



<b>Works approval number</b>	W6743/2022/1
<b>Works approval holder</b>	Water Corporation
<b>Registered business address</b>	629 Newcastle Street LEEDERVILLE WA 6007
<b>DWER file number</b>	DER2022/000493
<b>Duration</b>	14/03/2023 to 13/03/2026
<b>Date of issue</b>	14 March 2023
<b>Premises details</b>	Broome North Water Resource Recovery Facility  Crab Creek Road BROOME WA 6725 Lot 1502 on Plan 75036 Certificate of Title Volume 2805 Folio 367

<b>Prescribed premises category description</b> (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	<b>Assessed production or design capacity</b>
Category 54: Sewage facility	4,770 cubic meters per day
Category 61: Liquid waste facility:	2,400 tonnes per annual period
<b>Assessed activities directly related to the above categories</b>	
Clearing of 7.6 hectares of native vegetation (CPS185/9)	

This works approval is granted to the works approval holder, subject to the attached conditions, on 14 March 2023, by:

**MANAGER WASTE INDUSTRIES  
REGULATORY SERVICES**

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

## Interpretation

In this works approval:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

This works approval does not provide any implied authorisation for the clearing of native vegetation in order to meet the conditions or activities specified in this works approval. The clearing of native vegetation requires a separate Native Vegetation Clearing Permit issued under the EP Act.

# Works approval conditions

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

## Construction phase

### Construction Environmental Management Plan (CEMP)

1. The works approval holder must submit a Construction Environmental Management Plan (CEMP) to the CEO a minimum 30 working days prior to construction activities commencing.
2. The CEMP specified in condition 1 should include as a minimum:
  - (a) details of the potential sources of:
    - (i) noise emissions; and
    - (ii) dust emissions;during the construction works; and
  - (b) provide mitigation and management measures to reduce and prevent the potential emissions listed under condition 2(a); and
  - (c) demonstrate how compliance with the *Environmental Protection (Noise) Regulations 1997* will be achieved.

### Infrastructure and equipment

3. The works approval holder must:
  - (a) construct and/or install the infrastructure and/or equipment;
  - (b) in accordance with the corresponding design, construction and installation requirements; and
  - (c) at the corresponding infrastructure location, as set out in Table 1.

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

	Infrastructure	Design, construction, installation and operational requirements	Infrastructure location
1.	Storage Dam No. 2	<p><b><u>Design, construction and installation requirements:</u></b></p> <ul style="list-style-type: none"><li>- Must be lined with a bituminous geomembrane (BGM) liner that is nominally 4 mm thick with a sand top surface finish and polyester anti-root under surface finish.</li><li>- The BGM liner must be designed and manufactured specifically for use as a water retaining geomembrane and have a water permeability of not more than <math>6 \times 10^{-14}</math> m/s.</li><li>- BGM liner must be installed in accordance with the manufacturers specifications.</li><li>- Must be constructed in accordance with Schedule 1, Figures 3-5.</li></ul> <p><b><u>Operational requirements:</u></b></p> <ul style="list-style-type: none"><li>- Maintain Storage Dam No.2 as specified in the design requirements above.</li></ul>	Depicted as "Location of new Storage Dam No. 2" in Schedule 1, Figure 2: Existing site layout with proposed works.

