



**CHIEF EXECUTIVE APPROVAL No 08/2006**  
*Plumbing & Drainage Act 2002, Part 5, Division 1, Section 93*

**Approval**

1. The **Bushwater S Home Treatment System**, (the “**system**”) described in the Specification and Drawings in the attached schedule and manufactured by **Bushwater Pty Ltd** (ABN: 88 098 336 602) (the “**manufacturer**”) has been assessed in accordance with the Queensland Plumbing and Wastewater Code dated 1 March 2006.
2. Approval is granted for the system subject to compliance by the facility builder with the requirements of the *Plumbing & Drainage Act 2002*, Part 5, Division 1, Section 91 and the conditions of approval below.
3. This approval, the conditions of approval and the schedule comprise the entire chief executive approval document.
4. Any modification by the facility builder to the design, drawings or specifications in the chief executive approval for the system must be approved by the chief executive.
5. The approval does not affect the operation of the *Trade Practices Act 1974*, the *Fair Trading Act 1989* and the *Sale of Goods Act 1896* or any other law.

Ron De Veer  
**A/Director**  
**Building Codes Queensland**

Date Approved: 19 June 2006



### Conditions of Approval

1. The manufacture, installation, operation, service and maintenance of the system must be in conformity with the conditions of the Chief Executive approval.
2. A system, which is an example of the approved system, may only be used on premises that generate, per day-
  - (a) a maximum hydraulic loading of 1800 litres; and
  - (b) a maximum organic loading of 700 grams BOD<sub>5</sub>.
3. An approved system, when installed on premises, must continue producing effluent that meets the following standard-
  - (a) Biochemical Oxygen Demand – less than or equal to 10 mg/L; and
  - (b) Total Suspended Solids – less than or equal to 20 mg/L; and
  - (c) Thermotolerant Coliforms – not exceeding 10 organisms/100mL; and
  - (d) Total Nitrogen – less than or equal to 15 mg/L; and
  - (e) Total Phosphorus – less than or equal to 5 mg/L.
4. Each system must be supplied with-
  - a copy of the chief executive approval document; and
  - details of the system; and
  - instructions for authorised persons for its installation; and
  - a copy of the owner's manual (to be given to the owner at the time of installation); and
  - detailed instructions for authorised serviced personnel for its operation and maintenance.
5. Each *Bushwater S Home Treatment System* at three (3) monthly intervals in accordance with details in the system's Service and Maintenance Instructions Manual.
6. The approval does not extend, apply to, or include the land application system used in conjunction with an approved system when installed on premises.
7. This approval may only be assigned with the prior written consent of the chief executive.

Ron De Veer  
**A/Director**  
**Building Codes Queensland**

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- 8 The chief executive, by written notice, may cancel this approval if the manufacturer fails-
- (a) to comply with one or more approval conditions; or
  - (b) within 30 days, to remedy a breach, written notice for which has been given by the chief executive to the manufacturer.
- 9 This approval expires on 30 June 2011 unless cancelled earlier or in accordance with paragraph 8 above.

**Ron De Veer**  
**A/Director**  
**Building Codes Queensland**

Date Approved: 19 June 2006

#### **SCHEDULE**

**Attachment 1**  
**Attachment 2**

Specifications  
Drawings



**Queensland Government**

Department of Local Government, Planning,  
Sport and Recreation

**CHIEF EXECUTIVE APPROVAL No 08/2006**

*Plumbing & Drainage Act 2002, Part 5, Division 1, Section 93*

**SCHEDULE**

**Attachment 1**

Bushwater Pty Ltd - System Specifications for the *Bushwater S Home Treatment System*:

1. Bushwater S Home Treatment System – Technical Specifications for the Bushwater S.

A handwritten signature in black ink, appearing to read 'Ron De Veer'.

