



|                                    |   |            |
|------------------------------------|---|------------|
| <b>Licence number</b>              | L9392/2023/1  |            |
| <b>Licence holder</b>              | Iron Bridge Operation Pty Ltd   |            |
| <b>ACN</b>                         | 165 513 557   |            |
| <b>Registered business address</b> | Level 2 Hyatt Centre<br>87 Adelaide Terrace<br>EAST PERTH WA 6004                                     |            |
| <b>DWER file number</b>            | DER2023/000275  |            |
| <b>Duration</b>                    | 13/02/2024 to   | 13/02/2044 |
| <b>Date of issue</b>               | 13/02/2024  |            |
| <b>Date of amendment</b>           | 03/01/2025  |            |
| <b>Premises details</b>            | North Star Magnetite Project – Junction Camp<br>Legal description -<br>Miscellaneous Tenement L45/625 |            |

| <b>Prescribed premises category description<br/>(Schedule 1, <i>Environmental Protection Regulations 1987</i>)</b>   | <b>Assessed design capacity</b> |
|--|---------------------------------|
| <b>Category 54: Sewage facility:</b> premises<br>a) on which sewage is treated (excluding septic tanks); or<br>b) from which treated sewage is discharged onto land or into waters | 108 m <sup>3</sup> per day      |

This licence is granted to the licence holder, subject to the attached conditions, on 3 January 2025, by:

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

[L9392/2023/1](#)

## Licence history

| Date       | Reference number | Summary of changes   |
|------------|------------------|--|
| 13/09/2022 | W6688/2022/1     | Works approval issued  |
| 13/02/2024 | L9392/2023/1     | This licence issued  |
| 03/01/2025 | L9392/2023/1     | Amendment to update monitoring requirements and monitoring frequency. Removal of environmental commissioning and compliance reporting conditions following the completion of all commissioning requirements. |

## 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

- The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

**Table 1: Infrastructure and equipment requirements**

|    | Site infrastructure and equipment | Operational requirement  | Infrastructure location   |
|----|-----------------------------------|--|---|
| 1. | Irrigation sprayfield             | a) 3.5 ha irrigation field;<br>b) Not more than 108 m <sup>3</sup> per day of blended effluent to be applied to the designated irrigation sprayfield area;<br>c) Blended effluent to consist of up to 30 m <sup>3</sup> /day of RO reject brine and up to 78 m <sup>3</sup> /day of treated effluent;<br>d) Irrigation via low drift fan-spray nozzles spaced for even distribution;<br>e) Irrigation to be managed to prevent ponding and pooling; and<br>f) No blended effluent is permitted to runoff or discharged beyond the irrigation sprayfield.   | As shown in Schedule 1, Figure 1: Premises layout   |
| 2. | WWTP and pipeline                 | a) Volumetric flow metres are maintained on the reverse osmosis brine holding tank outlet, WWTP inlet and outlet to the irrigation sprayfield.;<br>b) Sludge is contained within sealed sludge tanks prior to removal by a licensed waste carrier for disposal to a licensed disposal facility;<br>c) Screenings are contained within a sealed bin prior to removal for disposal to a licensed disposal facility;<br>d) Spills of wastewater, reverse osmosis brine or chemicals outside of a vessel/container to be cleaned up immediately; and<br>e) All above ground infrastructure located on an impervious, bunded hardstand. | Volumetric flow metres are maintained on the reverse osmosis brine holding tank outlet, WWTP inlet and outlet to the irrigation sprayfield. |
| 3. | Reverse osmosis brine pipeline    | Not more than 30 m <sup>3</sup> /day of RO reject brine supplied to the WWTP for blending with effluent prior to discharge to the irrigation field.  | As shown in Schedule 2, Figure 2: Premises layout   |
| 4. | RO reject brine infrastructure    | a) 2x 50 kL reverse osmosis (RO) brine storage tanks;<br>b) A standpipe and pump able to be used   | As shown in Schedule 2, Figure 2 and Figure 3   |

