Government of Western Australia
Department of Water and Environmental Regulation

# Decision Report

## Application for Works Approval

### Part V Division 3 of the *Environmental Protection Act 1986*

| | |
|---|---|
| **Works Approval Number** | W2957/2025/1 |
| **Applicant** | FMG Nullagine Pty Ltd |
| **ACN** | 153 447 646 |
| **DWER file number** | APP-0028531 |
| **Premises** | Nullagine Pilot Wind Farm<br><br>Legal description -<br>Mining tenements G46/9, L46/74, L46/82, L46/83, L46/93, L46/95, L46/114, L46/119, M46/515, M46/522, M46/535.<br>NULLAGINE WA 6758<br>As defined by the map in Schedule 1 of the Works Approval |
| **Date of report** | 9 October 2025 |
| **Decision** | Works approval granted |

Alana Kidd

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**Alana Kidd**
**Manager, Green Energy**
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

## Table of Contents

# 1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W2957/2025/1 has been granted.

# 2. Scope of assessment

## 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

## 2.2 Application summary and overview of premises

On 15 April 2025, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to the construction and operation of the Nullagine Pilot Wind Farm at the premises. The premises is approximately 19 km South-west of Nullagine Town Reserve.

The premises boundary includes part of the wind farm infrastructure.

The premises relates to the categories and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2957/2025/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W2957/2025/1.

### 2.2.1 Category 12: Crushing and Screening

A mobile crushing/screening plant with a capacity of up to 600,000 tonnes per year will be brought to site, set up and operated. The location of the mobile plant will be on mining lease M45/515 and will be powered by diesel generators of 1,500 kVA.

The applicant estimates the plant will require 100 kL/day of water, including use by water carts, for dust suppression. This water will be extracted under the *Rights in Water and Irrigation Act 1914* (RIWI Act) groundwater bores (5C Licence GWL171278(7)).

### 2.2.2 Category 54: Sewage Facility

The Waste Water Treatment Plant (WWTP) WWTP will be a Sequential Batch Reactor (SBR) sewage treatment system (comprised of three interconnected modular EcoFarmer units or similar). The WWTP will support the workers for the construction of the Nullagine Pilot windfarm, and will have the capacity to treat the wastewater from 550 people.

The WWTP will have a maximum throughput of 240 $m^3$/day. The proposed daily discharge will be comprised of 165 $m^3$ of treated sewage blended with 75 $m^3$ of reverse osmosis (RO) brine discharge.

Brine generated from the potable water treatment plant will be stored within the designated RO reject tanks. The WWTP inorganic waste and waste sludge will be disposed off-site, at a licensed facility.

#### Assessment of wastewater discharge to land

The wastewater will be discharged into two irrigation fields sized at; 7.5 ha and 5.7 ha, which will have a combined area of 13.2 ha. A 5km pipeline corridor will join the sprayfields to the WWTP and other

associated infrastructure, including power supply, fuel storage and water supply.

The applicant confirmed that the irrigation field size was designed to comply with *Water Quality Protection Note 22: Irrigation with Nutrient-Ritch Wastewater* (WQPN 22) (DOW 2008) to prevent nutrient loading occurring as a result of the disposal of treated effluent.

The estimated total nitrogen (TN) load is 20 mg/L which will be 1,205 kg/year nitrogen discharged to the irrigation fields.

The estimated total phosphorus (TP) load is 7.5 mg/L which will be 452 kg/year discharged to the irrigation fields.

Total suspended solids (TSS) < 30 mg/L

Total dissolved solids (TDS) < 2,8000 mg/L

The minimum irrigation area for the proposed nutrient loading is 3.76 ha, which is smaller than the proposed area of 13.2 ha.

The applicant has calculated an irrigation rate of 2.8 mm/day per $m^2$. Based on the maximum irrigation rate of roughly 4.5 mm per day, the effluent water into the sub-soil structure will be minimal in the proposed area.

## Wastewater quality

The applicant proposes to discharge a maximum of 240 $m^3$/day of treated wastewater to the irrigation spray-fields, comprised of 165 $m^3$ of treated sewage blended with 75 $m^3$ RO brine discharge.

The applicant will have to obtain the approval from the Department of Health before constructing and operating the proposed WWTP.

The irrigation sprayfields are located far from creek lines and are outside the 1% Annual Exceedance Probability (AER) flood extent, reducing the risk of direct discharge and runoff of treated wastewater into natural watercourses (Figure 1).

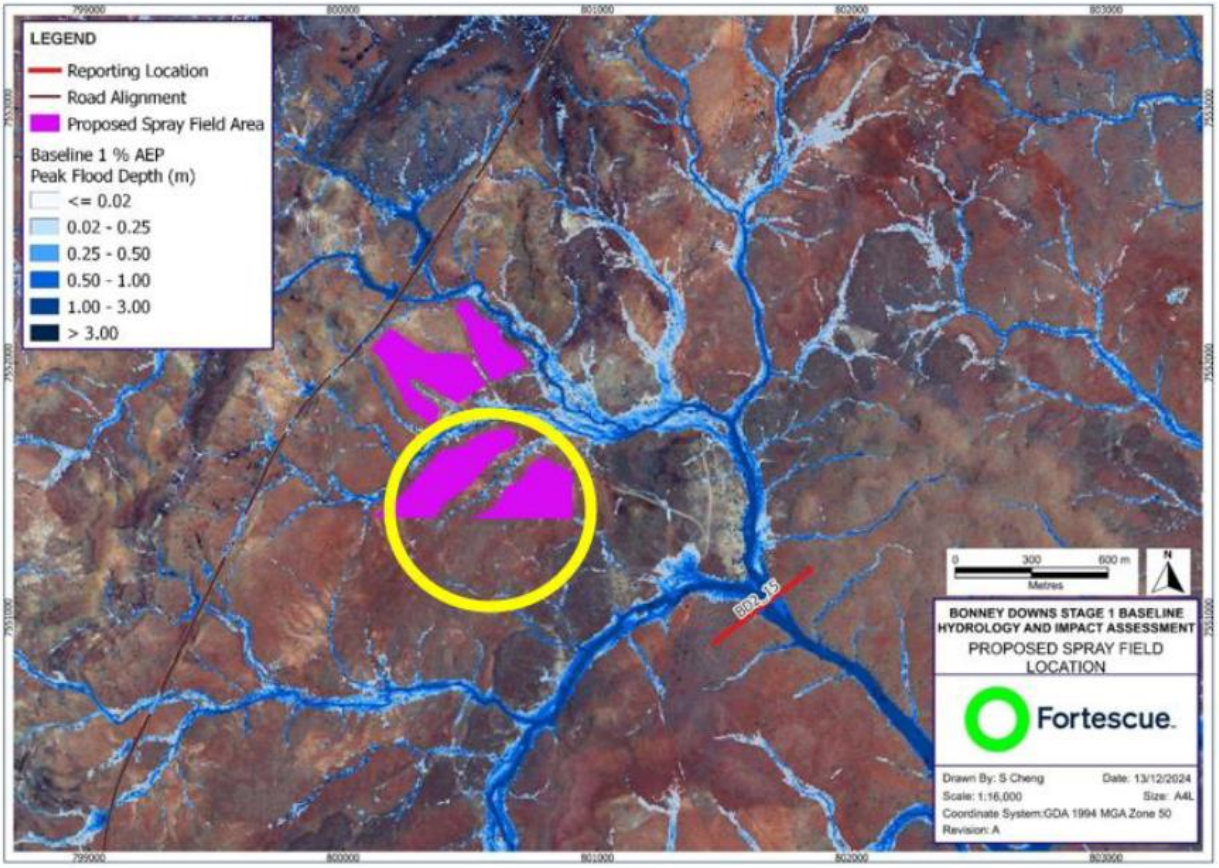


**Figure 1: Baseline 1% AEP Maximum Flood Depth and Spray Field Locations**

### 2.2.3 Category 77: Concrete batching plant

The premises will have a concrete batching plant for construction purposes with a design capacity of 50,000 tonnes per year. The concrete will be used outside of the premises boundary, hence Category 77 of the *Environmental Protection Regulations 1987* applies.