Ron De Veer  
A/Director  
Building Codes Queensland

Date Approved: 19 June 2006

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ABN 61 331 950 314

## Technical Specifications for the Bushwater S

### Dimensions of treatment plant outer tank are:

Construction	Rotomoulded polyethylene
Diameter OD	2040 mm
Side wall height	2345 mm
Height to apex in lid	2865 mm
Thickness of wall	12 mm to 15 mm

Dept of Local Govt, Planning, Sport and Recreation, Queensland
<b>Chief Executive Approval</b>
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### Main tank aerator:

Hi-Blow or equivalent, Linear motor aerator, Model 200H, air flow 200 litres per minute at 27 kPa, or equivalent, air blower nominal selection. Power consumption 220 watts, continuous rated.  
Noise level < 10 db at 2 metre.

### Irrigation tank: (disinfection/irrigation)

Polyethylene, wall thickness approx. 10 to 15mm, design life greater than 20 years.  
Pipe work design life greater than 15 years.  
Located inside main tank.

All wetted pipe work is either PVC or polyethylene, designed for aqueous transport.

All PVC joints below water are solvent weld.

PVC fittings are light weight, have good chemical resistance, impervious to bacterial and fungal attack and not subject to electrolytic corrosion.

Air Line distribution is polyethylene.

Air line life greater than 15 years.

Metered air line is polyethylene manufactured for long term exposure to the environment in a wet condition.

Off the shelf plumbing items have a manufacturers guarantee concerning lifetime and use.

### Disinfection:

#### *A. Disinfection by use of chlorine producing tablets*

Tablet feeder body expected life minimum 3 years.

Tablet feeder body – chlorine resistant PVC.

Chlorine tablets – slow dissolving, di iso cyanurate based chlorine producing.

It should be noted that the chlorine tablets contribute a total nitrogen component to the treated water and as such allowance should be made when assessing plant performance.

#### *B. Disinfection by ozone generator or ultraviolet.*

Used when disinfection is required and where use of chemicals is not desired.

Equipment sized to achieve accreditation disinfection levels.

### Pumps:

There is one (1) pump used in normal plant operation:

Treated Effluent Pump, Submersible pump 240 Volt AC with integral float switch.

Submersible Pumps expected life 3 years minimum.

### Alarms:

The alarm system is a low voltage DC system of audible and visible alarms to comply with paragraph 11.9.12 – Alarm System, On site sewage code November 2003, Department of Local Government and Planning, Queensland.

### Site requirement options are:

Sprinklers

Subsurface drippers



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**SCHEDULE**

**Attachment 2**

Bushwater Pty Ltd - System Drawings for the *Bushwater S Home Treatment System*:

1. Drawing 1 of 3 – Bushwater S: *"Treatment Tank Details – Plan and Section"*; and
2. Drawing 2 of 3 – Bushwater S: *"Treatment Tank Details – Plan inside Tank"*; and
3. Drawing 3 of 3 – Bushwater S: *"Treatment Tank Flow Schematic"*.

