



<b>Works approval number</b>	W6459/2020/1
<b>Works approval holder</b>	Water Corporation
<b>ACN</b>	28 003 434 917
<b>Registered business address</b>	629 Newcastle Street LEEDERVILLE 6007 WA
<b>DWER file number</b>	DER2020/000433
<b>Duration</b>	02/09/2021 to 02/09/2026
<b>Date of issue</b>	2 September 2021
<b>Premises details</b>	Canning Beach Road Pumping Station Reserve 41516 60 Canning Beach Road, Applecross 6153 WA  Legal description - Lot 11312 on Deposited Plan 189373 Certificate of Title Volume LR3000 Folio 695 As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed design capacity
Category 85A: Sewage pumping station	N/A

This works approval is granted to the works approval holder, subject to the attached conditions, on 2 September 2021, by:

Abbie Crawford  
A/MANAGER, WASTE INDUSTRIES  
REGULATORY SERVICES

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

## Works approval history

Date	Reference number	Summary of changes
02/09/2021	W6459/2020/1	Works approval granted.

## 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.

# Works approval conditions

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

## Construction phase

### Management plans

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, information on the procedures and controls proposed to be employed during construction phase for:
  - (a) Noise and dust emissions;
  - (b) ASS / PASS management; and
  - (c) Dewatering management.
3. The works approval holder must submit to the CEO an Emergency Discharge Response Procedure for the management, response and mitigation of impacts from a possible emergency discharge from the sewage pumping station prior to commissioning the items of infrastructure as listed in Condition 5, Table 1.
4. The Emergency Discharge Response Procedure required by condition 3 must:
  - (a) Set out how the minimum obligations of a wastewater service provider will be met consistent with the Wastewater overflow response procedures specific to the scope of operations and environmental siting of the premises
  - (b) Detail sequential response procedures for the possible failure of power supply, pumps, pumping station bypass capacity and the emergency storage tank capacity being exceeded;
  - (c) Detail procedures for each of the following matters to be implemented, with regards to the public open space swale, adjacent lands and the Canning River in the event of a discharge:
    - (i) Management responses and actions;
    - (ii) Timeframes, methods and locations for all sampling of impacted soils, sediments, groundwater and surface water that may occur; and
    - (iii) Possible remediation works to reduce ongoing impacts and ensure that public amenity and environmental values are protected and maintained.

### Infrastructure and equipment

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

**Table 1: Design and construction / installation requirements**

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Pumps upgrades	<p>The design is in accordance with the Water Corporation design standard <i>DS 51 – The Design and Construction of Wastewater Pumping Stations and Pressure Mains</i>.</p> <ol style="list-style-type: none"> <li>1) The pump station upgrade is to include a total of two pumps similar to a <i>Flygt NT 3171 SH3 dry mount submersible wastewater pump</i> with one for duty and one for standby as contingency.</li> <li>2) Seven alarms are to be in place during the pump station operation to ensure operators are aware of suspected failures or issues with the pump station prior to flowing into the emergency storage system.</li> <li>3) Hydrostatic testing of the sewage pump station must be undertaken for a minimum 24 hours and any defects resolved.</li> </ol>	As defined in Schedule 1
2.	Pipework	<ol style="list-style-type: none"> <li>1) Pipework upgrades within the existing pump station.</li> <li>2) The design is in accordance with the Water Corporation design standard <i>DS 65 – Pipe Fittings Standard Drawings</i>.</li> </ol>	As defined in Schedule 1
3.	Emergency Storage	<p>The emergency storage pipework upgraded as follows:</p> <ol style="list-style-type: none"> <li>1) an additional 111 m<sup>3</sup> overflow storage capacity and total emergency overflow storage capacity of 227 m<sup>3</sup>;</li> <li>2) Upgraded storage is to include an additional 18 concrete pipes to be installed adjacent to the existing emergency storage underground within the road reserve;</li> <li>3) The emergency storage pipes to be reinforced concrete pipes, 95 mm thick, constructed to achieve a very low permeability of 10<sup>-13</sup> m/s; and</li> <li>4) Odour filters for the upgraded emergency storage to be installed.</li> </ol>	As defined in Schedule 1
4.	Electrical upgrades	<ol style="list-style-type: none"> <li>1) Electrical upgrades to be undertaken in accordance with the following Water Corporation design standards: <ul style="list-style-type: none"> <li>• <i>DS20 – Design Process for Electrical Works</i>;</li> <li>• <i>DS22 – Ancillary Plant and Minor Pump Stations</i>; and</li> <li>• <i>DS29 – Arc Flash Hazard Assessment of Switchgear</i></li> </ul> </li> </ol>	As defined in Schedule 1