The concrete will be used for the Nullagine Pilot Wind Farm (wind turbines and associated infrastructure), transmission lines and associated infrastructure and other Fortescue projects (as required), both within and outside the prescribed premises boundary.

The operation of the batching plant will be operated in accordance with the *Environmental Protection (Concrete Batching and Cement Manufacturing) Regulations 1998*.

### 2.2.4 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The proposal was granted EPBC2009/4930 approval, which was modified on 5 March 2024, where the proposal was changed and new conditions under EPBC2013/6887 were established.

The proposal area assessed under EPBC Act is smaller than the proposed area for this new works approval, including only mining tenements M46/522 and M46/523.

The EPBC Act approval includes conditions regarding:

- Maximum clearing area; and

- Conservation of Northern Quoll.

### 2.2.5 Mining Act 1978

Nullagine Pilot Wind Farm Mining Development and Closure Proposal (MDCP) was submitted to Department of Mines, Petroleum and Exploration (DMPE) on 7 July 2025.

1. The MDCP will include the following activities:
    a. 17 wind turbines.
    b. 55 km of 220 kV power transmission lines.
    c. Substations and other supporting infrastructure.
    d. Camp accommodation and other buildings/laydowns.

The works approval holder stated that the active Nullagine Mine Mining Proposal already encompasses the premises activities.

### 2.2.6 Clearing permit

The applicant applied for clearing, permit number CPS 11067-1. The clearing permit includes conditions that will regulate the clearing actions, but it will not control the construction works or operational actions within the premises. Species that will be managed by the clearing permit are listed below.

a) *Dasyurus hallucatus* (northern quoll) – clearing avoidance during breeding season;
b) *Falco hypoleucos* (grey falcon) – avoidance of trees containing nests and potential nesting trees and further targeted surveys;
c) *Liasis olivaceus barroni* (Pilbara olive python);
d) *Dasycercus blythi* (brush-tailed mulgara);
e) *Pseudomys chapmani* (western pebble-mound mouse, ngadji) - Identify and demarcate all pebble-mound mouse mounds and mulgara burrows and an avoidance radio of 50 metres; and
f) *Pezoporus occidentalis* (night parrot) – pre-clearing surveys.

Conditions in the clearing permit include recommendations regarding for:

a) pre-clearance protocols, including directional clearing towards remnant vegetation;
b) undertake passive relocation management actions prior to and during clearing; and
c) undertake active relocation management if necessary.

**Priority Ecological Communities (PEC)/Priority Flora**, it is recommended that:

a) the area is demarcated to avoid unintentional clearing within the PEC boundary; and
b) Appropriate weed hygiene procedures be implemented.

## 3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

## 3.1 Source-pathways and receptors

### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction / operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls**

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| **Construction** | | | |
| Dust | Placement of insfrastructure and associated equipment including vehicle movements (reversing beepers)<br><br>Construction work for proposed categories | Air / windborne pathway | Water cart used to manage dust.<br>Water sprays fitted to dust generating equipment where practicable. |
| Noise | | Air / windborne pathway | Applicant will be compliant with Section 6 of the Australian Standard 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites. |
| Contaminated stormwater (hydrocarbon and sediment) | | Discharges to land | Diversion structures including bunds, channels, windrows and drains construction.<br>Spillages within the proposed premises boundary are likely to be localised, contained and of a small volume.<br>Any spills will be rectified as soon as reasonable possible. |
| **Operation** | | | |
| **Category 12: Crushing and Screening** | | | |
| Dust | Screening, crushing, unloading, loading and storage of material<br><br>Vehicle movements, reversing alarms<br>Crushing | Air/windborne pathway | Water cart used to manage dust.<br>Water sprays operational during material processing and when visible dust is produced. |
| Noise | | Air/windborne pathway | No control specified. |
| Sediment laden stormwater (hydrocarbon and sediment) | | Overland runoff and discharges to land | Diversion structures including bunds, channels, windrows and drains are maintained to divert stormwater, washdown and spillage water runoff from the MCSF work area to a collection and/or settling sump.<br>Collection and/or settling sump is maintained with capacity to store washdown and spillage water runoff from the MCSF working areas. |
| **Category 54: Sewage Facility** | | | |
| Sewage, | WWTP and | Overtopping | **General controls:** |

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| partially treated sewage and/or nutrient rich treated<br>RO water mixed with effluent<br>Raw brine | pipelines | of sewage holding tanks resulting in sewage discharge<br>Rupture of pipes resulting in sewage discharge | (a) Volumetric flowmeters are maintained on the WWTP inlet and outlet to the irrigation spray fields.<br>(b) Earthen bunding (or similar) is maintained around the WWTP perimeter.<br>(c) Sludge is removed by a licensed waste carrier for disposal to a licensed disposal facility.<br>(d) Chemicals are stored in accordance with Australian Standard *AS 3780:2008 Storage and Handling of Corrosive Substances*.<br>(e) Spills are cleaned up as soon as practicable.<br>**RO Reject**:<br>(a) Maintained and free of leaks and defects.<br>(b) Connected to a volumetric flowmeter to monitor the daily volume of RO reject delivered to WWTP or effluent tank for blending.<br>(c) Spills are cleaned up as soon as practicable.<br>**Pipeline:**<br>(a) Flowmeters maintained.<br>(b) Visual inspection for detection of leaks. |
| Nutrient rich treated effluent<br>RO water mixed with effluent<br>Raw brine<br>Spray drift<br>Chemicals from RO plant | Irrigation Fields (1 and 2) | Direct planned discharges to spray fields | (a) Maintained and free of leaks and defects.<br>(b) Minimum distance from major watercourses is 100m.<br>(c) Buffer distance of 5 m between sprinklers and perimeter fence.<br>(d) A minimum of two metres vertical separation will be maintained between the irrigated surface and the end of the wet-season water table to maintain aerobic soils.<br>(e) Fences with appropriate safety signage installed. |
| **Category 77: Concrete batching plant – operated in accordance with** *Environmental Protection (Concrete Batching and Cement Manufacturing) Regulations 1998*. | | | |
| Dust/ cement | Concrete batching operation<br>Cement unloading and storage<br>Stockpiles of aggregate<br>Vehicle movements | Air/windborne pathway | Water cart.<br>Use of dust control sprays during material handling. |
| Noise | Cement batching | Air/windborne | Mobile concrete batch plant will be located at specific locations to reduce truck movements and |

| Emission | Sources | Potential pathways | Proposed controls |
|---|---|---|---|
| | operation | pathway | reduce noise. |
| Sediment laden stormwater including concrete waste, hydrocarbon and sediment | Operation of concrete batching plant and associated infrastructure | Overland runoff and discharges to land | All water from within the work area shall drain to one or more sediment basins, silt traps, settlement ponds or similar, to avoid release of material to the surrounding environment.<br>Plant to be located away from major surface water bodies.<br>Designated collection points and sedimentation traps for treatment prior to re-use or release to the surrounding environment in accordance with Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ, 2000) and WQPN 68 - Mechanical Equipment Washdown water quality limits. |

