



Health

Certificate of Accreditation

Sewage Management Facility

Aerated Wastewater Treatment System

This Certificate of Accreditation is issued by the Secretary of the NSW Ministry of Health pursuant to Clause 41(1) of the Local Government (General) Regulation 2005.

System: Alpha Treat DP10

Manufacturer: Eco Water (QLD) Pty Ltd

Of: 44 Telford St, Virginia, QLD, 4014

The Alpha Treat DP10 AWTS as described in Schedule 1 has been accredited as a sewage management facility for use in single domestic premises in NSW. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2.

*Director, Environmental Health
for Secretary (delegation PH335)*

Issued: 28 November 2016

Certificate No: AWTS 004

Expires: 31 December 2020

NSW Ministry of Health

Accreditation Schedules Alpha Treat DP10 AWTS

Schedule 1

The Alpha Treat DP10 is an aerated wastewater treatment system (AWTS) designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The system has a total fluid capacity of 6400Ltrs which is made up of two RELN 3200L polymer septic tank casings.

The primary tank provides an anaerobic sedimentation chamber of 3200L capacity and contains a primary effluent filter to reduce solid discharge to the secondary aeration tank. The primary tank is supplied with a baffle which divides the primary tank into two chambers at the ratio of 2:1.

The secondary tank utilises the activated sludge aeration process and comprises:

- control unit with fault warning systems for aeration and discharge pumps with integrated tank mounted warning lamp and dwelling located mutable warning panel
- an operational level of fluid in the system of 1385mm
- an emergency surge capacity of 1000Ltrs is designed into the system
- aeration occurs in an aeration chamber of 2549Ltrs which has four aeration arms and two media growth packs which are supplied with air from a 80L/min Thomas (or similar) aeration pump
- two sequential clarification chambers of 217Ltrs each settle out suspended solids
- suspended solids are returned to the primary chamber by a continuous sludge return system from each clarification chamber
- floating solids are continuously skimmed off in the first clarification chamber and returned to the aeration chamber
- flow from the second clarification chamber passes through a tertiary filtration unit for final particulate of effluent prior to entering the disinfection chamber
- a chlorine contact disinfection/pump-out chamber volume of 217Ltrs disinfects the effluent prior to discharge to the application area.

Schedule 2

1.0 General

1.1 For each installation the owner/occupier of the premises shall make an application to the local council to install a Alpha Treat DP10 AWTS as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 26 of the Local Government (General) Regulation 2005.

1.2 The Alpha Treat DP10 AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Ministry of Health.

1.3 Any modification or variations to the accredited design of the Alpha Treat DP10 AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Secretary of the NSW Ministry of Health.

1.4 Each Alpha Treat DP10 AWTS shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:

- The brand name of the system;
- The manufacturer's name or registered trademark;
- The month and year of manufacture.

1.5 The manufacturer shall supply with each Alpha Treat DP10 AWTS an owner's manual, which sets out the care, operation, and maintenance and on-going management requirements of the system.

1.6 The manufacturer shall provide the following information to each local council where it is intended to install an AWTS in their area once Ministry accreditation has been obtained:

- Statement of warranty
- Statement of service life
- Quality Assurance Certification
- Installation Manual
- Service Manual
- Owner's Manual
- Service Report Form
- Engineering Drawings on A3 format
- Detailed Specifications
- A4 Plans
- Accreditation documentation from NSW Health.

2.0 Installation and Commissioning

2.1 The local council should require that on completion of the installation of the Alpha Treat DP10 AWTS, the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed and commissioned in accordance with its design, conditions of accreditation and any additional requirements of the local council.

2.2 The local council should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

3.0 Maintenance

3.1 The local council shall require the owner/occupier of the premises to enter into an annual service contract with a representative of, or a service agent authorised by, Eco Water (QLD) PtyLtd.

3.2 The Alpha Treat DP10 AWTS shall be serviced at three monthly intervals in accordance with the details set out in the owner's and service manual.

3.3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including:

- Pump and air blower,
- The control panel and alarm system,
- Slime growth on the filter media,
- Operation of the sludge return system,
- Sludge build up in the sedimentation chamber,
- Chlorine disinfection unit
- The effluent irrigation area,
- On-site testing for free residual chlorine and dissolved oxygen.

3.4 The local council should require that a service report sheet, in triplicate, is completed for each service. The original shall be given to the owner, the duplicate forwarded to the Council and the triplicate retained by the service contractor.

4.0 On-going Management

4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Alpha Treat DP10 AWTS. The plan shall include details of:

- the treatment process,
- procedures to be followed in the event of a system failure,
- emergency contact numbers,
- maintenance requirements,
- inspection and sampling procedures to be followed as part of the on-going monitoring program developed by the local authority.

