



# Works Approval

|                                    |  |
|------------------------------------|--|
| <b>Works Approval Number</b>       | W6160/2018/1   |
| <b>Works Approval Holder</b>       | Fortescue Metal Group Ltd                            |
| <b>ACN</b>                         | 002 594 872  |
| <b>Registered business address</b> | Level 2/87<br>Adelaide Terrace<br>EAST PERTH WA 6004 |
| <b>File Number</b>                 | DER2018/001024                                       |
| <b>Duration</b>                    | 28/09/2018 to 27/09/2021                             |
| <b>Date of issue</b>               | 28/09/2018   |
| <b>Prescribed Premises</b>         | Category 85  |
| <b>Premises</b>                    | Eliwana Fly Camp WWTP<br>M47/1523                    |

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 28 September 2018, by:

**Stephen Checker**  
**MANAGER WASTE INDUSTRIES**

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

## Explanatory notes

These explanatory notes do not form part of this Works Approval.

### Defined terms

---

Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

### Department of Water and Environmental Regulation

---

The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

### Works Approval

---

Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987* (WA) (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

### Responsibilities of Works Approval Holder

---

Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and
- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

### Reporting of incidents

---

The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

### Offences and defences

---

The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

### Authorised Emissions and Discharges

---

The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

### Amendment of Works Approval

---

The Works Approval Holder can apply to amend the Conditions of this Works Approval

under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative of the CEO without an application being made.

#### Duration of Works Approval

---

The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

#### Suspension or revocation

---

The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

# Definitions and interpretation

## Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

| Term               | Definition   |
|--------------------|--|
| AS 3780            | Means the Australian Standard for the Storage and Handling of Corrosive Substances.  |
| Books              | has the same meaning given to that term under the EP Act.  |
| CEO                | means Chief Executive Officer.<br>CEO for the purposes of notification means:<br>Director General<br>Department Administering the <i>Environmental Protection Act 1986</i><br>Locked Bag 33 Cloisters Square<br>PERTH WA 6850<br><a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>  |
| cfu                | means colony-forming unit.   |
| Commissioning      | means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specification set out in the works approval application.  |
| Condition          | means a condition to which this Works Approval is subject under s.62 of the EP Act.  |
| 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.  |
| Department Request | means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to:<br>(a) compliance with the EP Act or this Works Approval;<br>(b) the Books or other sources of information maintained in accordance with this Works Approval; or<br>(c) the Books or other sources of information relating to Emissions from the Premises. |
| Discharge          | has the same meaning given to that term under the EP Act.  |
| DWER               | Department of Water and Environmental Regulation   |

|                                      |   |
|--------------------------------------|---|
| Emission                             | has the same meaning given to that term under the EP Act.   |
| Environmental Harm                   | has the same meaning given to that term under the EP Act.   |
| EP Act                               | means the <i>Environmental Protection Act 1986</i> (WA).  |
| EP Regulations                       | means the <i>Environmental Protection Regulations 1987</i> (WA).  |
| Implementation Agreement or Decision | has the same meaning given to that term under the EP Act.   |
| Inspector                            | means an inspector appointed by the CEO in accordance with s.88 of the EP Act.  |
| NATA                                 | means National Association of Testing Authorities.  |
| Pollution                            | has the same meaning given to that term under the EP Act.   |
| Premises                             | refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval. |
| Prescribed Premises                  | has the same meaning given to that term under the EP Act.   |
| Serious Environmental Harm           | has the same meaning given to that term under the EP Act.   |
| Spray Irrigation Field               | means 1.87ha area used to discharge treated effluent from the EWWTP via sprinkler   |
| Unreasonable Emission                | has the same meaning given to that term under the EP Act.   |
| Waste                                | has the same meaning given to that term under the EP Act.   |
| Works                                | refers to the Works described in Schedule 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions.      |
| Works Approval                       | refers to this document, which evidences the grant of the works approval by the CEO under s.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.                     |
| WWTP                                 | means Wastewater Treatment Plant  |

## Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (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 means the version of the standard, guideline or code of practice in force at the time of granting of this Works Approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Works Approval; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