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		<p><i>Assemblies.</i></p> <p>2) Switchboards designed in accordance with Water Corporation design standard <i>DS26-09 Design Process for Electrical Works and Drawings under the MN01 Small Pump Station Standard Electrical Design</i>.</p> <p>3) The existing underground switchboard and associated wiring to be completely decommissioned.</p> <p>4) The new switchboards to be installed on a platform height of RL2.2 m (or 1.1m above ground level) to stay above the 1-in-100 year ARI flood plain level.</p>	

### Acid sulfate soils management

6. The works approval holder must ensure stockpiling, and treatment of ASS or PASS soil does not occur within the Premises.
7. The works approval holder must ensure ASS or PASS is disposed of to a licensed landfill facility, the works approval holder must provide receipts or other acceptance records from the relevant disposal facility, including details of the total amount of ASS or PASS material taken to the chosen facility, within the Environmental Compliance Report required under Condition 12.
8. The works approval holder must ensure that treated ASS or PASS is only re-used onsite after validation sampling confirms that neutralisation has been achieved.

### Dewatering management

9. The works approval holder must ensure that, where required, dewatering effluent is treated as required to meet a pH range between 6.0 and 8.5 and with a total acidity level not exceeding 40 mg/L as CaCO<sub>3</sub>.
10. The works approval holder must ensure that dewatering effluent is only discharged directly to the sewer when effluent monitoring demonstrates that the effluent meets the parameters specified in Condition 9.

### Groundwater monitoring requirements

11. The works approval holder must undertake groundwater monitoring:
  - (a) For the parameters specified in Column 1 of Table 2;
  - (b) In the units specified in Column 2 of Table 2;
  - (c) At the locations specified in Column 3 of Table 2;
  - (d) At the frequency specified in Column 4 of Table 2; and
  - (e) Using the methods specified in Column 5 and Column 6 of Table 2.

**Table 2: Monitoring of ambient groundwater**

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Parameter	Units	Location	Frequency	Sample	Method
Standing water level	mTOC mbgl	BH01 (existing bore or replacement bore in event BH01 is removed during construction activities) as depicted on the <i>Site map</i> in Schedule 1	Immediately prior to commencement of dewatering	In-field measurement	All water samples are collected and preserved in accordance with AS/NZS 5667.1 and all groundwater sampling is conducted in accordance with AS/NZS 5667.11
Electrical conductivity	mg/L		Every second day during dewatering operations and continued until such a time that the groundwater levels have returned to levels identified prior to commencement of dewatering activities		
pH	N/A				
Dissolved oxygen	mg/L				
Total alkalinity					
Total titratable acidity					
Total dissolved solids (TDS)					

### Compliance reporting

12. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 5 being constructed and / or installed:
  - (a) Undertake an audit of their compliance with the requirements of condition 5; and
  - (b) Prepare and submit to the CEO an Environmental Compliance Report on that compliance.
13. The Environmental Compliance Report required by condition 12, must include as a minimum the following:
  - (a) Certification by a Qualified, Competent Civil or Structural Engineer that the items of infrastructure or component(s) thereof, as specified in condition 5, have been constructed in accordance with the relevant requirements specified in condition 5;
  - (b) As constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 5;
  - (c) A summary of the ASS / PASS dewatering management measures undertaken at the Premises during construction;
  - (d) A summary of the groundwater monitoring data obtained;
  - (e) A summary of the monitoring of dewatering effluent data obtained;
  - (f) A summary of the environmental commissioning activities undertaken, including timeframes and amount of wastewater processed;
  - (g) Where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures; and