### 3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

**Table 2** below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

| Human receptors | Distance from prescribed activity |
|---|---|
| Residential Premises | None within 2km – Odour risk has been removed from the assessment due to absence of residential premises. |
| **Environmental receptors** | **Distance from prescribed activity** |
| Native vegetation | Eucalyptus low open woodland (ElAbTl)<br>Triodia low hummock grassland (ElGwTe)<br>Eucalyptus mid open woodland (EvAcCc)<br>*Acacia inaequilatera* dominated vegetation types (AiCpTe1, AiCpTe2, and AiSgTb)<br>Aristida low tussock grassland (VfAl)<br>**Priority species** (Environment Protection Biodiversity Conservation Act 1999 [EPBC Act]):<br>-*Ptilotus mollis* (**Priority 4**) within premises boundary.<br>-*Stemodia sp*. Battle Hill (**Priority 1**) within premises boundary.<br>Locations shown on Figure 2 and Figure 3. |
| TECs/PECs | TECs - Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungaroona Range') in northern part of premises withing the premises |

<table>
<tr><td></td><td>Locations shown on Figure 3.</td></tr>
<tr><td>Fauna</td><td>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act):<br>Short-Tailed Mouse (Leggadina lakedownensis) (Least-concern)<br>Pseudomys chapmani (western pebble-mound mouse, ngadji) (Least-concern)<br>Dasycercus blythi (brush-tailed mulgara) (Least-concern)<br>Falco hypoleucos (grey falcon) (Vulnerable)<br>Liasis olivaceus barroni (Pilbara olive python) (Vulnerable)<br>Pezoporus occidentalis (night parrot) (Critically Endangered)<br>Dasyurus hallucatus (northern quoll) (Endangered) - presence confirmed around premises. This species is managed under EPBC 2013/6887.<br>Locations shown on Figure 4.</td></tr>
<tr><td>Underlying groundwater</td><td>Depth to water table is 0 – 30 metres approximately and less than 5 metres in major drainage channels.<br>Locations shown on Figure 5.</td></tr>
<tr><td>Surface water</td><td>The premises intercepts several Nullagine River tributaries.<br>Locations shown on Figure 6 and Figure 7.<br>By the time this assessment was completed, the Permit to modify bed and banks still under assessment.</td></tr>
<tr><td>Aboriginal heritage sites<br>Native title: Palku Part A</td><td>FMG - Palyku Land Access ILUA is in place.
<table>
<tr><td>Mining tenement</td><td>Registered</td><td>Lodged</td></tr>
<tr><td>L 46/74</td><td>9 sites</td><td>6 sites</td></tr>
<tr><td>L 46/80</td><td>3 sites</td><td>5 sites</td></tr>
<tr><td>L 46/82</td><td>Nil</td><td>3 sites</td></tr>
<tr><td>L 46/83</td><td>15 sites</td><td>8 sites</td></tr>
<tr><td>L 46/84</td><td>Nil</td><td>One site</td></tr>
<tr><td>L 46/85</td><td>One site</td><td>One site</td></tr>
<tr><td>L 46/114</td><td>4 sites</td><td>9 sites</td></tr>
<tr><td>L 46/119</td><td>Nil</td><td>Two sites</td></tr>
<tr><td>M 46/515-I</td><td>8 sites</td><td>23 sites</td></tr>
<tr><td>M 46/522-I</td><td>Nil</td><td>Three sites</td></tr>
<tr><td>M 46/523</td><td>Nil</td><td>13 sites</td></tr>
<tr><td>M 46/535</td><td>Nil</td><td>Three sites</td></tr>
<tr><td colspan="3">Areas shown in Figure 8</td></tr>
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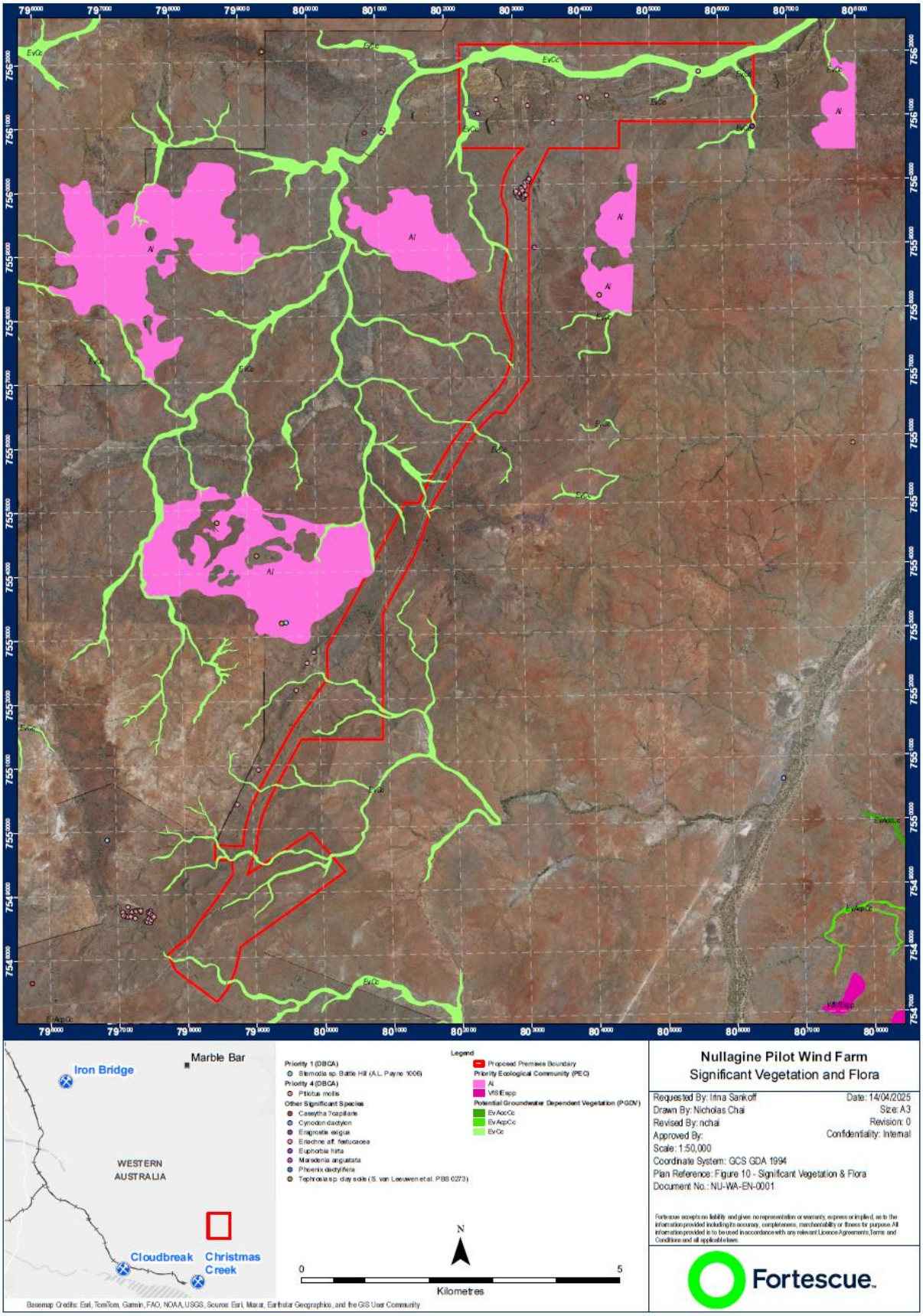