## Conditions

### Infrastructure and equipment

1. The Works Approval Holder must install and undertake the Works for the infrastructure and equipment:
  - (a) specified in Column 1;
  - (b) to the requirements specified in Column 2; and
  - (c) at the location specified in Column 3of Table 2 below.
2. The Works Approval Holder must not depart from the requirements specified in Column 2 of Table 2 except:
  - (a) where such departure does not increase risks to public health, public amenity or the environment; and
  - (b) all other Conditions in this Works Approval are still satisfied.
3. Subject to Condition 1, within 30 days of the completion of the Works specified in Column 1 of Table 2, and prior to Commissioning, the Works Approval Holder must provide to the CEO a report/engineering/building certification from a suitably qualified engineer confirming each item of infrastructure or component of infrastructure specified in Column 1 of Table 2 below has been constructed with no material defects and to the requirements specified in Column 2.

4. Where a departure from the requirements specified in Column 2 of Table 2 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure along with the certification required by Condition 3.

**Table 2: Infrastructure and equipment requirements table**

| Column 1   | Column 2  | Column 3                               |
|--|---|--|
| Infrastructure/<br>Equipment   | Requirements (design and construction)  | Site plan<br>reference                 |
| All (excluding<br>Spray Irrigation<br>Field)   | <p>a) All sewage storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks or defects.</p> <p>(b) All sewage conveyance, storage and treatment infrastructure must be designed and constructed to ensure that stormwater does not enter the sewage treatment system and sewage and treated wastewater storage infrastructure.</p>  | As shown in<br>Schedule 3 Site<br>Plan |
| Containerised<br>Sewage<br>treatment<br>system<br>(excluding<br>Spray Irrigation<br>Field and<br>service pipeline) | <p>The sewage treatment system must be designed and constructed so as to meet the following specifications:</p> <p>(a) All above ground infrastructure located on a hardstand and be bunded;</p> <p>(b) Be able to receive and treat a sewage inflow of up to 70 m<sup>3</sup>/ day;</p> <p>(c) Able to treat sewage to the following emission standards:</p> <ul style="list-style-type: none"> <li>• Biochemical oxygen demand ≤20 mg/L;</li> <li>• Total suspended solids ≤30 mg/L;</li> <li>• pH ≥6.5 and ≤8.5;</li> <li>• Total nitrogen ≤30 mg/L;</li> <li>• Total phosphorus ≤8 mg/L; and</li> <li>• <i>Escherichia coli</i> &lt;1000cfu/100 mL.</li> </ul> <p>(d) The Irrigation storage tank be capable of storing all treated wastewater not able to be discharged to the Spray irrigation Field;</p> <p>(e) Direct all treated effluent to the 1.87ha Spray Irrigation Field;</p> <p>(f) Have a sealed connection point for pumping-out tank sludge for offsite disposal to a licensed waste facility;</p> | As shown in<br>Schedule 3 Site<br>Plan |



| Column 1                     | Column 2   | Column 3                               |
|------------------------------|--|--|
| Infrastructure/<br>Equipment | Requirements (design and construction)   | Site plan<br>reference                 |
|                              | <p>(g) Chemicals, including sodium hypochlorite, must be stored separately within an above ground vessel/s located on a hardstand enclosed by bunds with a holding capacity of 110% of the total vessel/s contents; and</p> <p>(h) Chemicals must be stored in accordance with Australian Standard AS3780.</p>   |  |
| Spray irrigation<br>Field    | <p>a) Install above ground sprinklers;</p> <p>b) Maintain a 2m vertical separation distance from groundwater levels;</p> <p>c) Ensure no ponding or pooling of treated wastewater occurs within the spray irrigation field;</p> <p>d) Ensure that no treated effluent enters any water course; and</p> <p>e) Maintain a 5m spray drift buffer from the edge of the sprinkler radius.</p> | As shown in<br>Schedule 3 Site<br>Plan |

## Emissions

5. The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 3, subject to the exclusions, limitations or requirements specified in Column 2, of Table 3.