- (h) Be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

## Records and reporting (general)

- 14.** 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.
- 15.** 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 5;
  - (b) Any maintenance of infrastructure that is performed in the course of complying with condition 5;
  - (c) Monitoring programmes undertaken in accordance with condition 11; and
  - (d) Complaints received under condition 14.
- 16.** The books specified under condition 15 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 be available to be produced to an inspector or the CEO as required

## Definitions

In this works approval, the terms in Table 4 have the meanings defined.

**Table 3: Definitions**

Term	Definition
Acid sulfate soils	includes both sulfidic soil materials as potential acid sulfate soils and sulfuric soil materials as actual acid sulfate soils.
annual period	a 12 month period commencing from 1 July until 30 June of the immediately following year.
ASS	means acid sulfate soils
books	has the same meaning given to that term under the EP Act.
CaCO <sub>3</sub>	means Calcium carbonate
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 commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
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).

Term	Definition
m <sup>3</sup>	cubic metres
mbgl	metres below ground level
Neutralisation	<p>Is the process of soil treatment meeting the following performance criteria:</p> <ul style="list-style-type: none"> <li>a) the neutralising capacity of the treated soil must exceed the existing plus potential acidity of the soil (e.g. pH<sub>fox</sub> must be &gt;5);</li> <li>b) the neutralising material has been thoroughly mixed with the soil;</li> <li>c) soil pH must be in the range of 6.0 to 8.5; and</li> <li>d) excess neutralising agent must remain within the soil until all acid generation reactions are complete and the soil has no further capacity to generate acidity.</li> </ul>
PASS	means potential acid sulphate soils
Potential acid sulfate soils	are soils or sediments which contain iron sulfides and/or other sulfidic minerals that have not been oxidised. The field pH of these soils in their undisturbed state is more than pH 4 and is commonly neutral to alkaline (pH 7 to pH 9). These soils or sediments are invariably saturated with water in their natural state. The waterlogged layer may be peat, clay, loam, silt, or sand and is usually dark grey and soft but may also be dark brown, or medium to pale grey to white.
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.
Qualified, Competent Civil or Structural Engineer	<p>means a person who:</p> <ul style="list-style-type: none"> <li>a) holds a Bachelors degree recognised by Engineers Australia; and</li> <li>b) has a minimum of five years experience working in a supervisory role in civil or structural engineering; and</li> <li>c) is employed by an independent third party external to the Work's Approval Holders business;</li> </ul> <p>or is otherwise approved in writing by the CEO to act in this capacity.</p>
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.

Term	Definition
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.