|    | Site infrastructure and equipment | Operational requirement  | Infrastructure location  |
|----|-----------------------------------|--|--|
|    |                                   | <p>to fill water carts;</p> <p>c) Install flow meters on the WWTP RO reject line;</p> <p>d) Operated in a manner that that minimises damage to surrounding vegetation;</p> <p>e) RO reject brine not to be applied to topsoil stockpiles, vegetated areas, or on rehabilitated areas;</p> <p>f) RO reject brine only to be applied to active operational areas, hardstands and cleared ground;</p> <p>g) Undertake visual monitoring of native vegetation to ensure no impacts, if noted, the use of RO reject brine must cease in that location until vegetation stabilises;</p> <p>h) Windrows around cleared/ operational work areas must be maintained to prevent runoff;</p> <p>i) RO reject brine must not to be used within major creek lines or drainage channels or in the vicinity of Conservation Significant Flora Species or Groundwater Dependant vegetation; and</p> <p>j) Any RO reject brine used for dust suppression must be applied in a manner that minimises damage to surrounding vegetation.</p> |  |
| 5. | Perimeter fence                   | maintain a perimeter fence around the Aboriginal heritage site, referred to as KAR057-01.  | To be located around Aboriginal Heritage site (Archaeological Place KAR057-01) |
| 6. | Chemical storage                  | All chemical to be stored separately within an above ground vessel/s that is contained within bunds of a capacity of 110% of the total vessel contents.  | As shown in Schedule 2, Figure 3   |

## Emissions and discharges

### Water discharges

2. The licence holder must ensure that the emission specified in Table 2, is discharged only from the corresponding discharge points and only at the corresponding discharge point location.

**Table 2: Authorised discharge points**

| Emission         | Discharge Point                                       | Discharge point location   |
|------------------|---|--|
| Blended effluent | Sprinklers within the irrigation sprayfield           | Irrigation sprayfield as shown in Schedule 1, Figure 1: Premises layout                                  |
| RO reject brine  | Used as dust suppression within the premises boundary | RO reject brine only to be applied as dust suppressant within the area indicated in Schedule 1, Figure 3 |

3. The licence holder must ensure that the emissions from the discharge point listed in Table 3 does not exceed the corresponding limit(s) when monitored in accordance with condition 6.

**Table 3: Emission and discharge limits**

| Discharge point  | Parameter                             | Concentration limit |
|--|---------------------------------------|---------------------|
| Outflow point from the WWTP to the irrigation infrastructure | pH                                    | 6.5 – 8.5           |
|  | <i>E.coli</i>                         | 1,000 cfu/100mL     |
|  | 5 day Biochemical Oxygen Demand (BOD) | 20 mg/L             |
|  | Total Dissolved Solids                | 2,000 mg/L          |
|  | Total Suspended Solids                | 30 mg/L             |
|  | Total nitrogen                        | 30 mg/L             |
|  | Total phosphorus                      | 2 mg/L              |
|  | Total chlorine                        | 2.0 mg/L            |
| RO reject brine for dust suppression                         | Total Dissolved Solids                | 2600 mg/L           |
|  | pH                                    | 6.5 – 8.5           |
|  | Electrical conductivity               | 4000 µS/cm          |

## Monitoring

4. For the monitoring activity required by condition 6, the licence holder must:
  - (a) Record the results;
  - (b) Handle and preserve all water samples during monitoring or the WWTP in accordance with Australian Standard 5667.1:1998 *Water Quality – Sampling*; and
  - (c) Have analysis conducted by a laboratory with current National Association of Testing (NATA) accreditation for the parameters specified.
5. The licence holder must ensure all monitoring equipment used to comply with condition 6 is operated and calibrated in accordance with the manufacturer's specifications.
6. The licence holder must monitor emissions in accordance with Table 4.

