Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L9411/2023/1
Licence holder	Wonmunna Iron Ore Pty Ltd
ACN	169 151 777
Registered business address	20 Walters Drive OSBORNE PARK WA 6017
DWER file number	DWERVT14025
Duration	21/12/2023 to 20/12/2033
Date of issue	21/12/2023
Premises details	Wonmunna Iron Ore Project Great Northern Highway, Shire of East Pilbara Mining Tenement M47/1424 NEWMAN WA 6753 As defined by the maps in Schedule 1 of the Licence

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production / design capacity**
Category 5: Processing or beneficiation of metallic or non-metallic ore.	13,500,000 tonnes per annual period
Category 54: Sewage facility.	WWTP 100 m^3 per day, consisting of: WWTP Stage 1 50 m^3 per day WWTP Stage 2 50 m^3 per day

This licence is granted to the licence holder, subject to the attached conditions, on 21 December 2023, by:

Sonya Poor

Digitally signed by Sonya Poor
Date: 2023.12.21 07:55:49 +08'00'

A/MANAGER, RESOURCE INDUSTRIES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
21/12/2023	L9411/2023/1	Licence granted for category 5 and 54 activities. Construction for WWTP Stage 2 not constructed under works approval W6358/2020/1.

Interpretation

In this licence:

(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 licence:

  (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 licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

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

Infrastructure and equipment

Construction phase

1. The licence holder must install the infrastructure and equipment listed in Table 1, in accordance with;

(a) the corresponding installation requirement; and

(b) at the corresponding infrastructure location; and

(c) within the corresponding timeframe,

as set out in Table 1.

Table 1: Installation requirements

<table>
<tr><th>Infrastructure and equipment</th><th>Installation requirement</th><th>Infrastructure location</th></tr>
<tr><td colspan="3">WWTP STAGE 2</td></tr>
<tr><td>External 50 m³ balance tank installed on compacted earthen pad
Balance pump
SBR tank with heavy duty submersible aerators and a floating decant weir
Decant pump
Sludge pump
Recirculation pump with online chlorine dosing system and analyser
Ammonium chloride dosing system
Sucrose dosing system
Internal irrigation tank that is connected to Stage 1
Sludge tank 50 m³
Control panel
Audible and visual pump fault alarm
Irrigation pump
Discharge flow meter
Treated effluent pipeline</td><td>• Designed and constructed to treat up to 50 m³ per day of wastewater (Stage 1 and Stage 2 combined to treat up to 100 m³ per day) to the following concentrations:
<table><tr><th>Parameter</th><th>Target concentrations</th></tr><tr><td>Biochemical Oxygen Demand (BOD)</td><td><20 mg/L</td></tr><tr><td>Total suspended solids (TSS)</td><td><30 mg/L</td></tr><tr><td>Total nitrogen (TN)</td><td><30 mg/L</td></tr><tr><td>Total phosphorus (TP)</td><td><8 mg/L</td></tr><tr><td>pH</td><td>6.5 to 8.5</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>• Alarm system to alert operator upon:
➢ Pump/s failure;
➢ High tank levels;
• Treated effluent directed to Irrigation Sprayfield; and
• Diversion bunding.</td><td>Schedule 1
Figure 1</td></tr>
</table>

Infrastructure and equipment	Installation requirement	Infrastructure location
WWTP STAGE 2 – SPRAY IRRIGATION FIELD		
Spray irrigation field Perimeter fence	• Increase spray irrigation field size of 1.2 hectares up to 2.16 hectares; • Irrigation infrastructure to supply irrigation in a manner which minimises runoff or ponding from the spray irrigation field; • Automated control from WWTP irrigation pump; • Perimeter fence installed to allow a 5 m spray drift buffer; • Safety signage displayed on perimeter fencing; and • Diversion bunding.	Schedule 1 Figure 1 Figure 2
RO PLANT STAGE 2		
Stage 2 RO Plants	• 1 x RO plant to be constructed within the vicinity of the Stage 2 WWTP; and • RO plant to be constructed with flow meters to measure volumes of potable water and reject brine produced.	Schedule 1 Figure 1

2. The licence holder must operate the Stage 2 WWTP, Stage 2 Irrigation Sprayfield and Stage 2 RO Plant in accordance with the conditions of this licence, following submission of the Environmental Compliance Report required under Condition 15, Table 7.