4.2 At each anniversary of the accreditation date the manufacturer shall submit to NSW Ministry of Health a list of all Alpha Treat DP10 AWTS installed in NSW during the previous twelve months. NSW Health will randomly select up to 10% of the installed Alpha Treat DP10 AWTS from each year of installation. The manufacturer, at its own cost, shall arrange for the selected Alpha Treat DP10 AWTS to be inspected and sampled. Sampling is to be organised by an

independent JAS/ANZ accredited agency. Samples for BOD₅, TSS, and E. coli are to be determined by a NATA registered laboratory, and samples for disinfectant concentration, if applicable, are to be determined on site. The results are to be reported to NSW Ministry of Health by:

- address of premises,
- date inspected and sampled,
- sample identification number,
- BOD₅,
- TSS,
- E. coli,
- disinfectant concentration, and
- service history (if available)

4.3 Effluent from the Alpha Treat DP10 AWTS taken in any random grab sample shall comply with the following standard:

- BOD⁵ less than 30 mg/L
- TSS less than 45 mg/L
- E. coli less than 100 cfu/100 ml
- Free residual chlorine greater than 0.5 and less than 2.0 mg/L, where chlorination is the disinfection process.

5.0 Permitted uses

5.1 The effluent is suitable for re-use for garden purposes by way of any of the forms of irrigation as described in AS/NZS 1547:2012:

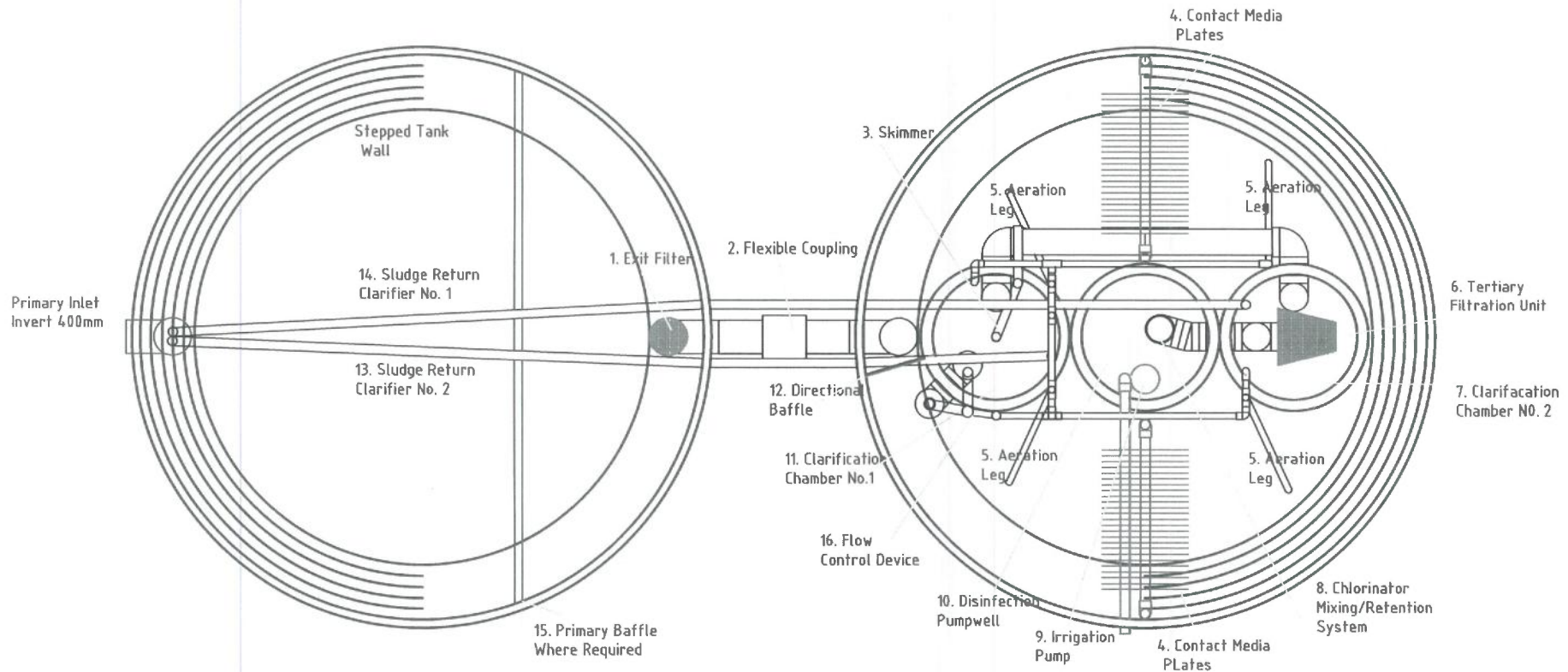
- above ground spray irrigation; or
- surface drip irrigation covered by mulch; or
- sub-surface drip irrigation installed at around 100 mm depth.