	Infrastructure	Design, construction, installation and operational requirements	Infrastructure location
2.	Inlet/Outlet works	<p><b><u>Design, construction and installation requirements:</u></b></p> <ul style="list-style-type: none"> <li>- The existing DN400 HDPE outlet from Storage Dam No.1 to have the existing blank plate removed and a new DN500 fibre reinforced plastic (FRP) inlet/outlet pipe installed to feed Storage Dam No.2.</li> <li>- A new concrete access chamber to be installed to provide access for maintenance of the isolation valves between Storage Dams No.1 and No. 2.</li> </ul> <p><b><u>Operational requirements:</u></b></p> <ul style="list-style-type: none"> <li>- Maintain the inlet/outlet works as specified in the design requirements above.</li> </ul>	As depicted in Schedule 1, Figure 3: Storage Dam No. 2 plan
3.	Decommissioning of groundwater monitoring bores within the construction footprint	<ul style="list-style-type: none"> <li>- Groundwater monitoring bores within the construction footprint must be decommissioned in accordance with <i>Minimum Construction Requirements for Water Bores in Australia, Fourth Edition (National Uniform Drillers Licensing Committee, 2020)</i></li> </ul>	As depicted in Schedule 1, Figure 6: Map of groundwater monitoring locations.
4.	Replacement of groundwater monitoring bores within the construction footprint	<p><b><u>Well design and construction:</u></b></p> <ul style="list-style-type: none"> <li>- For those groundwater monitoring bores within the construction footprint, replacement groundwater monitoring bores must be located down gradient of Storage Dam No.2.</li> <li>- Designed and constructed in accordance with <i>Minimum Construction Requirements for Water Bores in Australia, Fourth Edition (National Uniform Drillers Licensing Committee, 2020)</i></li> <li>- Wells must be constructed with a screened interval across the water table. Screen design should consider the likely fluctuation in the water table and the well screen should be located such that at least part of the screen remains within the saturated zone throughout the year. Well screens should be kept as short as possible to avoid potential dilution effects<sup>1</sup>.</li> <li>- Must be constructed, developed (purged), and determined to be operational prior to the commencement of time-limited operations under condition 7.</li> </ul> <p><b><u>Logging of borehole:</u></b></p> <ul style="list-style-type: none"> <li>- Soil samples must be collected and logged during the installation of the monitoring wells.</li> <li>- A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726.</li> <li>- Any observations of staining / odours or other indications of contamination must be included in the bore log.</li> </ul> <p><b><u>Well construction log:</u></b></p> <ul style="list-style-type: none"> <li>- Well construction details must be documented within a well construction log to demonstrate compliance with <i>Minimum Construction Requirements for Water Bores in Australia, Fourth Edition (National Uniform Drillers Licensing Committee, 2020)</i>. The construction logs shall include elevations of the top of casing position to be used as the</li> </ul>	As depicted in Schedule 1, Figure 6: Map of groundwater monitoring locations.

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

	Infrastructure	Design, construction, installation and operational requirements	Infrastructure location
		reference point for water-level measurements, and the elevations of the ground surface protective installations.	
		<u>Well development:</u> - All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.	
		<u>Installation survey:</u> - The vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor.	
		<u>Well network map:</u> - A well location map (using aerial image overlay) must be prepared and include the location of all monitoring wells in the monitoring network and their respective identification numbers.	

## Compliance reporting

4. The works approval holder must within 60 calendar days of the completion of all items of infrastructure or equipment required by condition 3 being constructed and/or installed:
  - (a) undertake an audit of their compliance with the requirements of condition 3; and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
5. The Environmental Compliance Report required by condition 4, must include as a minimum the following:
  - (a) certification by a suitably qualified engineer that the items of infrastructure or component(s) thereof, as specified in Condition 3, have been constructed in accordance with the relevant requirements specified in condition 3;
  - (b) a Construction Quality Assurance Report, completed by an independent consultant, for the BGM liner;
  - (c) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 3;
  - (d) documentation as specified in Row 4, Table 1 in relation to the installation of replacement groundwater monitoring bores; and
  - (e) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

## Time limited operations phase

### Commencement and duration

6. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 3 where the Environmental Compliance Report for that item of infrastructure as required by conditions 4 and 5 has been submitted by the works approval holder.
7. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 8 (as applicable):
  - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 6 for that item of infrastructure; or
  - (b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 7(a).

### Infrastructure and equipment

8. During time limited operations, the works approval holder must ensure that the site infrastructure and equipment listed in Table 1 (Condition 3) and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirements set out in Table 1.

### Compliance reporting

9. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 60 calendar days before the expiration date of the works approval, whichever is the sooner.
10. The works approval holder must ensure the report required by condition 9 includes the following:
  - (a) a summary of the time limited operations, including timeframes and volume of wastewater processed;
  - (b) a summary of the environmental performance of all infrastructure as constructed or installed;
  - (c) a review of performance and compliance against the conditions of the works approval; and
  - (d) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

## Records and reporting (general)

- 11.** The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

  - (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- 12.** The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

  - (a) the works conducted in accordance with condition 3;
  - (b) any maintenance of infrastructure that is performed in the course of complying with condition 8; and
  - (c) complaints received under condition 11.
- 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 works approval holder for the duration of the works approval; and
  - (d) be available to be produced to an inspector or the CEO as required.

## Definitions

In this works approval, the terms in Table 3 have the meanings defined.