**Table 3: Authorised Emissions table**

| Column 1  | Column 2  |
|---|---|
| Emission type   | Exclusions/Limitations/Requirements   |
| <b>Specified Emissions</b>  |   |
| Treated wastewater via irrigation                                       | Subject to Compliance with Condition 4 and Table 2 and Conditions 6, 7, 8, and 9.   |
| <b>General Emissions<br/>(excluding Specified Emissions)</b>            |   |
| Emissions which arise from undertaking the Works set out in Schedule 2. | <p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> <li>• Unreasonable Emissions; or</li> <li>• Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or</li> <li>• Discharges of Waste in circumstances likely to cause Pollution; or</li> <li>• Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or</li> <li>• Emissions or Discharges which do not comply with an Approved Policy; or</li> <li>• Emissions or Discharges which do not comply with prescribed standard; or</li> <li>• Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or</li> <li>• Emissions or Discharges the subject of offences under regulations prescribed under the EP Act,</li> </ul> |

| Column 1      | Column 2  |
|---------------|---|
| Emission type | Exclusions/Limitations/Requirements   |
|               | including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> . |

## Commissioning

6. The Works Approval Holder must notify the CEO in writing one week prior to the commencement of Commissioning.
7. Commissioning must not exceed a period of 6 weeks from the date of commencement of Commissioning.
8. The Works Approval Holder must undertake treated wastewater monitoring during Commissioning:
  - (a) at the location specified in Column 1;
  - (b) for the parameters specified in Column 2;
  - (c) for the units specified in Column 3;
  - (d) at the frequency specified in Column 4; and
  - (e) using the methods specified in Columns 5 and 6.

Of Table 5 below

**Table 5 Commissioning monitoring**

| Treated Wastewater Monitoring                           |                           |          |           |                  |               |
|---|---------------------------|----------|-----------|------------------|---------------|
| Column 1  | Column 2                  | Column 3 | Column 4  | Column 5         | Column 6      |
| Emission Point Reference                                | Parameters                | Units    | Frequency | Averaging Period | Method        |
| Treated Wastewater Outlet to the Spray Irrigation Field | Biochemical oxygen demand | mg/L     | Weekly    | Spot sample      | AS/NZ 5667.11 |
|   | Total suspended solids    |          |           |                  |               |
|   | Total phosphorus          |          |           |                  |               |
|   | Total nitrogen            |          |           |                  |               |

| Treated Wastewater Monitoring |                  |             |            |          |          |
|-------------------------------|------------------|-------------|------------|----------|----------|
| Column 1                      | Column 2         | Column 3    | Column 4   | Column 5 | Column 6 |
|                               | pH               | pH units    |            |          |          |
|                               | Escherichia coli | cfu/ 100 mL |            |          |          |
|                               | Volume           | kL/day      | Continuous |          |          |

9. The Works Approval Holder must provide to the CEO a commissioning report within one month of the completion of the commissioning including:
- a summary of monitoring results recorded under Condition 8;
  - the original monitoring reports submitted to the Works Approval Holder from third parties for the commissioning period;
  - a summary of the environmental performance of the plant as installed, against the design specification set out in Condition 4;
  - a review of performance against the works approval conditions; and
  - where they have not been met, measures proposed to meet the design specification and/or works approval conditions, together with timescales for implementing the proposed measures.

