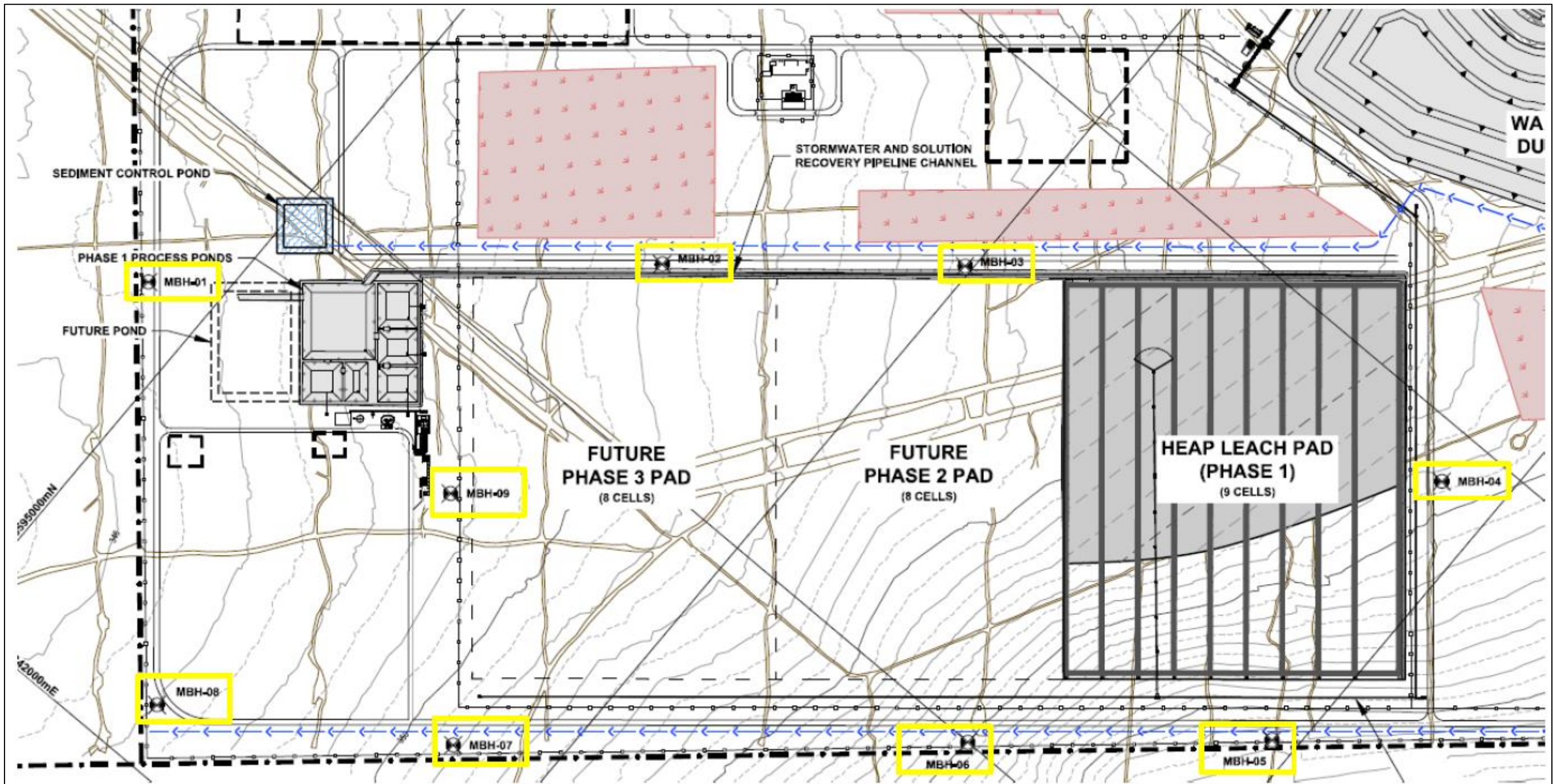


Figure 3: Map of the location of groundwater monitoring bores

## Schedule 2: Monitoring

**Table 8: Ambient groundwater monitoring**

	Parameter	Monitoring location	Unit	Frequency	Averaging period	Method Sampling & Analysis
1	SWL	Refer to condition 4	mbgl	At least twice, 3 months prior to the commencement of commissioning for baseline monitoring	Spot sample	AS5667.1-1998 AS5667.10-1998
2	pH		pH units			
3	Electrical Conductivity, EC		µS/cm			
4	Total Dissolved Solids, TDS		mg/L	Monthly during commissioning		
5	Sulfate, SO <sub>4</sub>			Quarterly during Time Limited Operations		
6	Ammonia, NH <sub>3</sub>					
7	Nitrite, NO <sub>2</sub>					
8	Nitrite + Nitrate, NO <sub>3</sub>					
9	Total Kjeldahl Nitrogen, N					
10	Total Nitrogen, TN					
11	Total Phosphorus, TP					
12	Reactive Phosphorus, P					
13	Aluminium, Al					
14	Arsenic, As					
15	Boron, B					
16	Barium, Ba					
17	Beryllium, Be					
18	Cadmium, Cd					
19	Calcium, Ca					
20	Chloride, Cl					

	Parameter	Monitoring location	Unit	Frequency	Averaging period	Method Sampling & Analysis
21	Chromium, Cr					
22	Cobalt, Co					
23	Copper, Cu					
24	Fluoride, F					
25	Iron, Fe					
26	Lead, Pb					
27	Magnesium, Mg					
28	Manganese, Mn					
29	Mercury, Hg					
30	Molybdenum, Mo					
31	Nickel, Ni					
32	Selenium, Se					
33	Strontium, Sr					
34	Uranium, U					
35	Vanadium, V					
36	Zinc, Zn					