**Table 3: Definitions**

Term	Definition
averaging period	means the time over which a limit is measured or a monitoring result is obtained.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
premises	the premises to which this works approval applies, as specified at the front of this works approval and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
suitably qualified engineer	means a person who: (a) holds a Bachelor of Engineering recognised by the Institute of Engineers; and (b) has a minimum of five years of experience working in a supervisory area of civil or structural engineering; and (c) is employed by an independent third-party external to the works approval holder's business; or is otherwise approved in writing by the CEO to act in this capacity



Term	Definition
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

---

**END OF CONDITIONS**

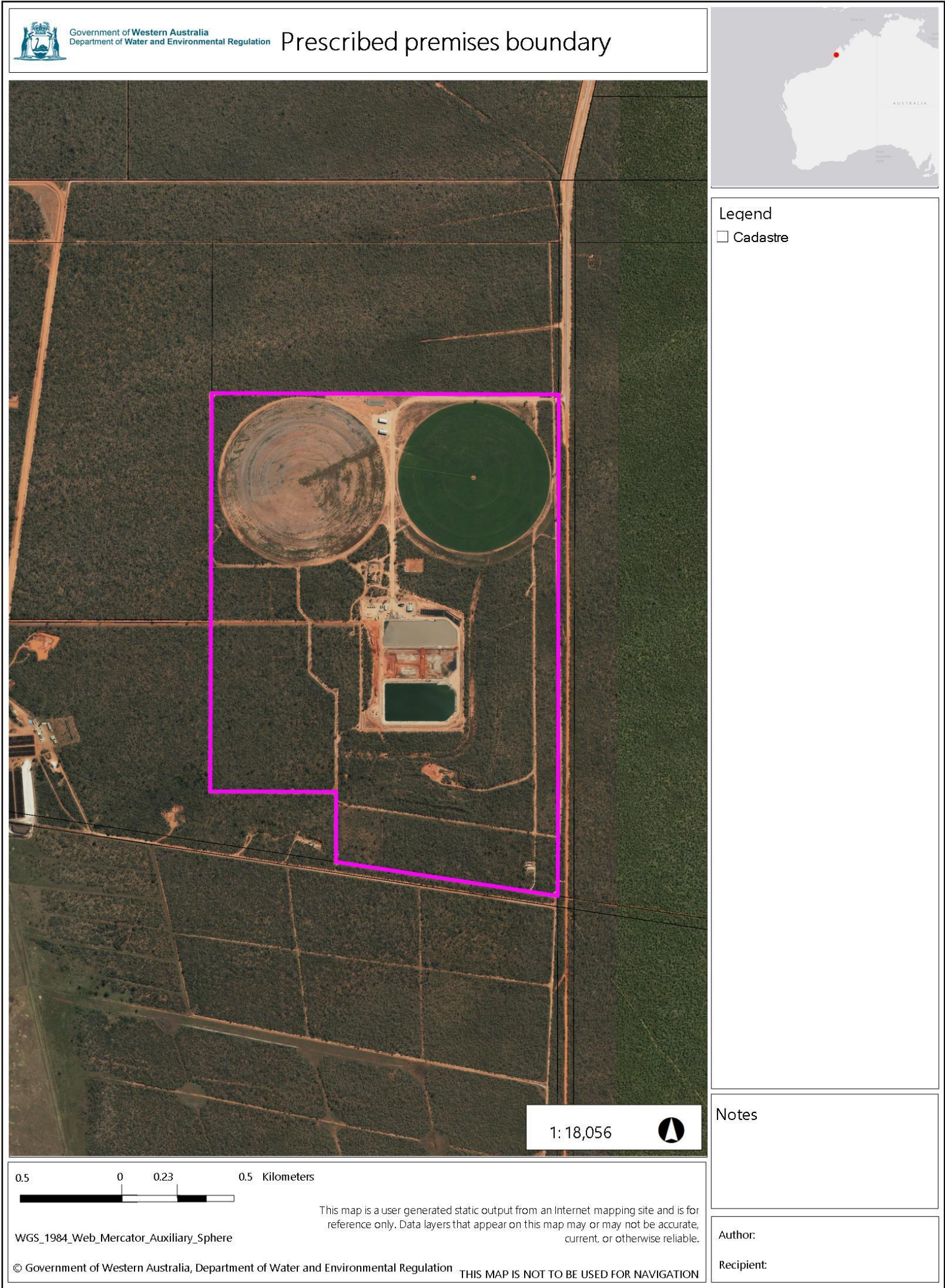


# Schedule 1: Maps

## Premises map

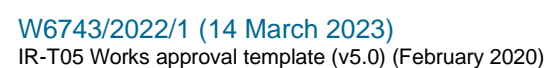
The boundary of the prescribed premises is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the prescribed premises