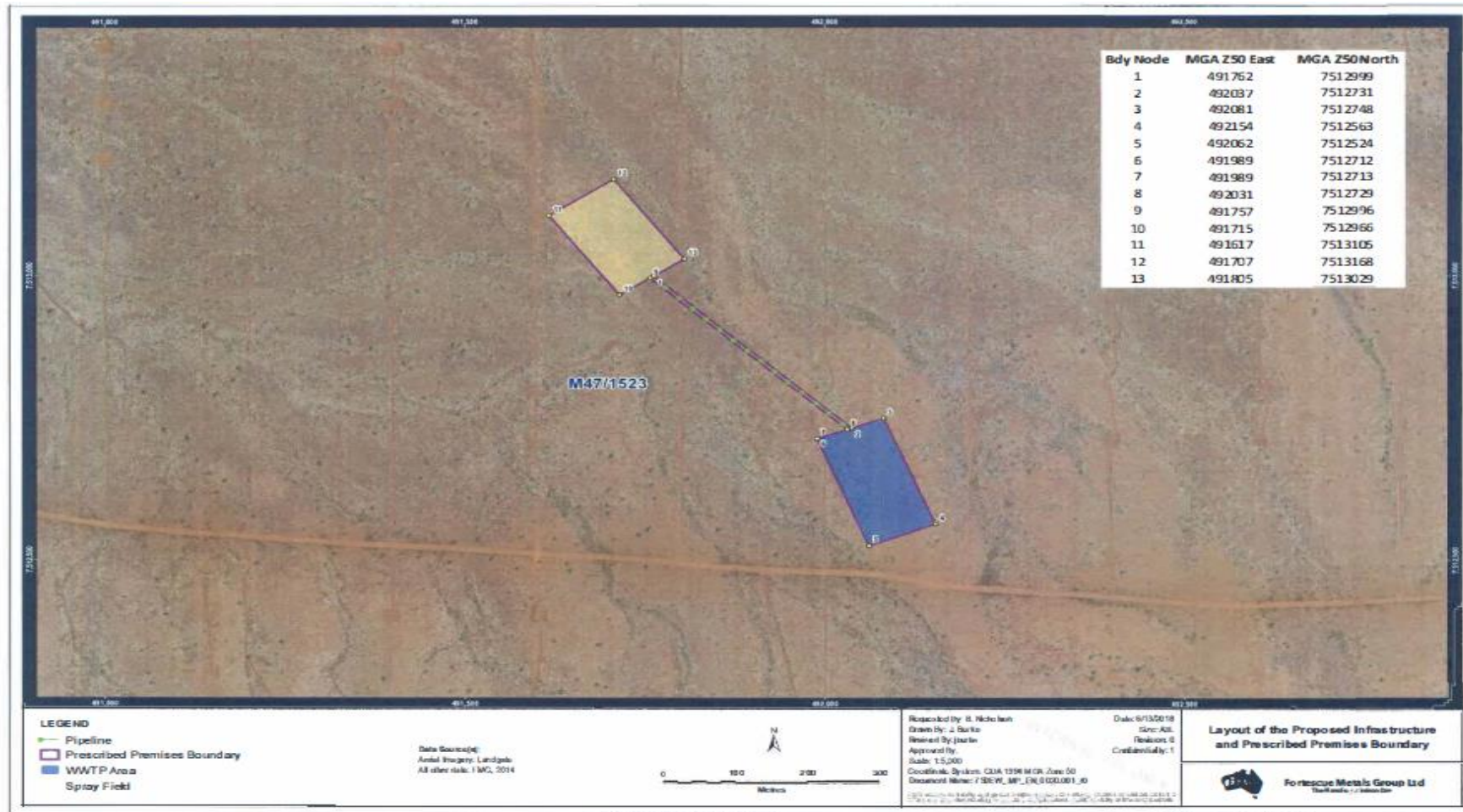
## Record-keeping

10. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and the Books must:
- be legible;
  - if amended, be amended in such a ways that the original and subsequent amendments remain legible or are capable of retrieval;
  - be retained for at least 3 years from the date the Books were made;
  - be available to be produced to an Inspector or the CEO.
11. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

## Schedule 1: Maps

### Premises map

The Premises are shown in the map below.



W6160/2018/1

File Number: DER2018/001024

IR-T05 Works Approval Template v2.0 (July 2017)

## Premises boundary

The Premises boundary is defined by the coordinates in Table 4.

**Table 4: Premises boundary coordinates**

| Polygon Vertex | Easting (mE) | Northing (mN) |
|----------------|--------------|---------------|
| 1              | 491762       | 7512999       |
| 2              | 492037       | 7512731       |
| 3              | 492081       | 7512748       |
| 4              | 492154       | 7512563       |
| 5              | 492062       | 7512524       |
| 6              | 491989       | 7512712       |
| 7              | 491989       | 7512713       |
| 8              | 492031       | 7512729       |
| 9              | 491757       | 7512996       |
| 10             | 491715       | 7512966       |
| 11             | 491617       | 7513105       |
| 12             | 491707       | 7513168       |
| 13             | 491805       | 7513029       |

## Schedule 2: Works

At the time of assessment, Emissions and Discharges from the Works listed in Table 5 were considered in the determination of the risk and related Conditions for the Works Approval.