**Table 4: Emissions and discharge monitoring**

| Discharge point                       | Monitoring location                         | Parameter  | Frequency              | Averaging period | Unit           |
|---------------------------------------|---|--|------------------------|------------------|----------------|
| Irrigation sprayfield                 | WWTP outlet                                 | <i>E.coli</i>  | Quarterly <sup>2</sup> | Spot sample      | Cfu/100 ml     |
|                                       |   | Thermotolerant coliforms                                       |                        |                  |                |
|                                       |   | 5 day biological oxygen demand (BOD)                           |                        |                  |                |
|                                       |   | Total suspended solids (TSS)                                   |                        |                  |                |
|                                       |   | Total nitrogen   |                        |                  |                |
|                                       |   | Total phosphorus   |                        |                  |                |
|                                       |   | Total dissolved solids (TDS)                                   |                        |                  |                |
|                                       |   | Residual chlorine <sup>1</sup>                                 |                        |                  |                |
|                                       |   | pH <sup>1</sup>  |                        |                  | pH units       |
|                                       |   | Cumulative flow volume discharged to the irrigation sprayfield | Continuous             | N/A              | m <sup>3</sup> |
| Reverse osmosis brine pipeline outlet | Cumulative flow volume supplied to the WWTP |  |                        |                  |                |

| Discharge point                               | Monitoring location                                       | Parameter                    | Frequency           | Averaging period | Unit           |
|---|---|------------------------------|---------------------|------------------|----------------|
| RO reject brine discharge as dust suppression | Via RO reject tanks and Standpipe as depicted in Figure 2 | Total dissolved solids (TDS) | Monthly             | Spot sample      | mg/L           |
|   |   | Electrical conductivity      |                     |                  | µS/cm          |
|   |   | pH                           | Daily or continuous | N/A              | pH units       |
|   |   | Cumulative flow volume       | continuous          |                  | m <sup>3</sup> |

Note 1: in-field non-NATA accredited analysis is permitted

Note 2: quarterly monitoring must be undertaken such that there are at least 45 days in between the days on which samples are taken

- The licence holder must monitor inputs and outputs in accordance with Table 5 during operation.

**Table 5: Monitoring of inputs and outputs during premises operation**

| Input/Output   | Monitoring point reference                                   | Parameter                         | Units               | Averaging period | Frequency                       |
|--|--|-----------------------------------|---------------------|------------------|---------------------------------|
| Sewage wastes  | Inflow point to WWTP   | Volumetric flow rate (cumulative) | m <sup>3</sup> /day | Continuous       | Monthly                         |
| Treated wastewater and blended effluent discharged to irrigation network | Outflow point from the WWTP to the irrigation infrastructure | Volumetric flow rate (cumulative) |                     |                  |                                 |
| RO reject brine discharged to the WWTP irrigation tanks                  | Reverse osmosis brine pipeline outlet                        | Volumetric flow rate (cumulative) |                     |                  |                                 |
| RO reject brine discharged as dust suppression                           | RO reject tanks and standpipe as depicted in Figure 2        | Volumetric flow rate (cumulative) |                     |                  |                                 |
| Sludge   | N/A  | Weight                            | Tonnes              | N/A              | Each load removed from the WWTP |

## Records and reporting

- 8.** 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.
- 9.** 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 90 days after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 10.** 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) any maintenance of infrastructure that is performed in the course of complying with condition and 1 of this licence;
  - (c) monitoring programmes undertaken in accordance with conditions and 4-7 of this licence; and
  - (d) complaints received under condition 8 of this licence.
- 11.** The books specified under condition 10 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.

## Definitions

In this licence, the terms in Table 6 have the meanings defined.

**Table 6: 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.  |
| Blended effluent                      | Means effluent to be irrigated to the irrigation sprayfield consisting of up to 30 m <sup>3</sup> /day of RO reject brine and up to 78 m <sup>3</sup> /day of treated effluent from wastewater.   |
| books                                 | has the same meaning given to that term under the EP Act.   |
| CEO                                   | means Chief Executive Officer of the Department.<br>"submit to / notify the CEO" (or similar), means either:<br>Director General<br>Department administering the <i>Environmental Protection Act 1986</i><br>Locked Bag 10<br>Joondalup DC WA 6919<br>or:<br><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> (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                                | <i>Environmental Protection Act 1986</i> (WA)   |
| EP Regulations                        | <i>Environmental Protection Regulations 1987</i> (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.   |
| monthly period                        | means a one-month period commencing from 2 <sup>nd</sup> of a month until 1 <sup>st</sup> of the immediately following month.   |

| <b>Term</b>         | <b>Definition</b>  |
|---------------------|--|
| 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  |
| RO reject brine     | Means undiluted reverse osmosis reject brine   |
| waste               | has the same meaning given to that term under the EP Act.  |

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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).