Each of the three forms of irrigation is subject to the approval of the local council.

AlphaTreat DP10 Treatment Plant

AlphaTreat Primary
Treatment Tank 3200L

AlphaTreat Aerobic
Treatment Tank 3200L



APPROVED

2 8 NOV 2016

NSW MINISTRY OF HEALTH

DRAWN J.S

DATE 23/3/16

SCALE 1:1

(DO NOT SCALE)

UNLESS OTHERWISE STATED ALL DIMENSIONS
IN MILLIMETERS

TOLERANCES:
LINEAR: $\pm 0.25\text{mm}$
ANGULAR: $\pm 0.5^\circ$

SHEET 1 1



Wastewater Equipment Supplies Pty Ltd

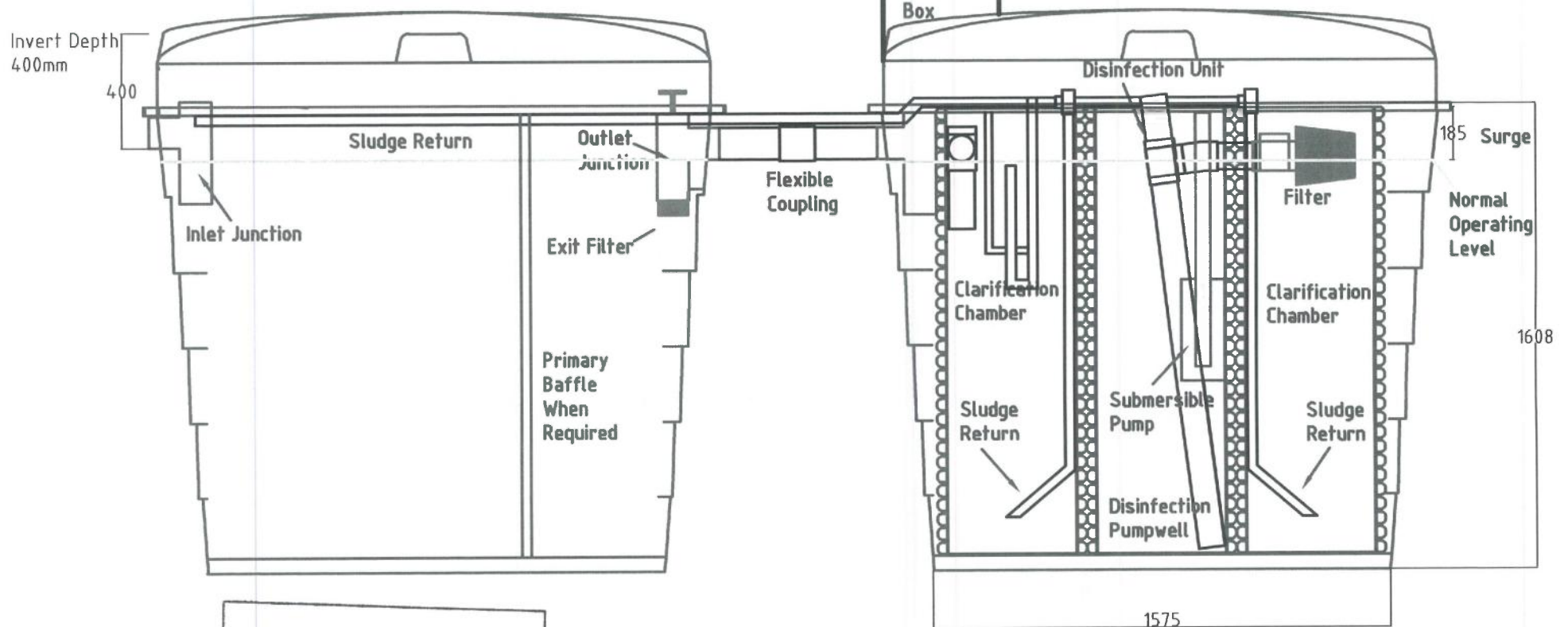
TITLE AlphaTreat DP10

DRAWING NUMBER 1

AlphaTreat DP10 Treatment Plant

AlphaTreat DP10 Primary Treatment Tank 3200L

AlphaTreat DP10 Aerobic Treatment Tank 3200L



APPROVED

2 8 NOV 2016

NSW MINISTRY OF HEALTH

DRAWN J.S

DATE 23/3/16

SCALE 1:1

(DO NOT SCALE)

UNLESS OTHERWISE STATED ALL DIMENSIONS IN METRES

TOLERANCES:
LINEAR: ±0.25mm
ANGULAR: ±0.5°

SHEET 1 1



Wastewater Equipment Supplies Pty Ltd

TITLE AlphaTreat DP10 sv

DRAWING NUMBER 1