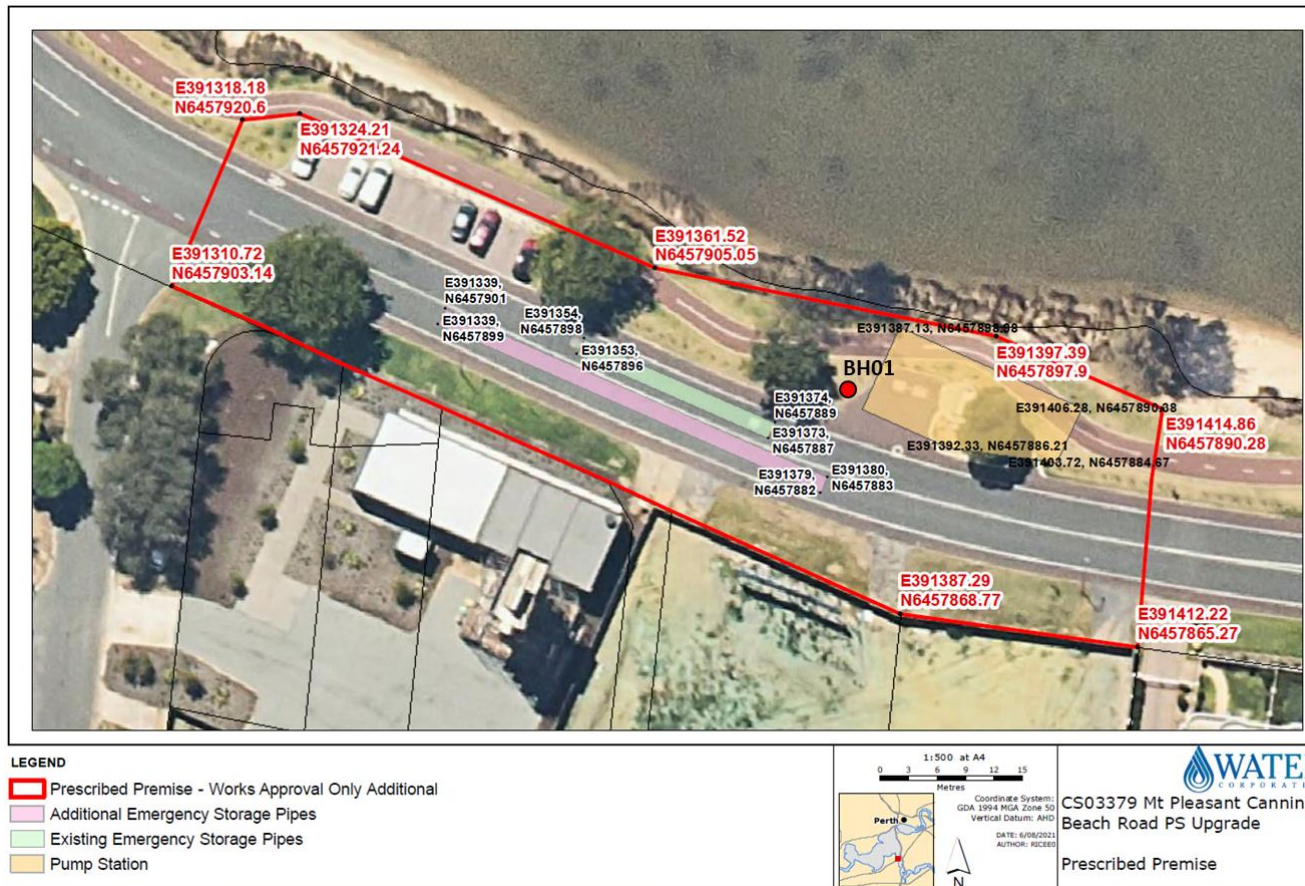
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**END OF CONDITIONS**

# Schedule 1: Maps

## Premises map

The boundary of the prescribed premises is shown in the map below (**Error! Reference source not found.**).