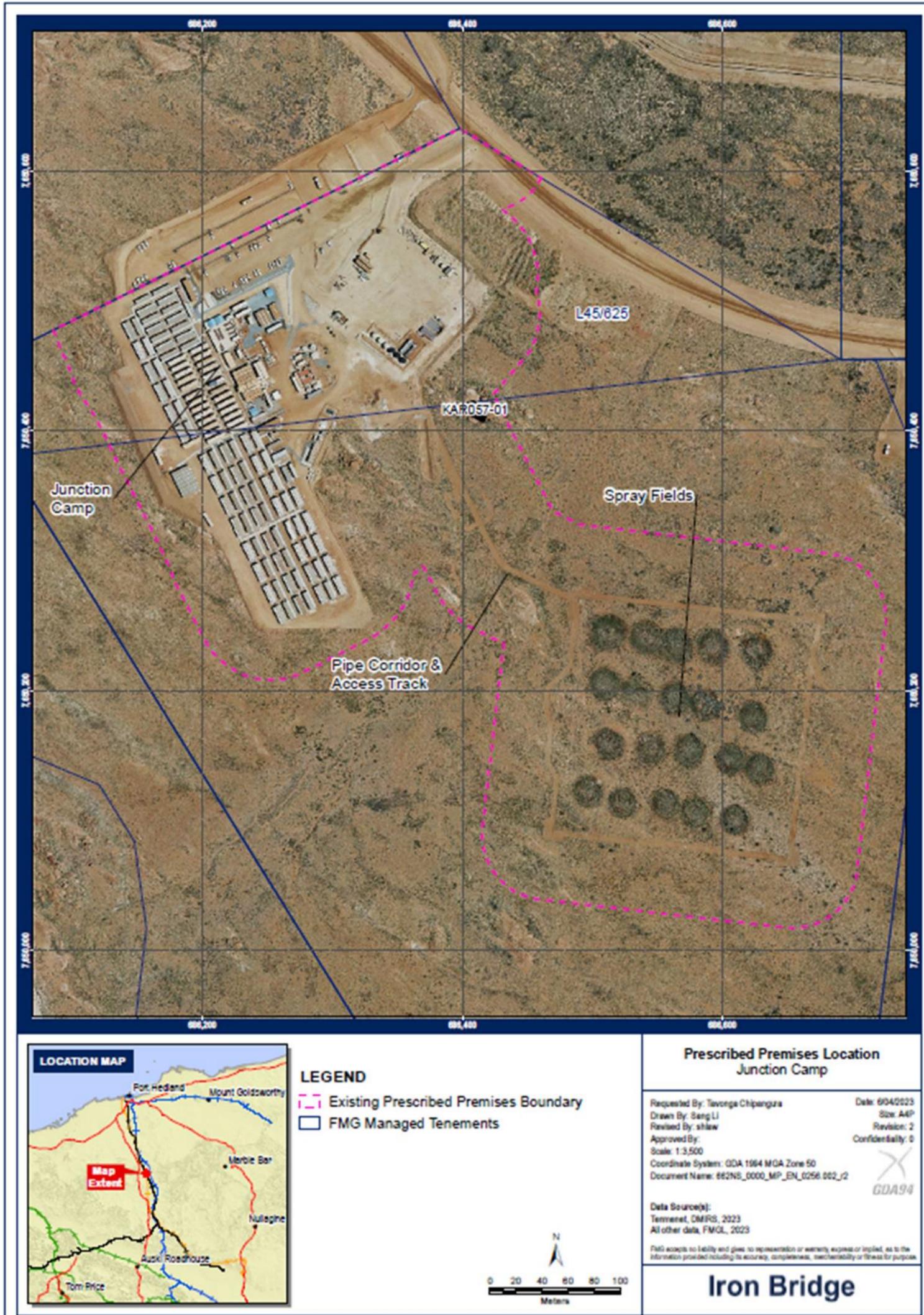


Figure 1: Map of the boundary of the prescribed premises