PRELIMINARY - NOT FOR CONSTRUCTION





**PRELIMINARY - NOT FOR CONSTRUCTION**

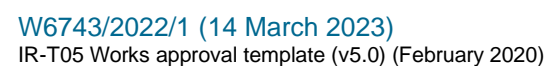


Figure 4: Storage Dam No. 2 sections

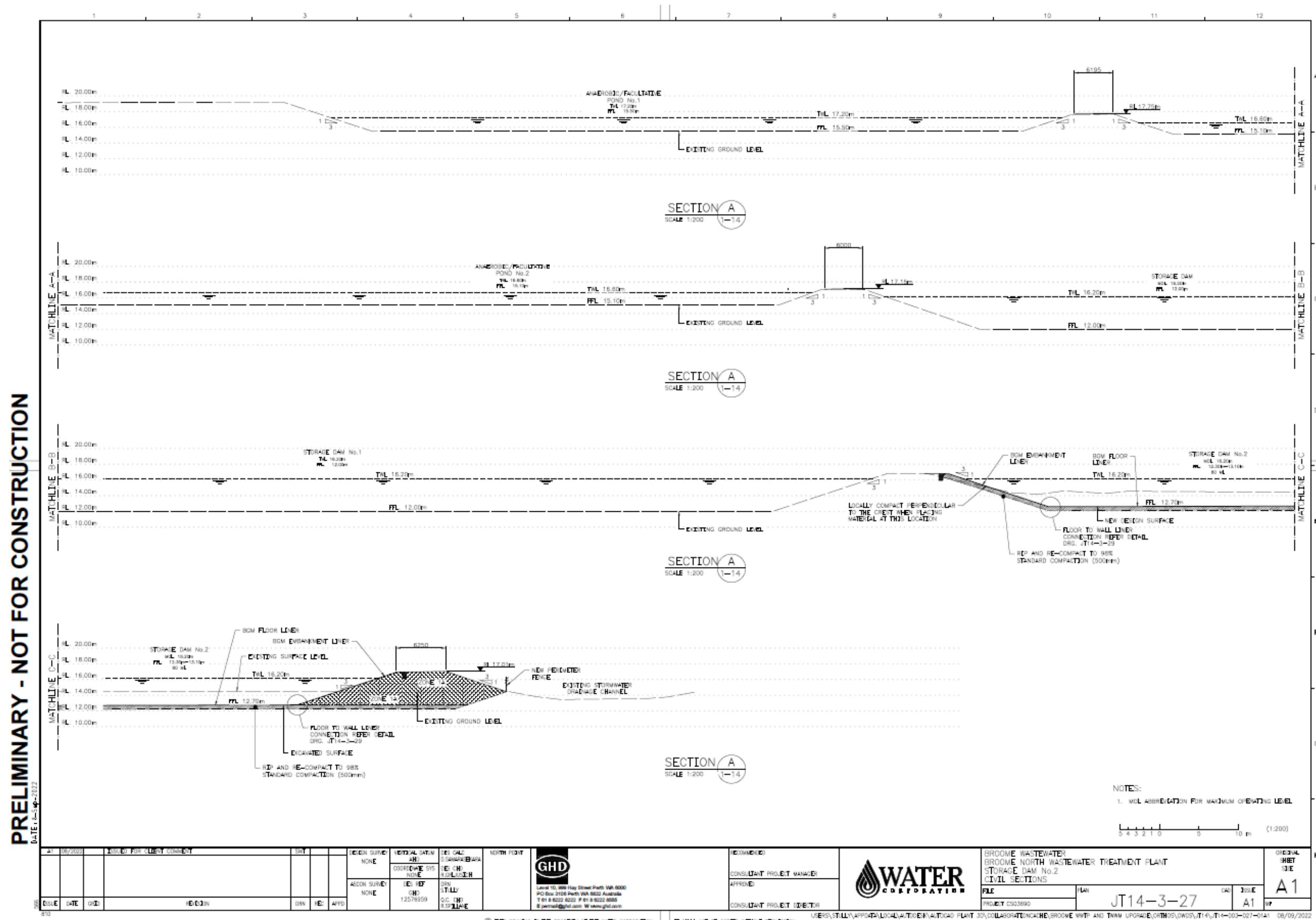




Figure 5: Storage Dam No. 2 details

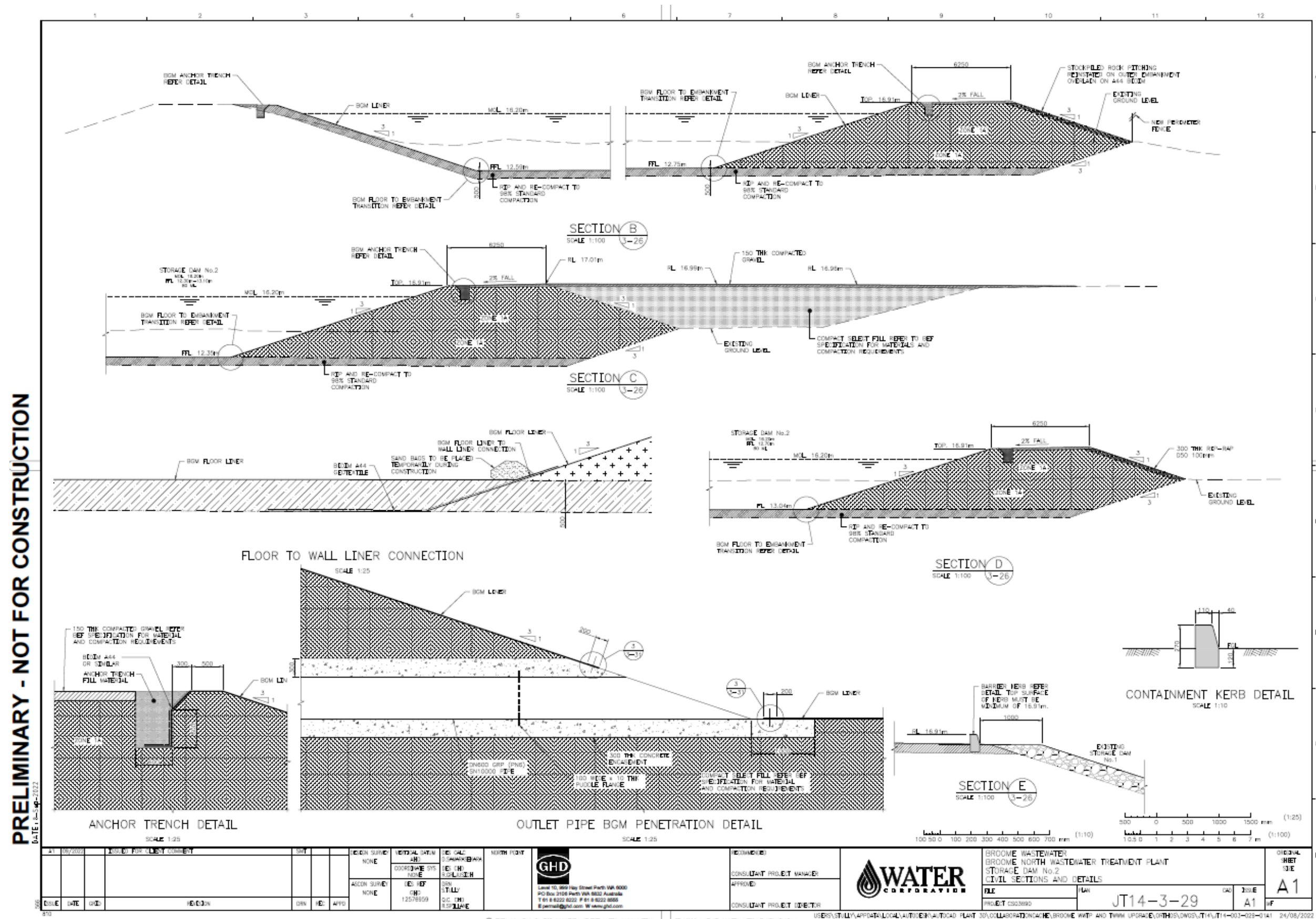




Figure 6: Map of groundwater monitoring locations



Figure 3