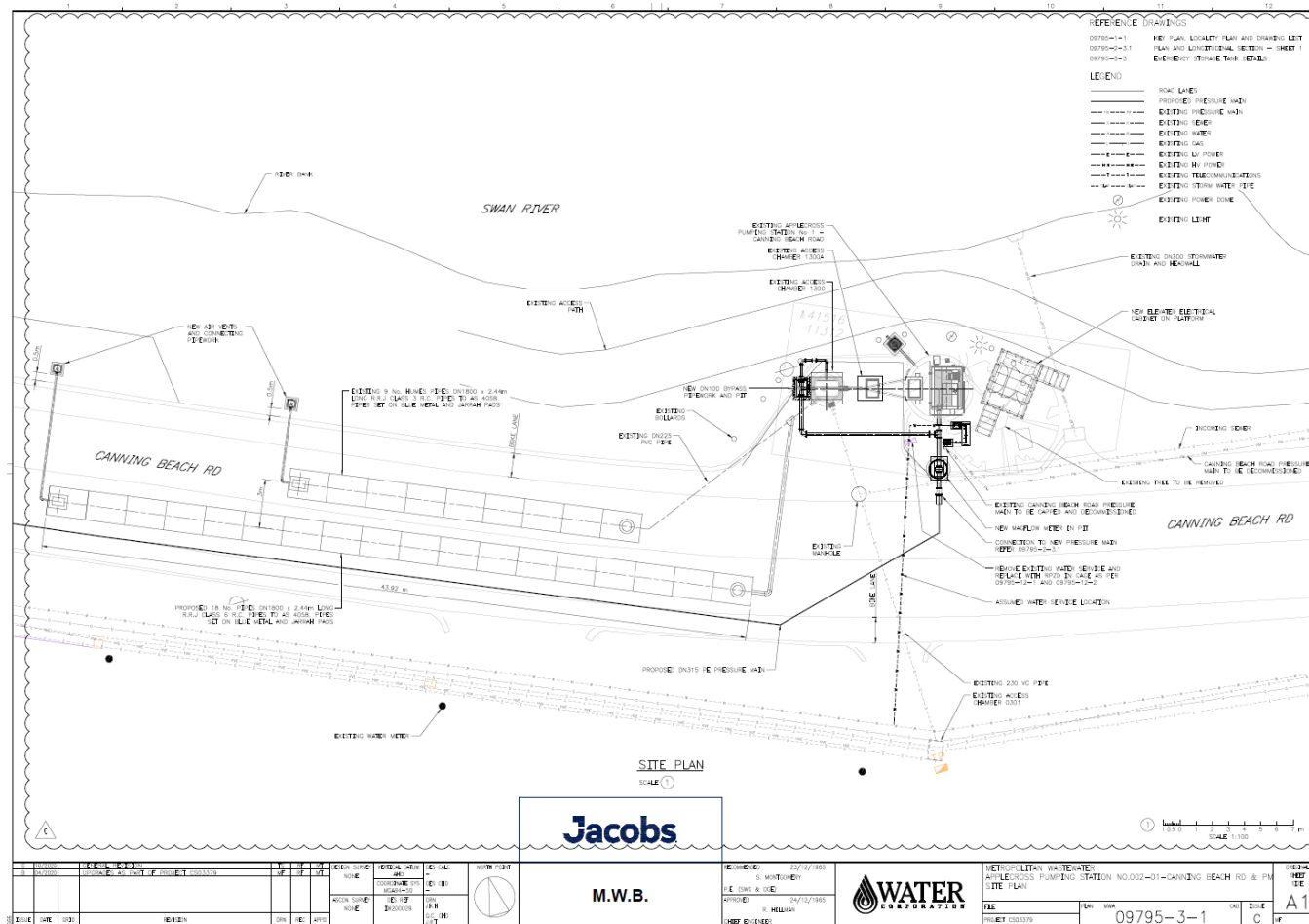


**Figure 1: Map of the boundary of the prescribed premises**

Works Approval: W6459/2020/1 (issued 02/09/2021)  
IR-T05 Works approval template (v5.0) (February 2020)

## Site plan

The site plan of the prescribed premises is shown in the map below (Figure 2)**Error! Reference source not found.**



### Figure 2: Site plan

Works Approval: W6459/2020/1 (issued 02/09/2021)  
IR-T05 Works approval template (v5.0) (February 2020)

## Pump station and pressure main upgrades

The pump station upgrades of the prescribed premises and pressure main upgrades are shown below (Figure 3)