**Figure 2: Significant Vegetation and Flora**

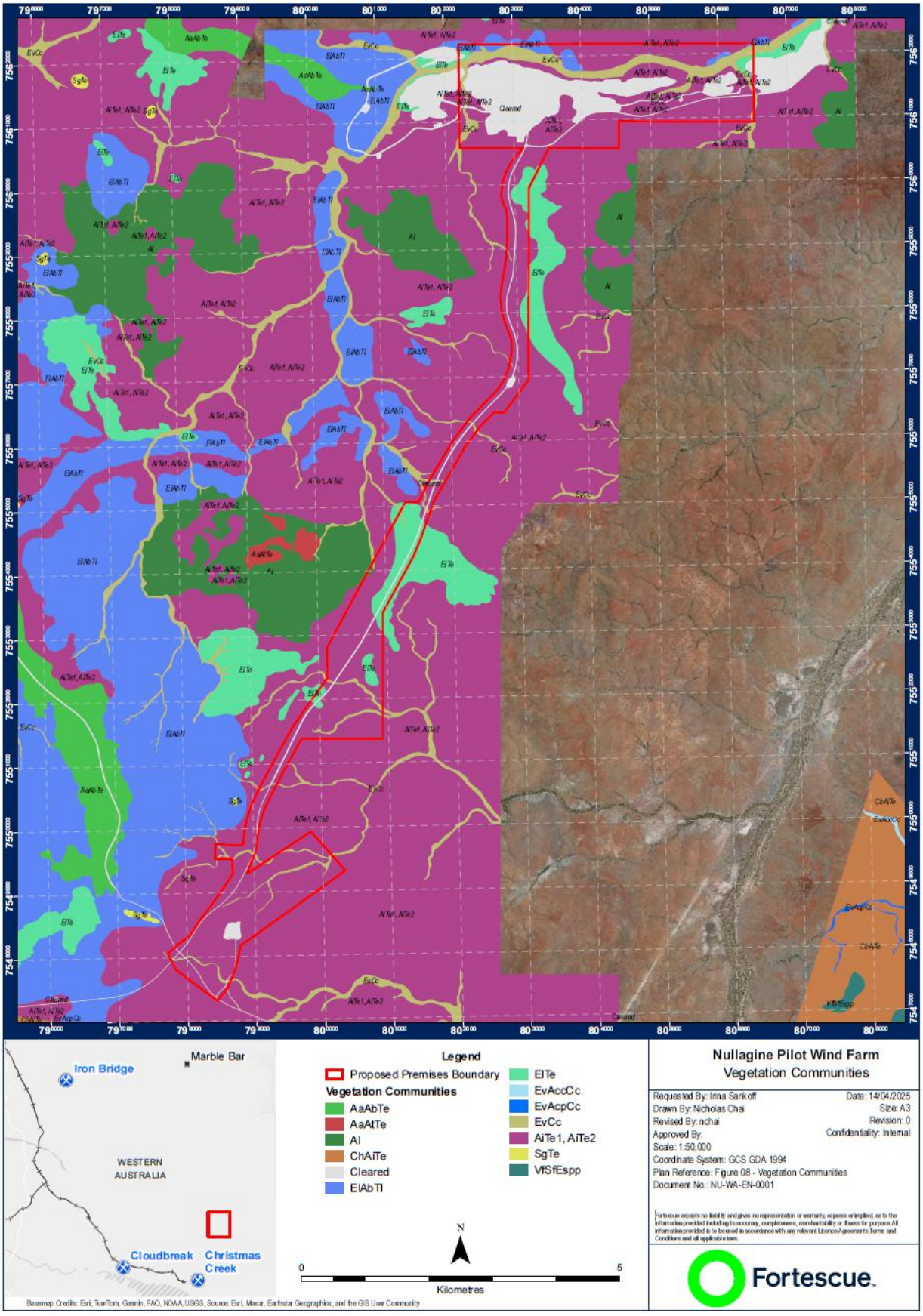


**Figure 3: Vegetation Communities**

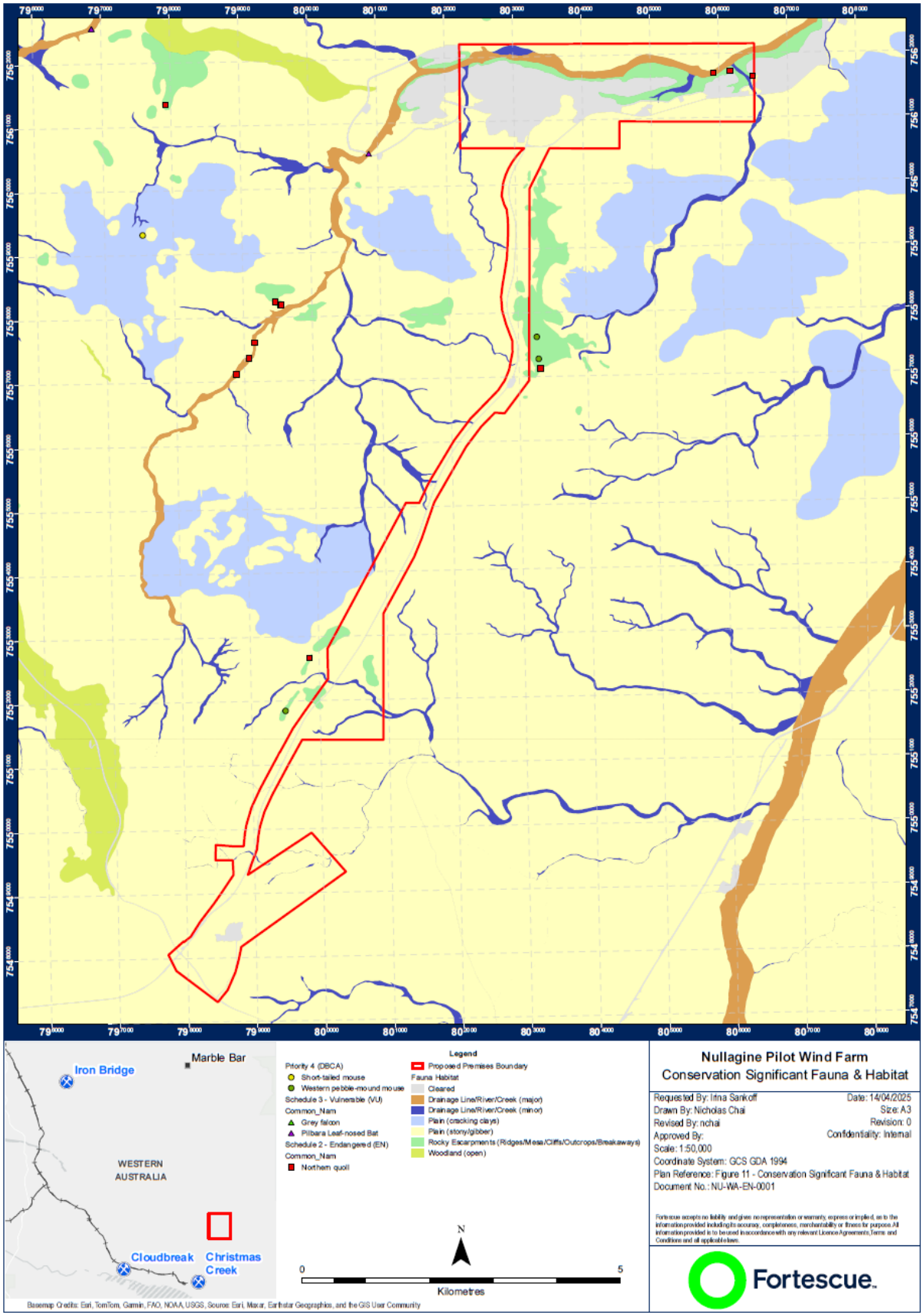


**Figure 4: Conservation Significant fauna and fauna Habitat**

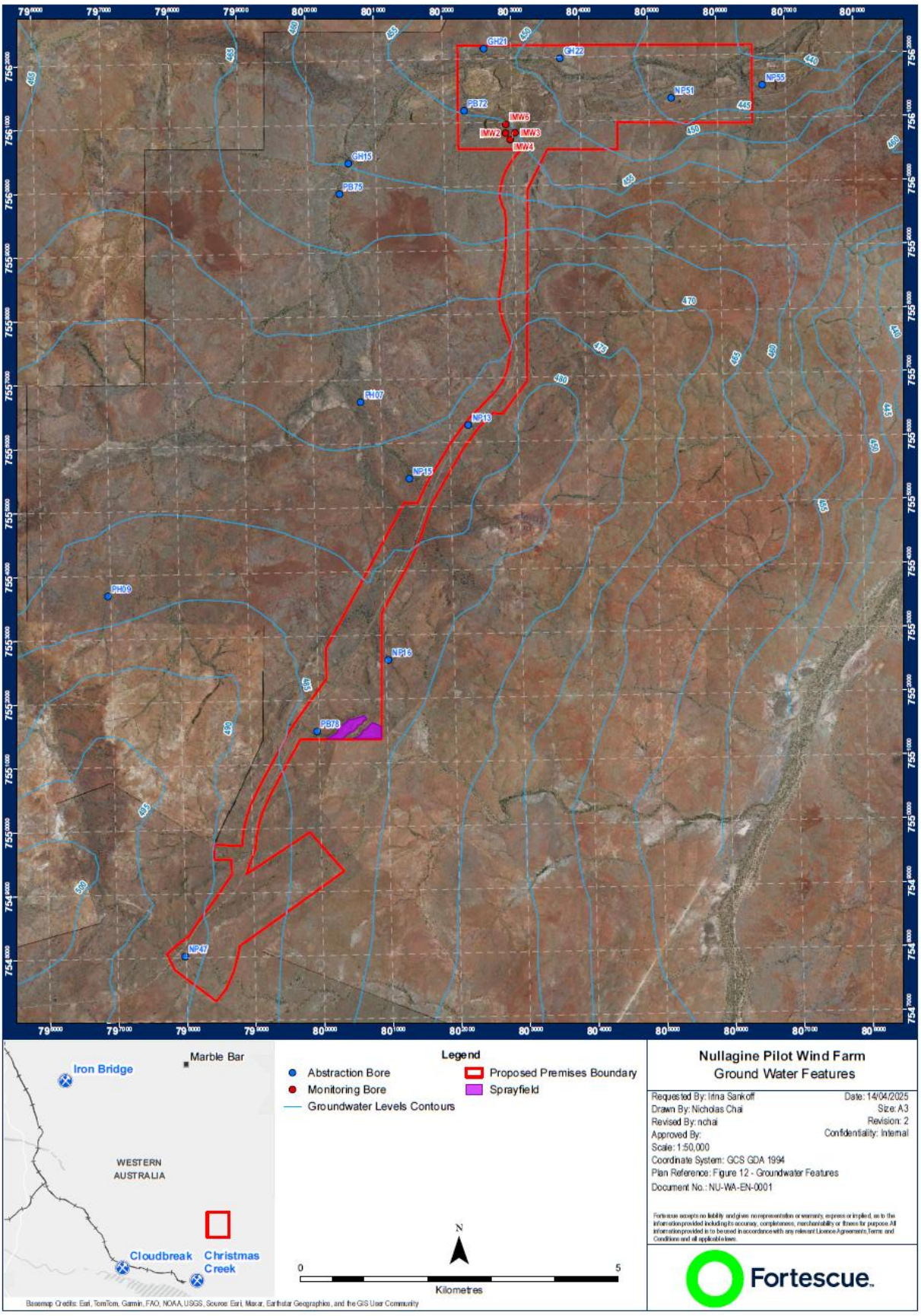


**Figure 5: Groundwater Contours**

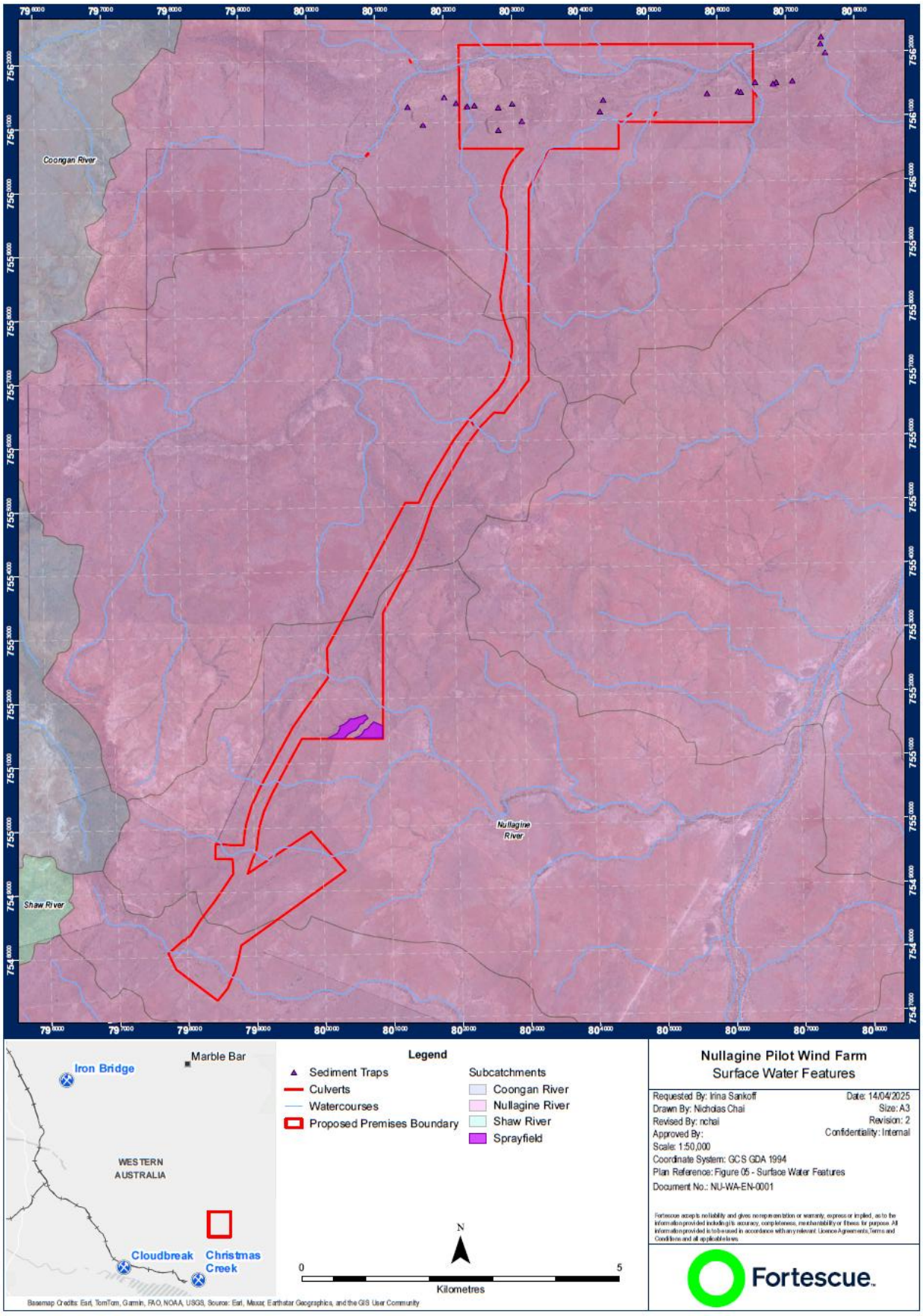


**Figure 6: Surface Water Features**

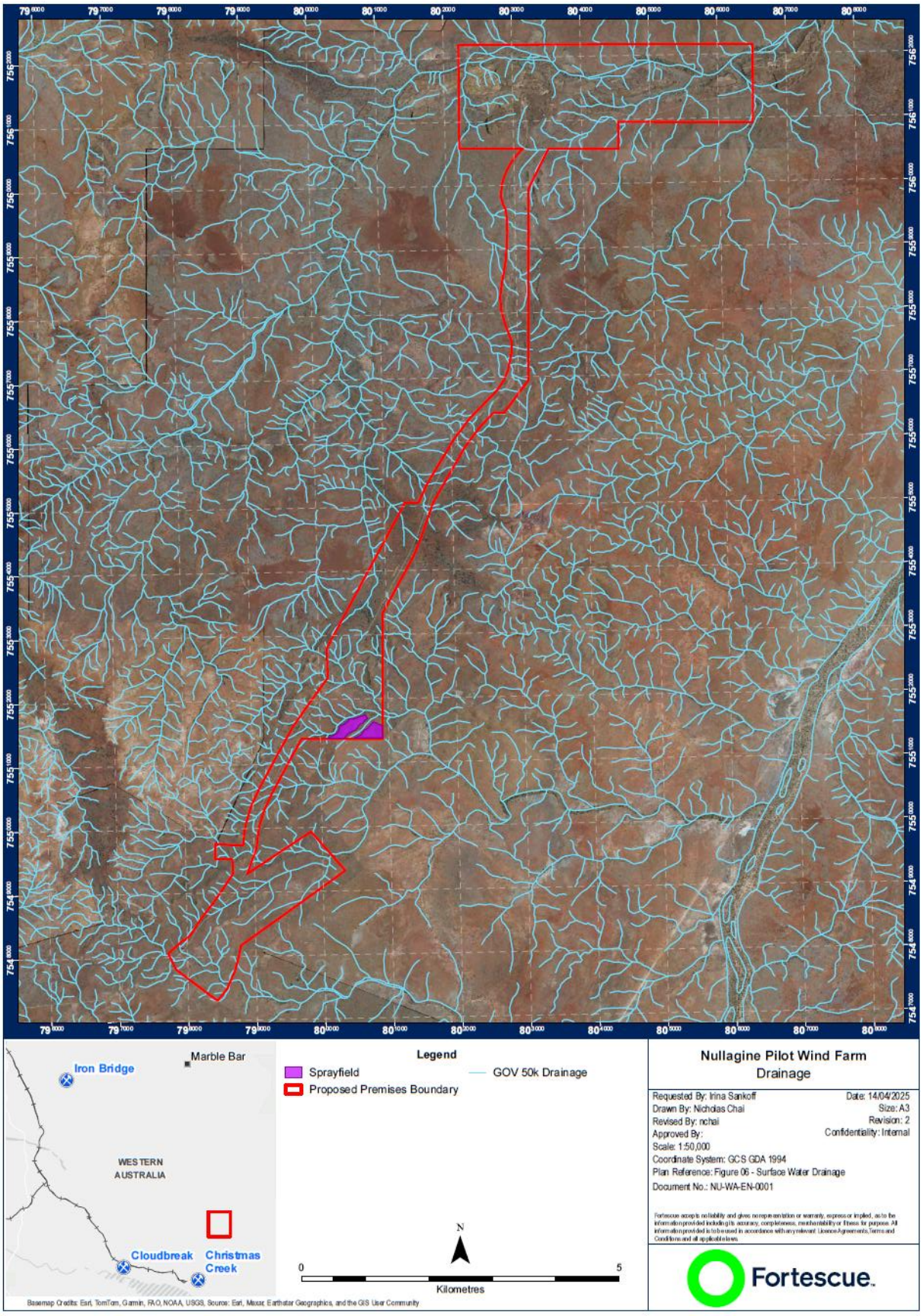


**Figure 7: Surface Water Drainage**

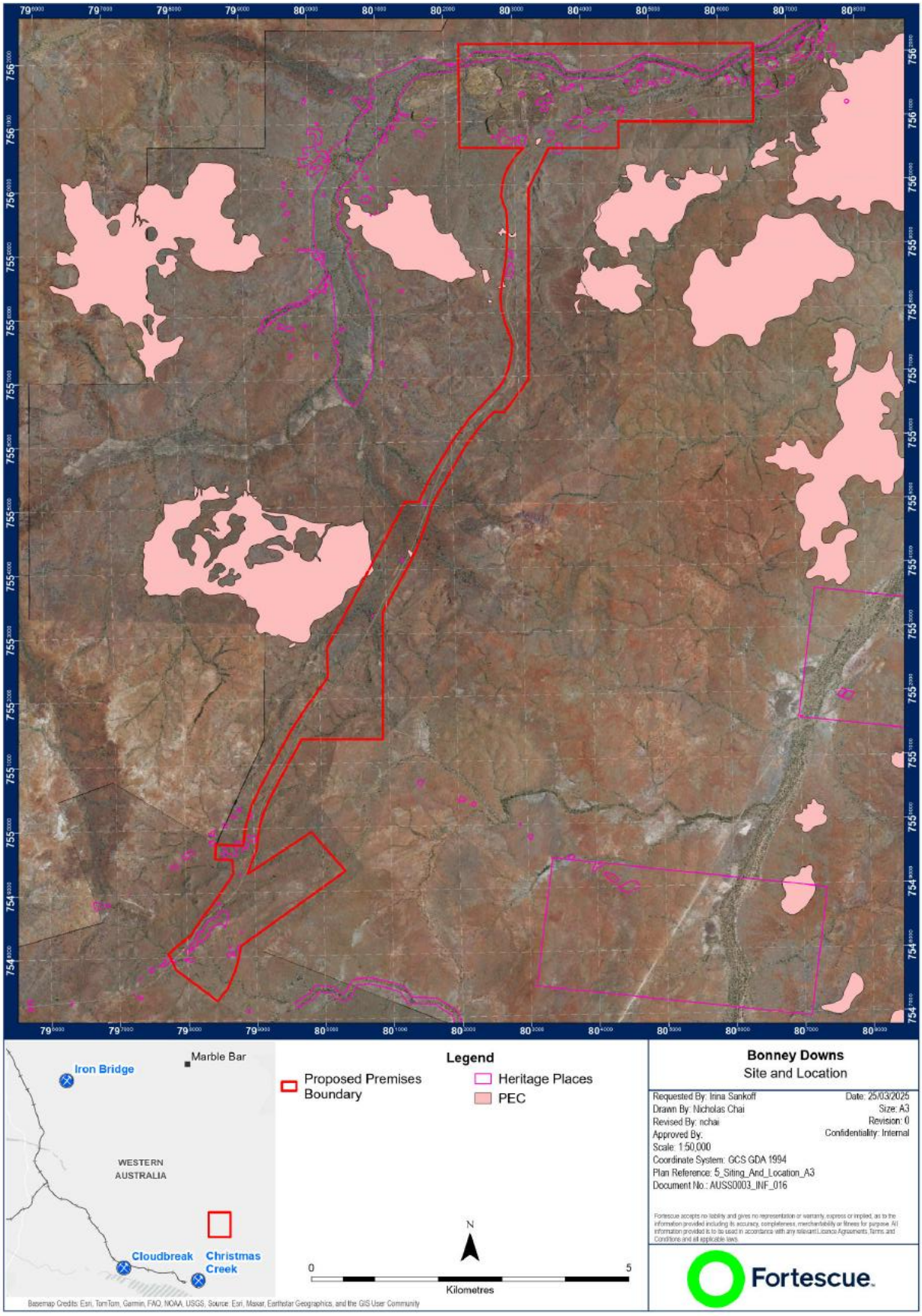


**Figure 8: Heritage places**

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Works approval W2957/2025/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise ongoing operation of the premises. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application and compliance documentation.

## Table 3: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation

| Risk events | | | | | Risk rating [1] C = consequence L = likelihood | Applicant controls sufficient? | Conditions [2] of works approval | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Sources / activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Applicant controls** | | | | |
| **Construction** | | | | | | | | |
| Placement of equipment including vehicle movements (reversing beepers)<br><br>Construction work for proposed categories | Dust | **Pathway**: Air/windborne pathway<br>**Impact**: Dust covering vegetation, reducing their photosynthetic potential | Native vegetation | Refer to Section 3.1 | C = Slight<br>L = Possible<br>**Low risk** | Y | **Condition 1** –<br>a) Use of water trucks during construction.<br>b) Mobile crushing and screening facility – installation of water misting systems.<br>c) Mobile concrete batching plant. | NA |