Ron De Veer  
**A/Director**  
**Building Codes Queensland**

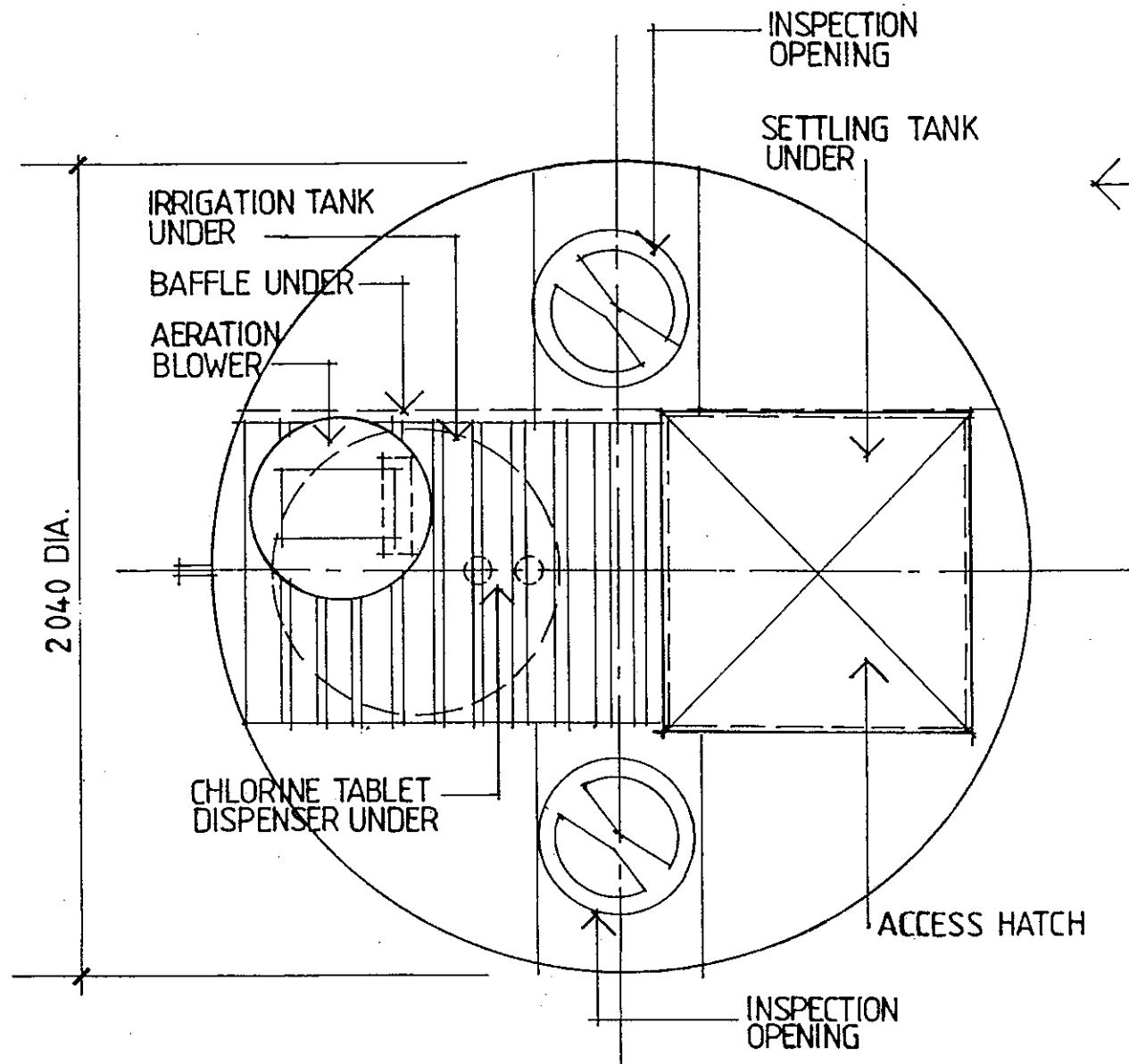