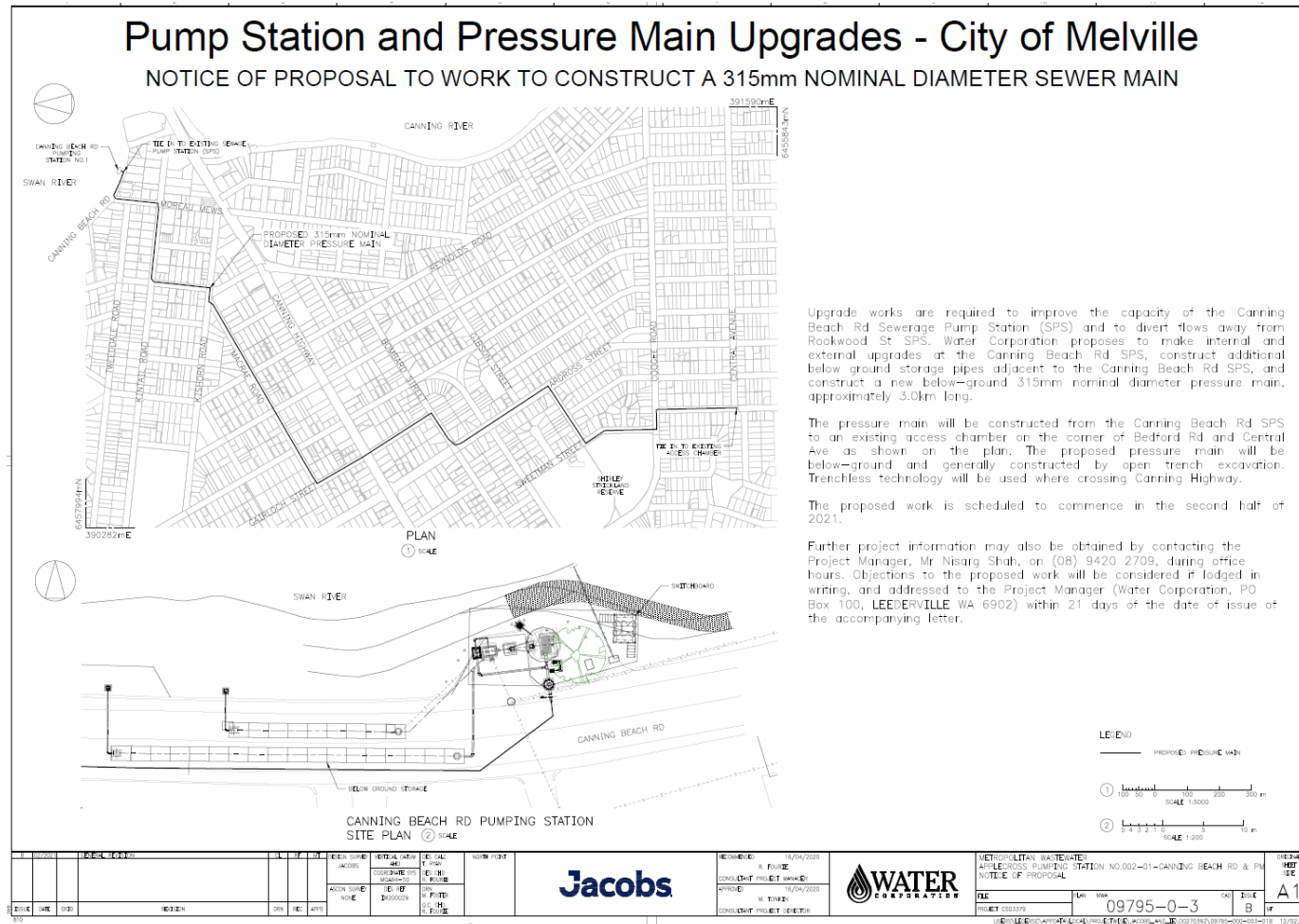


Figure 3: Pump station and pressure main upgrades

Works Approval: W6459/2020/1 (issued 02/09/2021)  
IR-T05 Works approval template (v5.0) (February 2020)

## Schedule 2: Premises boundary

The premises boundary is defined by the coordinates in Table 5.

**Table 4: Premises boundary coordinates**

Easting	Northing
391318.18	6457920.6
391318.18	6457921.24
391361.52	6457905.05
391397.39	6457897.9
391515.86	6457890.28
391412.22	6457865.27
391387.29	6457868.77
391310.72	6457903.14

Note: GDA 2020 Zone 50