| | Noise | **Pathway:** Air/windborne pathway<br>**Impact:** animals' behavior may be affected by noise | Fauna | Refer to Section 3.1 | C = Slight<br>L = Possible<br>**Low risk** | Y | NA | The construction works must be done in accordance with the Environmental Protection (Noise) Regulations 1997. |
| | Contaminated stormwater (hydrocarbon and sediment) | **Pathway:** Discharges to land<br>**Impact:** Change of soil and surface water quality | Soil<br><br>Nullagine River tributaries | Refer to Section 3.1 | C = Slight<br>L = Possible<br>**Low risk** | Y | **Condition 1 –**<br>a) Installation of surface water diversion infrastructures. | NA |
| **Commissioning** | | | | | | | | |
| **Category 54: Sewage facility** | | | | | | | | |
| WWTP and pipelines | Sewage, partially treated sewage and/or nutrient rich | **Pathway**: Overtopping of sewage holding tanks resulting in | Soil and vegetation adjacent to area of spill | Refer to Section 3.1 | C = Slight<br>L = Possible<br>**Low risk** | Y | **Condition 5 –**<br>a) Level and failure alarms are maintained operational. | NA |

| Risk events | | | | | Risk rating [1] C = consequence L = likelihood | Applicant controls sufficient? | Conditions [2] of works approval | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Sources / activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Applicant controls** | | | | |
| | treated effluent<br>Brine discharge | sewage discharge<br>**Impact:** Soil contamination, inhibiting vegetation growth and survival.<br>Surface water contamination | Nullagine River tributaries | | | | | |