Date Approved: 19 June 2006

# BUSHWATER S

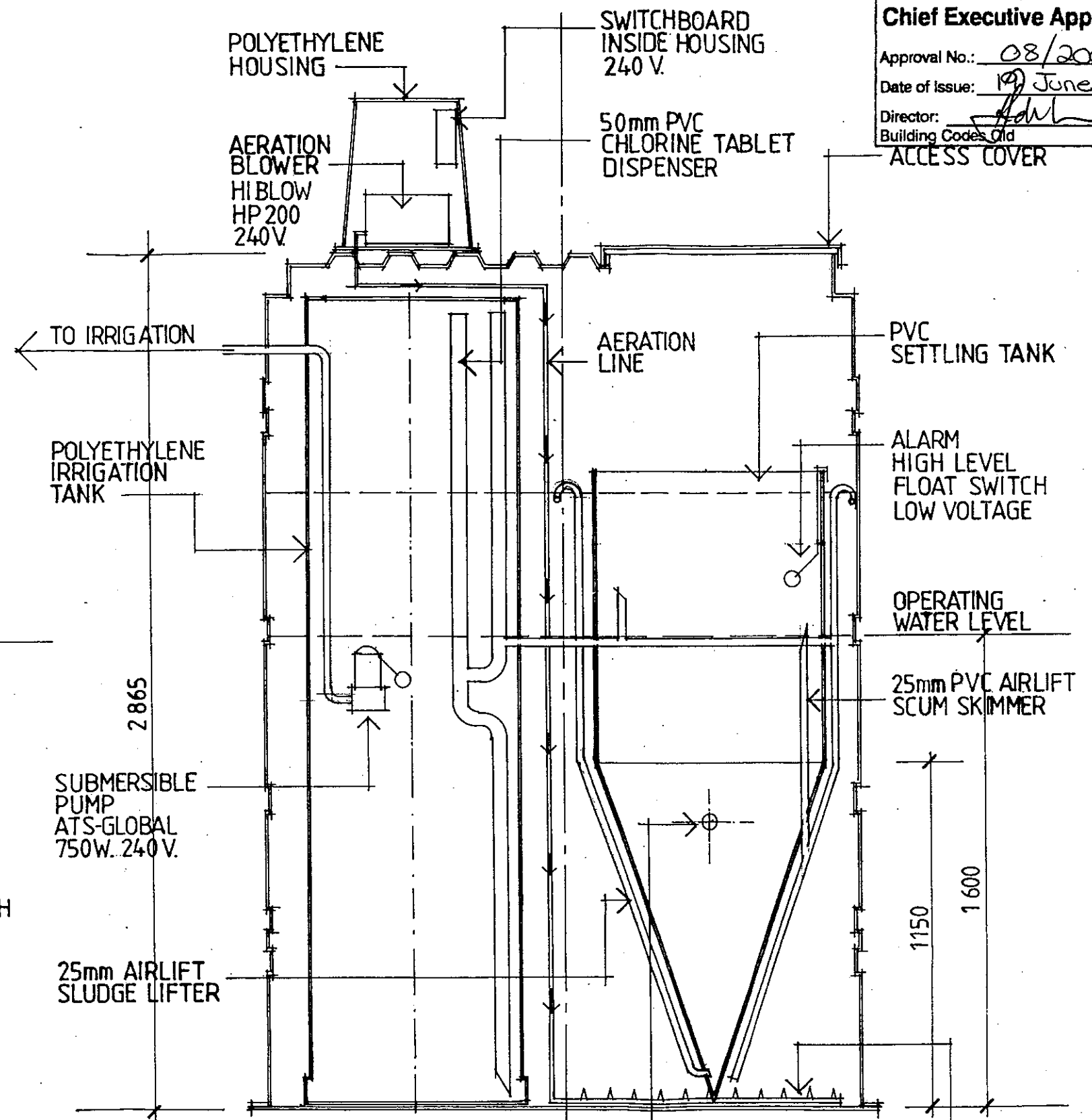
BUSHWATER HOLDINGS PTY. LTD.