Operations

3. The licence holder must ensure that the site infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
OHP and MCP	• Record volumes of product produced; • Operate and maintain dust suppression systems, such as sprinkler systems and/or water carts on raw material where visible dust emissions are observed; • Maintain shields and covers on conveyors and transfer points; • Operation of the MCP may not occur near waterways or adjacent to or within the Weeli Wolli Creek Exclusion Zone; • May not operate during excessive wind events; • Operate water trucks to manage dust emissions from the ore stockpile, hardstand and bare areas; • Maintain diversion bunds/drains to divert "clean water" around mining areas and infrastructure to maintain continuity of surface flow system; • Maintain "disturbed" flow paths, flow-through sediment basins and sediment traps; and • Capture runoff from cleared areas with drains or bunding and direct it to sediment traps.	Schedule 1 Figure 1
Stage 1 WWTP and Stage 2 WWTP	• Maintain the WWTPs infrastructure in good working order; • Sludge is collected for offsite disposal by a licensed waste contractor and volumes monitored on a weekly basis; • Maintain diversion bunds to divert "clean water" around the WWTP infrastructure; • Maintain the 300 m^2 flow through sediment basin to achieve containment of a 1 in 5 year rainfall event; • Monthly inspection of pipelines to ensure pipeline integrity; and • Target the treated effluent to the following concentrations:	Schedule 1 Figure 1 Figure 2

<table>
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<tr><td></td><td>
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<tr><th>Parameter</th><th>Target concentrations</th></tr>
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</table>
</td><td></td></tr>
<tr><td>Stage 1 Irrigation Sprayfield and Stage 2 Irrigation Sprayfield</td><td>• Maintain good working order of the Irrigation Sprayfield;
• Maintain even distribution of treated effluent discharge so as there is no irrigation generated runoff, spray drift or discharge outside the irrigation field;
• Irrigation does not occur on land that is waterlogged;
• Irrigation is not undertaken when rainfall is imminent, during, or immediately after a rainfall event;
• Wastewater is evenly distributed over the irrigation area, and that no ponding or pooling occurs;
• No soil erosion occurs;
• Vegetative cover is maintained over the irrigation area;
• There are monthly visual inspections made of the irrigation area; and
• No livestock is permitted to graze the irrigation area.</td><td>Schedule 1
Figure 1
Figure 2</td></tr>
<tr><td>Stage 1 RO Plant and Stage 2 RO Plants</td><td>• Maintain the RO Plants in good working order;
• RO brine to be either:
➢ mixed with treated effluent within the irrigation tank prior to discharge to spray field; and/or
➢ used in dust suppression in accordance with Condition 6.</td><td>Schedule 1
Figure 1
Figure 2</td></tr>
</table>

Emissions and discharges

Emission limits

4. The licence holder must ensure that emissions from the discharge points listed in Table 3 for the corresponding parameters do not exceed the corresponding limit when monitored in accordance with Condition 5.

Table 3: Emission and discharge limits

Discharge point	Parameters	Limit
WWTP Irrigation Sprayfields	TDS	1,500 mg/L (averaged over 3 months)

Authorised discharge points

5. The licence holder must ensure that the emissions specified in Table 4, are discharged only from the corresponding discharge point and only at the corresponding discharge point location.

Table 4: Authorised discharge points

Emission	Discharge point	Discharge point location
Treated effluent	• Irrigation Sprayfields.	Schedule 1, Figure 2
RO brine	• Irrigation Sprayfields after dilution with treated effluent; and/or • Dust suppression in accordance with Condition 6.	Schedule 1, Figure 1

6. The licence holder must ensure that RO brine used for dust suppression, is only applied on pre-disturbed locations throughout the prescribed premises, including haul roads, access roads, ROM pads and waste dumps associated with the mine and crushing plant and construction areas.

Monitoring

7. The licence holder must monitor emissions:

(a) from each discharge point;

(b) at the corresponding monitoring location;

(c) for the corresponding parameter;

(d) at the corresponding frequency;

(e) for the corresponding averaging period;

(f) in the corresponding unit; and

(g) using the corresponding method,

as set out in Table 5.