| | | **Pathway**: Rupture of pipes resulting in sewage discharge<br>**Impact:** Soil contamination, inhibiting vegetation growth and survival. Surface water contamination | Soil and vegetation at area of rupture<br>Nullagine River tributaries | Refer to Section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | Y | **Condition 5 –**<br>a) Volumetric flow meters must be maintained on the WWTP, RO brine pipeline and spray irrigation field. | NA |
| Irrigation Fields (1 and 2) | Nutrient rich treated effluent<br>Brine discharge | **Pathway**: Direct planned discharges to spray fields<br>**Impact:** Soil contamination and impact on groundwater quality | Soil and native vegetation<br>Groundwater quality | Refer to Section 3.1 | C = Slight<br>L = Likely<br>**Medium risk** | Y | **Condition 6 and 7** -<br>Authorised discharge point and monitoring conditions | NA |
| **Operation (including time-limited-operations operations)** | | | | | | | | |
| **Category 12: Screening of material** | | | | | | | | |
| Screening, crushing, unloading, loading and storage of material<br>Vehicle movements | Dust | **Pathway:** Air/windborne pathway<br>**Impact:** Dust covering | Native vegetation<br>Nullagine River tributaries | Refer to Section 3.1 | C = Slight<br>L = Likely<br>**Medium risk** | Y | **Condition 14** –<br>a) Mobile crushing and screening facility – water misting systems are maintained operational | NA |

| Risk events | | | | | Risk rating [1] C = consequence L = likelihood | Applicant controls sufficient? | Conditions [2] of works approval | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Sources / activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Applicant controls** | | | | |