**Table 5: Authorised Works**

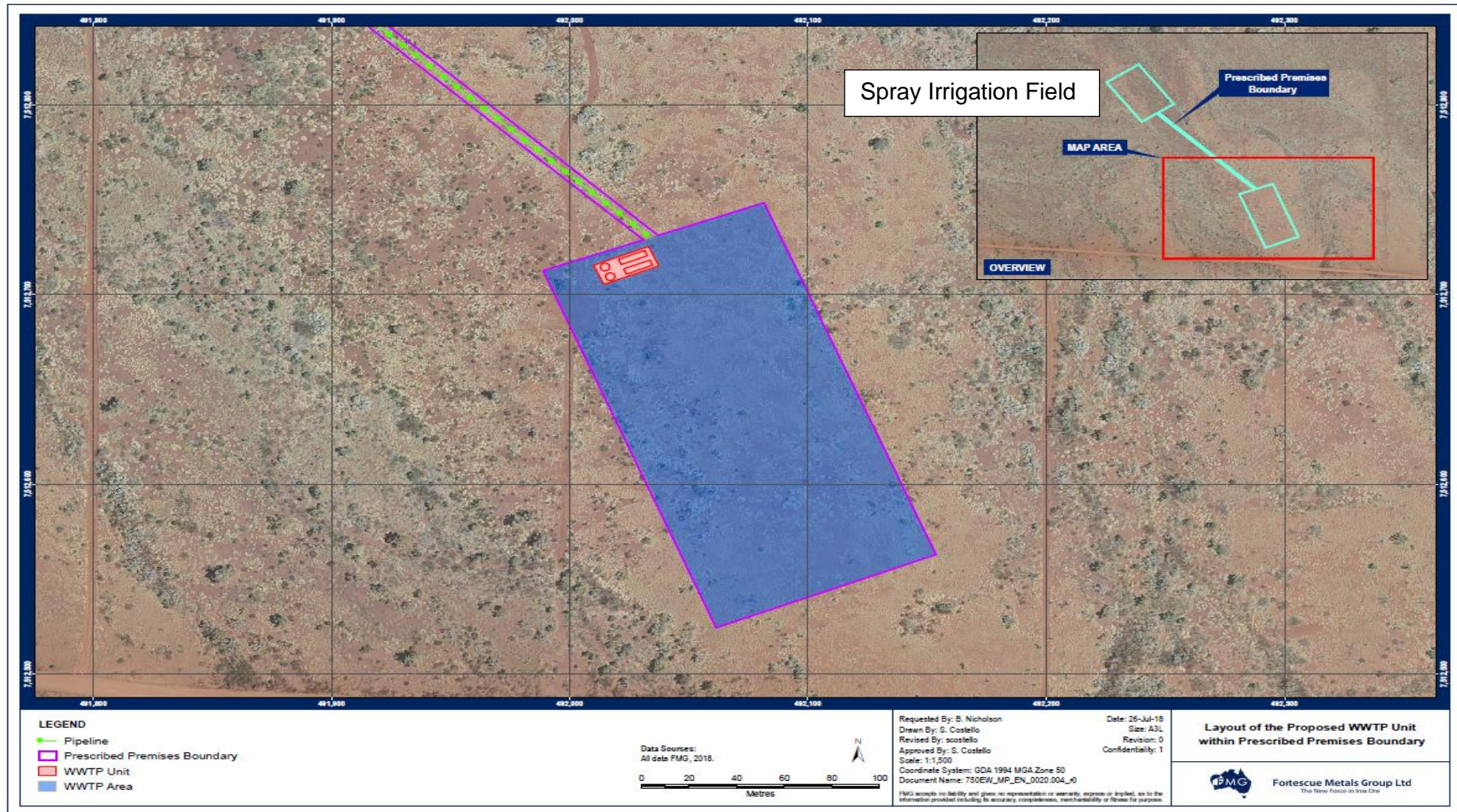
| Works                  | Specifications/Drawings   |
|------------------------|---|
| Inlet Screen           | Schedule 3 Site Plan - represents the two (2) containerised modules |
| Balance Tank           |   |
| Primary Tank 1 & 2     |   |
| Anoxic Tank            |   |
| Aerobic Tank           |   |
| Clarifier              |   |
| Chlorine Contact Tank  |   |
| Irrigation Tank        |   |
| Spray Irrigation Field |   |

### Site layout

The infrastructure and equipment are set out on the Premises in accordance with the site layout specified on the Site Plan in Schedule 3.



## Schedule 3: Site Plan



W6160/2018/1  
File Number: DER2018/001024

IR-T05 Works Approval Template v2.0 (July 2017)