Table 5: Emissions and discharge monitoring

Monitoring location	Parameter	Frequency	Averaging period	Unit	Method Sampling and Analysis
Flow meter to Irrigation Sprayfields	Cumulative volumetric flow rate	Continuous	Monthly	m^3/day	-
WWTP final irrigation tank (treated effluent and RO brine)	pH[1]	Daily	Spot sample	pH units	AS/NZS 5667.10 - 1998 Samples must be submitted to and tested by a laboratory with NATA accreditation
	Residual Free Chlorine[1]			mg/L	
	BOD_5	Quarterly			
	TSS				
	TN				
	TP				
	E. coli			cfu/100 mL	
	TDS	Monthly	Spot sample	mg/L	AS/NZS 5667.10 - 1998 Samples must be submitted to and tested by a laboratory with NATA accreditation

Note 1: In-field non-NATA accredited analysis permitted.

8. The licence holder must record the results of all monitoring activity required by Condition 7.

9. The licence holder must ensure that:

   (a) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months; and

   (b) monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters.

Records and reporting

10. The licence holder must record the following information in relation to complaints received by the licence 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 licence holder to investigate or respond to any complaint.

11. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 60 days after the end of that annual period an Annual Audit Compliance Report in the approved form.

12. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) the works conducted in accordance with Condition 1, Table 1 of this licence;

(c) any maintenance of infrastructure that is performed in the course of complying with conditions of this licence;

(d) monitoring programmes undertaken in accordance with Condition 7, Table 5 of this licence; and

(e) complaints received under Condition 10 of this licence.

13. The books specified under Condition 12 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 licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

14. The licence holder must submit to the CEO by no later than 60 days after the end of each biennial period, an Annual Environmental Report for two annual periods for the conditions listed in Table 6 and which provides information in accordance with the corresponding requirement set out in Table 6.

Table 6: Annual Biennial Environmental Report

Condition	Requirement
-	(a) A summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period, including any actions taken.
3, Table 2	(a) Volumes of product produced; and (b) A summary of inspections and maintenance performed to address the operational requirements of Table 2.
7, Table 5	(a) The volume of treated effluent and RO brine applied daily to the irrigation sprayfield, and monthly cumulative volumes presented in table format; (b) Results of the monitoring of treated effluent and RO brine applied to the Irrigation Sprayfields provided in table format; (c) Summary of the results, with trends and comparison to the target concentrations listed in Condition 3, Table 2; (d) Annual loadings of TN and TP applied to the Irrigation Sprayfields including an explanation of the basis for determining loading rates; (e) An assessment and interpretation of the data, including comparison to historical trends and loading rates; and (f) Copies of laboratory sample analysis reports.
10	(a) A summary of complaints received.

15. The licence holder must ensure that the conditions listed in Table 7 are notified to the CEO in accordance with the notification requirements of the table.

Table 7: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[2]
4, Table 3	Breach of any limit specified in the licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
Condition 1, Table 1 Environmental Compliance Report	The licence holder must: (a) undertake an audit of their compliance with the requirements of Condition 1, Table 1; and (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance. The Environmental Compliance Report required, must include as a minimum the following: (a) certification by an engineer that the Stage 2 WWTP, Stage 2 Irrigation Sprayfield and Stage 2 RO Plant as specified in Condition 1, Table 1, have been constructed in accordance with the relevant requirements specified in Condition 1, Table 1; (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in Condition 1, Table 1; (c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person; and (d) where a departure from the requirements specified in Table 1 occurs, the licence holder must provide to the CEO a description of, and explanation for, the departure.	Within 30 calendar days of an item of infrastructure or equipment required by Condition 1, Table 1 being installed	None specified

Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 2

Definitions

In this licence, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
ACN	Australian Company Number
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
Annual period	a 12 month period commencing from 1 January until 31 December of the immediately following year.
Biennial period	a 24 month period commencing from 1 January until 31 December of the second consecutive year.
BOD_5	5-Day Biochemical Oxygen Demand
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
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.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
MCP	Mobile (Screening and) Crushing Plant