| | | vegetation, reducing their photosynthetic potential<br>Changes to surface water characteristics | | | | | during processing.<br>b) Water cart used during operation | |
| | Noise | **Pathway:** Air/windborne pathway<br>**Impact:** Disruption to native fauna feeding and predatory interactions | Fauna | Refer to Section 3.1 | C = Slight<br>L = Likely<br>**Medium risk** | N | NA | Application of Section 6 of the Australian Standard 2436-1981 "*Guide to Noise Control on Construction, Maintenance and Demolition Sites*". |
| | Sediment laden stormwater | **Pathway:** Overland runoff and discharges to land<br>**Impact:** Change of soil and surface water quality | Soil<br>Nullagine River tributaries | Refer to Section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | Y | **Condition 14** –<br>(a) Diversion structures including bunds, channels, windrows and drains are maintained.<br>(b) Collection and/or settling sump is maintained. | NA |
| **Category 54: Sewage facility** | | | | | | | | |
| WWTP and pipelines | Sewage, partially treated sewage and/or nutrient rich treated effluent.<br>RO water mixed with effluent<br>Raw brine | **Pathway**: Overtopping of sewage holding tanks resulting in sewage discharge<br>**Impact:** Soil contamination, inhibiting vegetation growth and survival.<br>Surface water contamination | Soil and vegetation adjacent to area of spill<br>Nullagine River tributaries | Refer to Section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | | **Condition 14 –**<br>a) Monitoring flow from WWTP and RO brine pipeline and spray irrigation fields.<br>b) Maintenance of level alarms operational | NA |