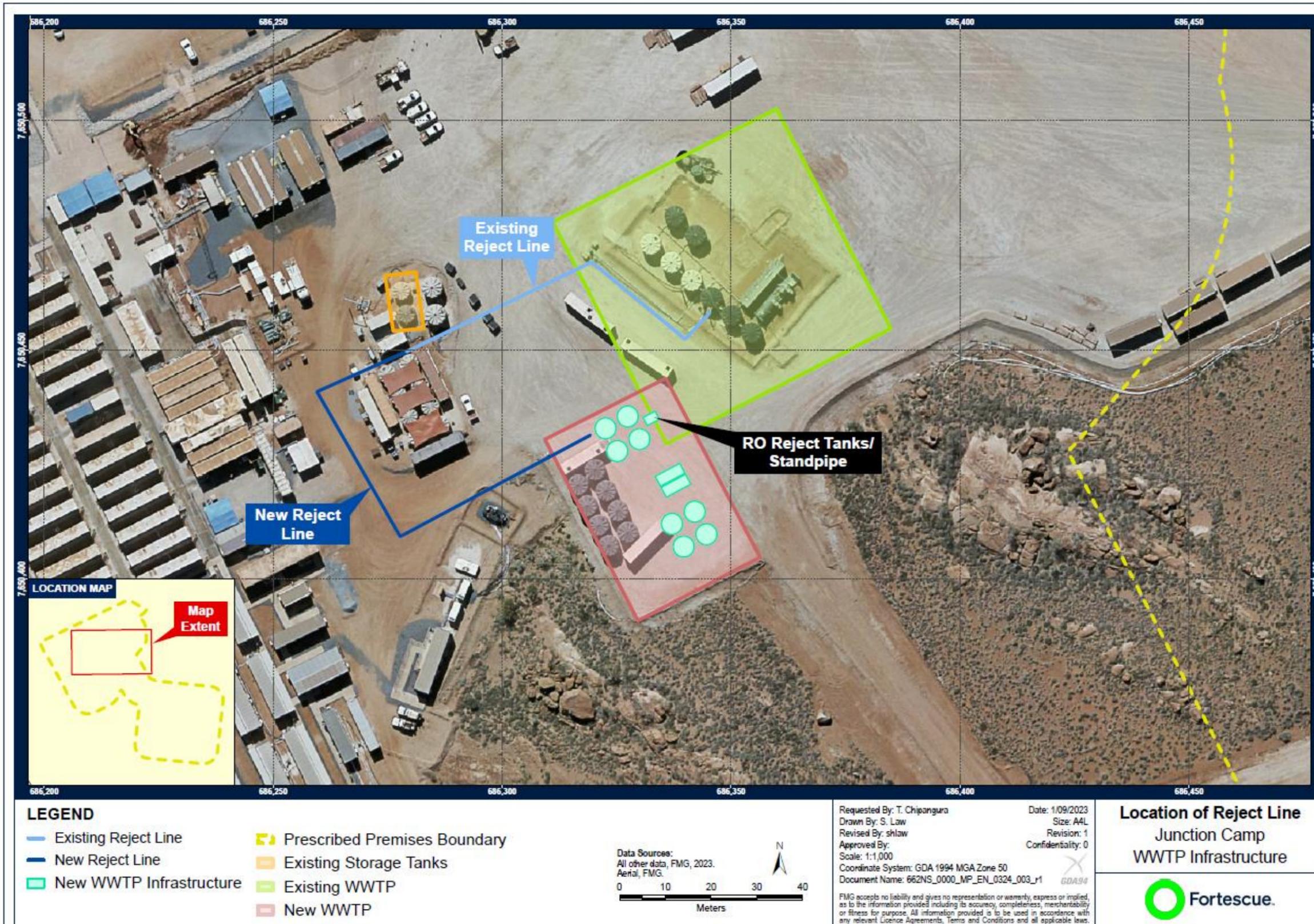


Figure 2: WWTP Infrastructure



Figure 3: RO Reject brine for Dust Suppression