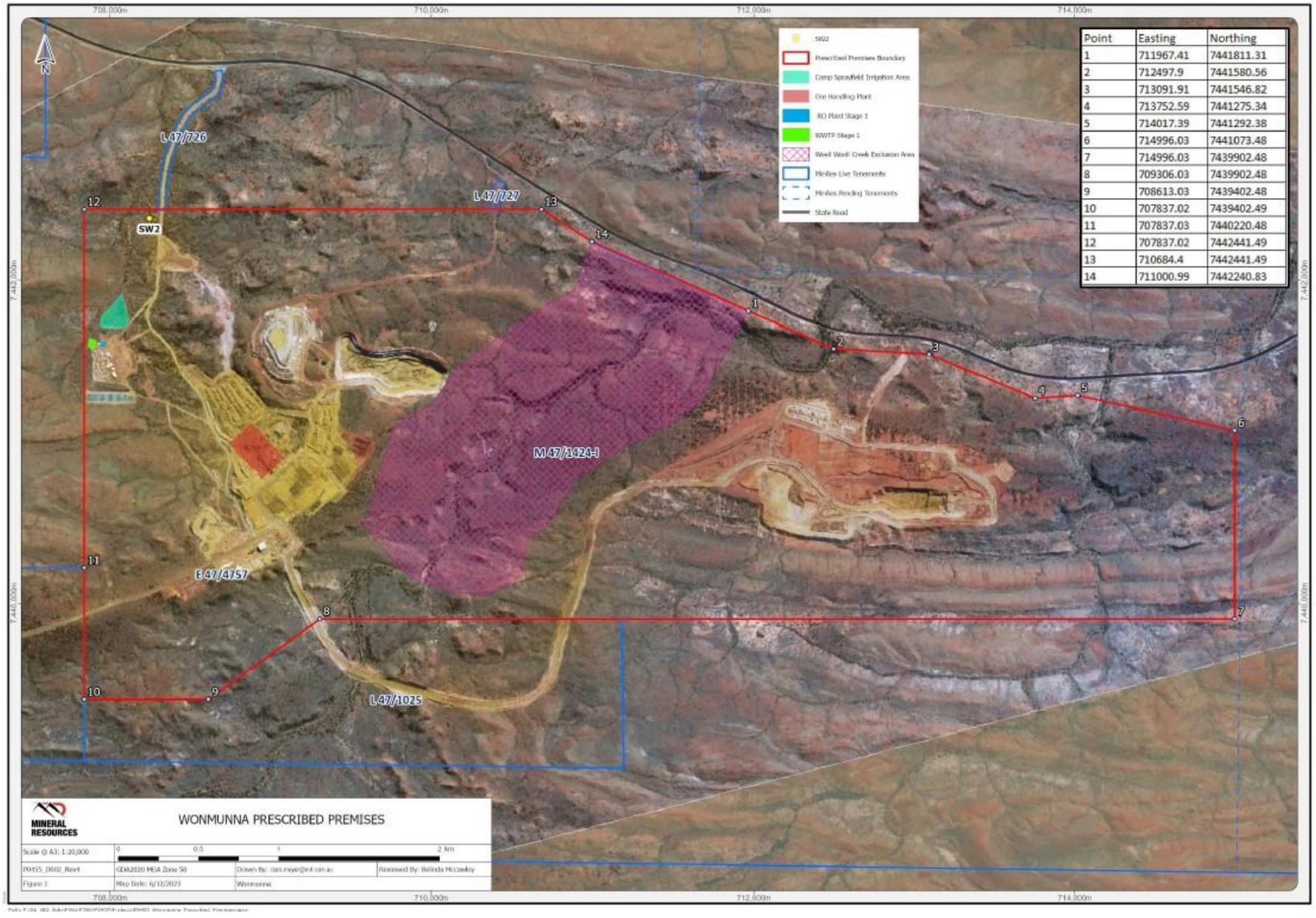
Term	Definition
monthly period	means a one-month period commencing from [day X] of a month until [day (X-1)] of the immediately following month. *e.g. "means a one-month period commencing from the seventh day of a month until the sixth day of the immediately following month."*
OHP	Ore Handling Plant.
premises	refers to 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 licence.
prescribed premises	has the same meaning given to that term under the EP Act.
RO	Reverse Osmosis
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
TN	Total Nitrogen
TP	Total Phosphorus
waste	has the same meaning given to that term under the EP Act.
WWTP	Wastewater Treatment Plant

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises, infrastructure locations and Weeli Wolli Creek Exclusion Zone are shown in the map below (Figure 1)



Point	Easting	Northing
1	711967.41	7441811.31
2	712497.9	7441580.56
3	713091.91	7441546.82
4	713752.59	7441275.34
5	714017.39	7441292.38
6	714996.03	7441073.48
7	714996.03	7439902.48
8	709306.03	7439902.48
9	708613.03	7439402.48
10	707837.02	7439402.49
11	707837.03	7440220.48
12	707837.02	7442441.49
13	710684.4	7442441.49
14	711000.99	7442240.83

Figure 1: Map of the boundary of the prescribed premises infrastructure locations and Weeli Wolli Creek Exclusion Zone

The location of the wastewater treatment plant and Irrigation Sprayfield are shown in the map below (Figure 2).