| Risk events | | | | | Risk rating [1]<br>C = consequence<br>L = likelihood | Applicant controls sufficient? | Conditions [2] of works approval | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Sources / activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Applicant controls** | | | | |
| Irrigation Fields (1 and 2) | Nutrient rich treated effluent<br>RO water mixed with effluent<br>Raw brine | **Pathway**: Direct planned discharges to spray fields<br>Spray drift<br>Pooling<br>Infiltration through soil<br>**Impact:** Soil contamination and impact on groundwater quality.<br>Increase of weeds. | Soil and native vegetation<br>Groundwater quality | Refer to Section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | Y | **Condition 14 –**<br>a) Monitoring flow from WWTP and RO brine pipeline and spray irrigation fields.<br>b) Management of spray irrigation fields to avoid pooling.<br>c) Monitoring groundwater level, to maintain minimum vertical distance from irrigation spray field. | NA |
| **Category 77: Concrete batching** | | | | | | | | |
| Cement batching operation | Noise | **Pathway:** Air/windborne pathway<br>**Impact:** disruption to native fauna feeding and predatory interactions. | Fauna | Refer to Section 3.1 | C = Slight<br>L = Possible<br>**Low risk** | Y | NA | Application of Section 6 of the Australian Standard 2436-1981 "*Guide to Noise Control on Construction, Maintenance and Demolition Sites*". |
| Concrete batching operation<br>Cement unloading and storage<br>Stockpiles of aggregate<br>Vehicle movements | Dust | **Pathway:** Air/windborne pathway<br>**Impact:** high pH dust covering vegetation, reducing their photosynthetic potential.<br>High pH dust can | Native vegetation<br>Nullagine River tributaries | Refer to Section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | Y | **Condition 1 –** dust control measures | The applicant has proposed that the design and operation of the mobile concrete batching plant will comply with the requirements of the Concrete Batching Regulations. |

| Risk events | | | | | Risk rating [1]<br>C = consequence<br>L = likelihood | Applicant controls sufficient? | Conditions [2] of works approval | Justification for additional regulatory controls |
|---|---|---|---|---|---|---|---|---|
| **Sources / activities** | **Potential emission** | **Potential pathways and impact** | **Receptors** | **Applicant controls** | | | | |
| | | surface water characteristics | | | | | | Condition 1 of the works approval imposes construction requirements for the mobile concrete batching plant and ancillary infrastructure. This is in line with the applicant's proposed controls. |
| Operation of concrete batching plant and associated infrastructure | Sediment laden stormwater including waste concrete, hydrocarbons and sediment | **Pathway:** Overland runoff and discharges to land<br>**Impact:** Change of soil and surface water quality | Soil<br>Nullagine River tributaries | Refer to Section 3.1 | C = Minor<br>L = Possible<br>**Medium risk** | Y | NA | |

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

# 4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

| Consultation method | Comments received | Department response |
|---|---|---|
| Application advertised on the department's website on 2 June 2025 | No comments received | NA |
| Shire of East Pilbara advised of proposal on 29 May 2025 | No comments received | NA |
| Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advised of proposal 29 May 2025 | No comments received | NA |
| Department of Health (DoH) advised of proposal on 29 May 2025 | No comments received | NA |
| Department of Planning, Lands and Heritage (DPLH) advised of proposal on 29 May 2025 | Comments received on 26 June 2025:<br>The proponent should refer to the DPLH website at Aboriginal Heritage Approvals for information on 'Land use under the Aboriginal Heritage Act 1972' for the types of approvals available under the AHA that you can apply for.<br>Therefore, based on the current information held by DPLH approvals under the Aboriginal Heritage Act (AHA) are required.<br>Additionally, I wish to advise the following:<br>• The grant of the works approval does not impact the Aboriginal heritage of the area;<br>• Given that the granting of the works approval will facilitate development in the area the proponent (FMG) needs to contact the Aboriginal Heritage Conservation Team for their own advice prior to the commencement of works;<br>• It should be emphasised to the proponents that the granting of the works approval does not count as approval under the AHA.<br>Additionally, DPLH provided a list of Aboriginal Registered Sites and Places intersected by the proposed premises boundary. | The department acknowledges response and will review and update Aboriginal Registered Sites and Places on Table 2. |
| Palyku-Jartayi Aboriginal Corporation RNTBC advised of proposal on 29 May 2025 | No comments received | NA |

| | | |
|---|---|---|
| Applicant was provided with draft documents on 19 September 2025 | The applicant provided comments on 1 October 2025. Please refer to Appendix 1. | Comments from the department provided on Appendix 1. |

# 5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

# References


1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water (DOW), July 2008. Water Quality Protection Note 22 (WQPN22): *Irrigation with nutrient rich wastewater*. Perth, Western Australia. Accessed at: www.wa.gov.au
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

# Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

| Condition | Summary of applicant's comment | Department's response |
|---|---|---|
| Cover page | Applicant requested to update tenements. | The department reviewed the proposed changed to the tenements and confirmed that they cover the premises boundary and the tenements were updated accordingly. |
| General Works Approval conditions | Minor administrative amends. | The department agreed. |
| 1 – Table 1 | Applicant requested to:<br><br>Remove components from construction requirements, which included the use of excavator, front end loader and dozer, as they are not directly related to the crushing/screening activities;<br><br>Removal of general condition regarding components for the WWTP as other sub-provision provides specifications for the components.<br><br>Removal of specifications of WWTP components, to have flexibility with the design (e.g. number of flow balance tanks, etc.).<br><br>Changes to the discharge targets, specifically regarding "free chlorine" to "residual free chlorine", also for commissioning and time limited operations conditions.<br><br>Removal of irrigation fields condition to maintain 2 metre vertical separation between irrigated surface and the wet season water table, as the groundwater table at the sprayfields is expected to be between 11 – 20 metres. | The department agreed.<br>The department added the total dissolved solids target for the WWTP, to align with the decision report.<br><br>Dust emission will still need to be managed. |
| 17 | Change the monitoring frequency for the WWTP from weekly to monthly for TLO. | The department agreed. |
| 20 | Applicant requested to modify reporting condition to remove wastewater processed volumes and ore processed during time limited operations.<br>Removal of reporting condition regarding landfill. | The department modified the condition to specify that the applicant must report the category 12 throughput, amount of sewage waste processed during time limited operations and quality and quantity of treated effluent discharged to the irrigation sprayfield.<br><br>Landfill reporting condition removed. |

| Condition | Summary of applicant's comment | Department's response |
|---|---|---|
| | | Throughputs limits relative to Category thresholds remain. |
| Schedule 1 – Figure 1 | Proponent provided updated map with specific areas for the mobile concrete batch plant. | Department updated map accordingly. |
| Decision report | To updated capacity for WWTP from 500 to 550 people. | The department agreed. |
| Decision report | The department requested confirmation from the proponent regarding approvals for Land use under the Aboriginal Heritage Act 1972. The proponent stated that:<br>"*To ensure compliance with the Aboriginal Heritage Act 1972 (AHA), Fortescue conducts both archaeological and ethnographic surveys over all land prior to the commencement of ground disturbing works. These surveys will be completed prior to conducting disturbance in relation to the Nullagine Pilot Wind Farm. In line with Fortescue's obligations under the AHA, all sites recorded during heritage surveys will be avoided by the Project.*<br>*Should sites of Aboriginal heritage significance be identified in the proposed disturbance area through heritage surveys still to be completed, the proposed activity will be adjusted to avoid these sites. This risk averse approach has been discussed with the Department of Planning, Lands and Heritage (DPLH) and endorsed, as it provides a high level of protection for heritage sites*". | Noted. |