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PLAN VIEW



SECTION VIEW

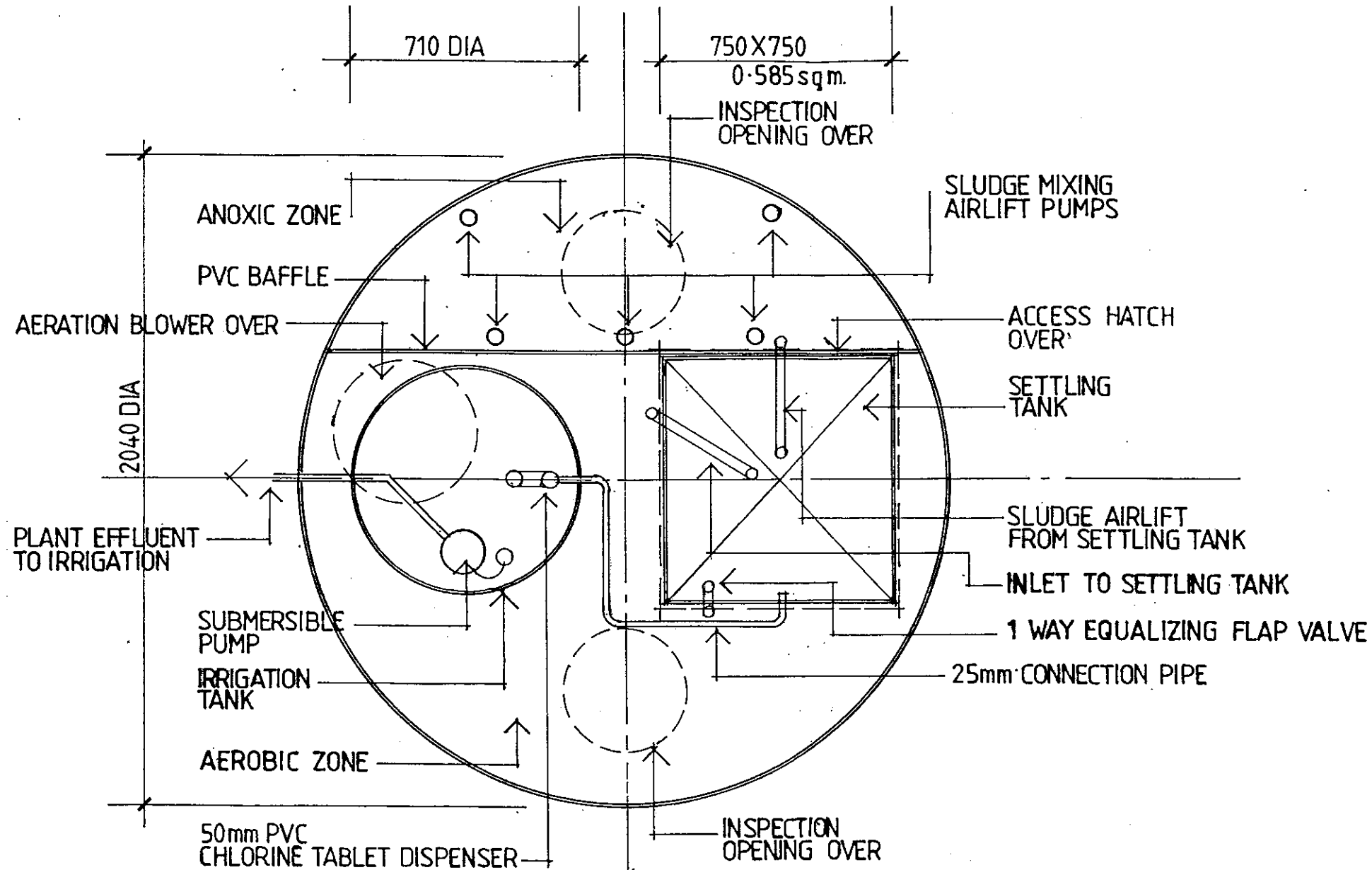
POLYETHYLENE AERATION OUTLETS ON FLOOR OF TANK  
 INLET TO SETTLING TANK CLARIFIER

# BUSHWATER S

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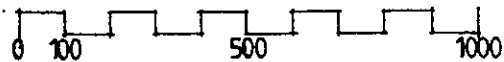