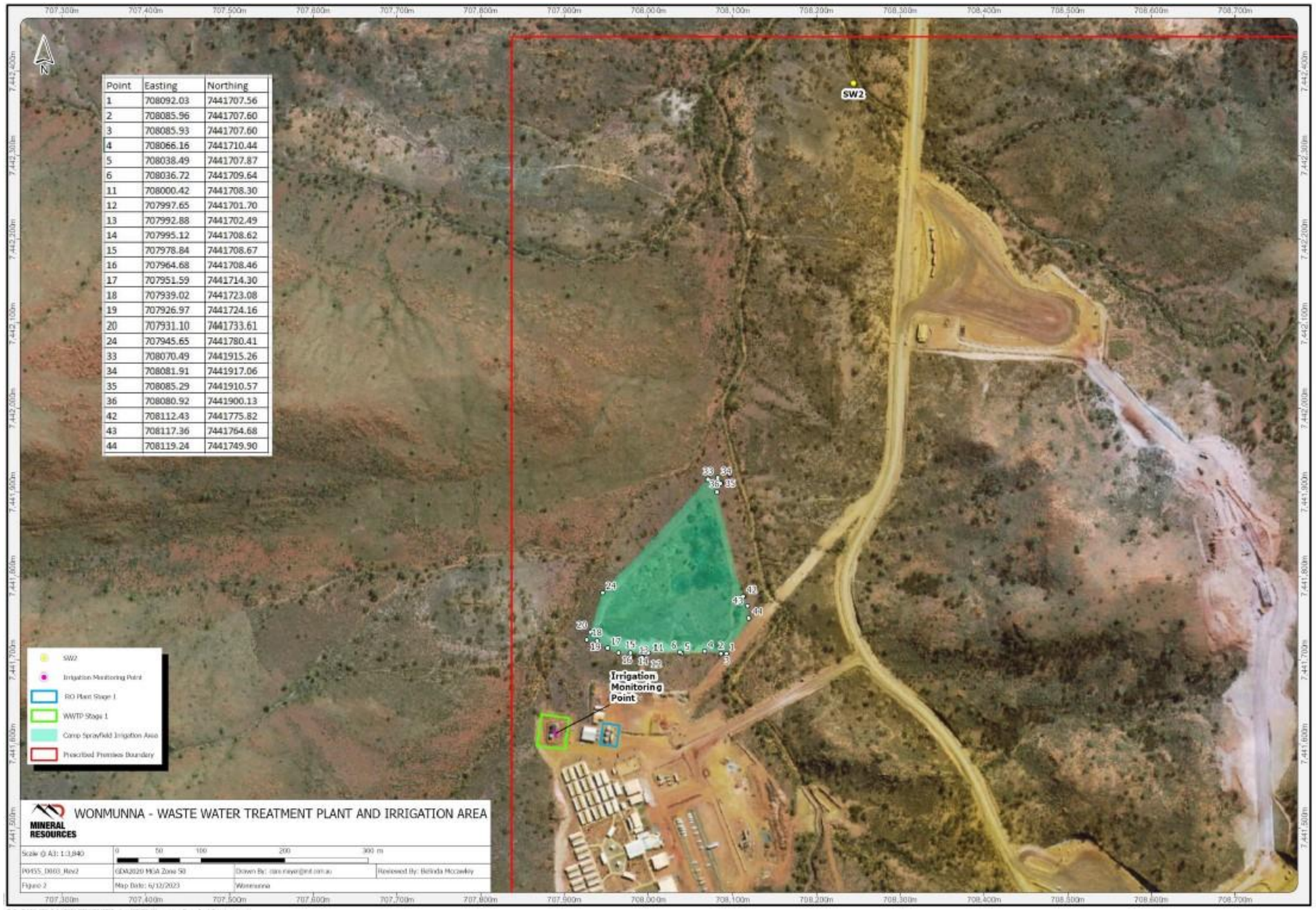


Figure 2: Map of the wastewater treatment plant and Irrigation Sprayfield locations

Schedule 2: Reporting & notification forms

N1 Form

Licence:	Licence holder:
Form: N1	Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence number	
Name of operator	
Location of premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of licence holder	
Date	