SECTION PLAN VIEW

## TREATMENT TANK DETAILS

PLAN INSIDE TANK

DRAWING 2 OF 3 SCALE AS SHOWN



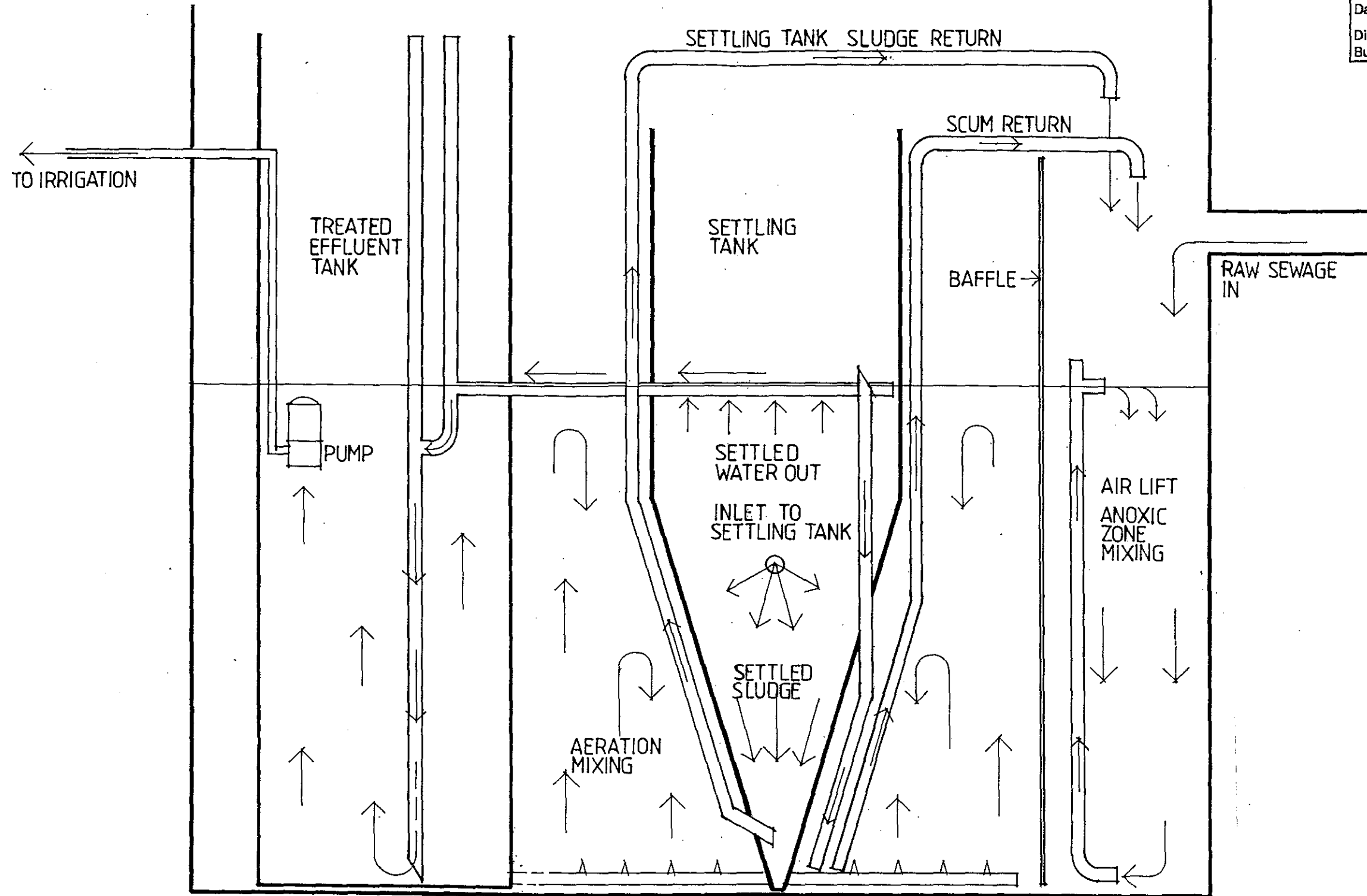


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TREATMENT TANK FLOW SCHEMATIC  
DRAWING 3 OF 3 NOT TO SCALE