

TREATMENT PLANT APPROVAL 06/2019
Plumbing and Drainage Act 2018, part 4.



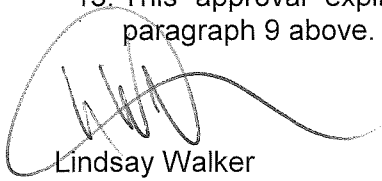
Approval

1. The **Earthsafe D10 S/F Advanced Secondary Quality Wastewater Treatment System with Nutrient Reduction** (“the system”) described in the Specifications and Drawings in the attached Schedule and manufactured by **Eco Water Pty Ltd** (ABN 64 143 207 658) (“the manufacturer”) has been assessed in accordance with the (previous) Queensland Plumbing and Wastewater Code (QPW Code) dated 26 October 2017.
2. Approval is granted for the advanced secondary quality wastewater treatment system with nutrient reduction, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Act 2018*, part 4 and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire Chief Executive Approval document.
4. Any modification by the manufacturer to the design, drawings or specifications scheduled to this approval must be approved by the Chief Executive.

Conditions of approval

1. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.
2. The advanced secondary quality wastewater treatment system with nutrient reduction, which is an example of the approved systems, may only be used on premises that generate per day
 - (a) a maximum hydraulic loading of 3,000 litres; and
 - (b) a maximum organic loading of 700 grams BOD₅.
3. The system must continue to meet the requirements of advanced secondary quality wastewater treatment system with nutrient reduction, producing the following effluent quality —
 - (a) 90% of the samples taken must have a BOD₅ less than or equal to 10 g/m³ with no sample greater than 20 g/m³.
 - (b) 90% of the samples taken must have total suspended solids less than or equal to 10g/m³ with no sample greater than 20g/m³.
 - (c) 90% of the samples taken must have a thermotolerant coliform count not exceeding 10 organisms per 100 mL with no sample exceeding 200 organisms per 100mL.
 - (d) The manufacturer has included nitrogen and phosphorus reduction in the treatment process, the effluent compliance criteria must continue to meet, in addition to the above, the following nutrient criteria:
 - a. 90% of the samples taken, with 95% confidence limits shall have a total nitrogen concentration less than or equal to 10 mg/L; and
 - b. 90% of the samples taken, with 95% confidence limits shall have a total phosphorus concentration less than or equal to 05mg/L.
4. Each system must be serviced in accordance with the details supplied in the owner’s service and maintenance manuals.

5. Each system must be supplied with —
 - (a) a copy of this Treatment Plant Approval document;
 - (b) details of the system;
 - (c) instructions for authorised persons for its installation;
 - (d) a copy of the owner's manual to be given to the owner at the time of installation; and
 - (e) detailed instructions for authorised service personal for its operation and maintenance.
6. This approval does not extend, apply to, or include the land application system used in conjunction with an approved system installed on premises.
7. At each anniversary of the Treatment Plant Approval date, the manufacturer must submit to the Chief Executive a list of all systems installed in Queensland that they have received an installation and commissioning certificate during the previous 12 months.
8. Where the Chief Executive is notified of any system failures that they believe are a result of poor design or faulty manufacture, the Chief Executive may randomly select a number of installed systems for audit. The Chief Executive will notify the National Association of Testing Agencies (NATA) accredited laboratory nominated by the manufacturer, which systems are to be audited for Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS). The sampling and testing of the selected systems, if required, is to be done at the manufacturer's expense. The following results must be reported to the Chief Executive;
 - (a) Address of premises.
 - (b) Date inspected and sampled.
 - (c) Sample identification number.
 - (d) Biochemical Oxygen Demand (BOD₅).
 - (e) Total Suspended Solids (TSS).
9. The Chief Executive may, by written notice, cancel this approval if the manufacturer fails —to comply with one or more of the conditions of approval; or within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
10. This approval may only be assigned with the prior written consent of the Chief Executive.
11. The Chief Executive may, by written notice, cancel this approval if the manufacturer fails —
 - (a) to comply with one or more of the conditions of approval; or
 - (b) within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
12. This approval may only be assigned with the prior written consent of the Chief Executive.
13. This approval expires on 1 January 2024 unless cancelled earlier in accordance with paragraph 9 above.


Lindsay Walker
Director
Plumbing, Drainage and Special Projects
Building Legislation and Policy

Date approved: 1 August 2019

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Plumbing and Drainage Act 2018, part 4

SCHEDULE

Attachment 1

Specifications & Drawings for the
**Earthsafe D10 S/F Advanced Secondary Quality Wastewater Treatment System with
Nutrient Reduction**

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TECHNICAL SPECIFICATIONS

Water Quality Comparison

	Australian Standards	EarthSafe D10 AS Average Test Results
BOD (Bio Oxygen Demand)	<20 mg/L	10 mg/litre
Suspended Solids	<30 mg/L	10 mg/litre
Faecal Coliforms	<10 cfu/100 ml	10 cfu/100ml

Excavation Dimensions

Depth	Approx. 1980mm
Width	Approx. 2600mm
Length	Approx. 4900mm
Weight	360kg

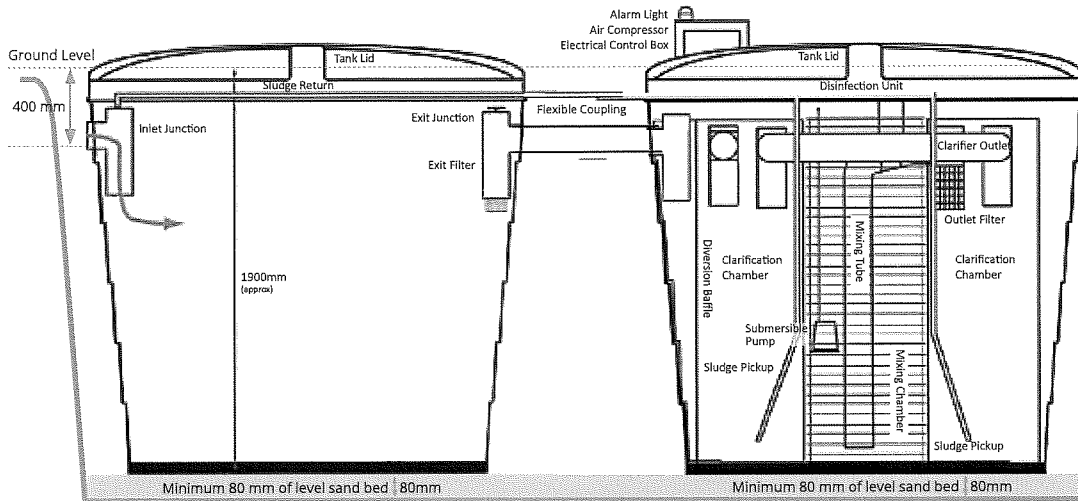
(Measure tank at base level)

Treatment Capacity

Treatment Capacity for EarthSafe D10 system	3000L/day
10EP (Equivalent persons)	Note: 1EP = 150L/person/day

EarthSafe Primary Treatment Tank 3200L

EarthSafe Aerobic Treatment Tank 3200L



Treatment Plant Approval

Approval No: 06/2019

Date of Issue: 12/11/19

Delegate Signature:



Your local sales representative is:

Name: _____

Email: _____

Phone: _____

QLD Government CEA Approved

To view approval certificates, visit our website.



Quality ISO 9001

SAI GLOBAL



Australian Standard 1546.1

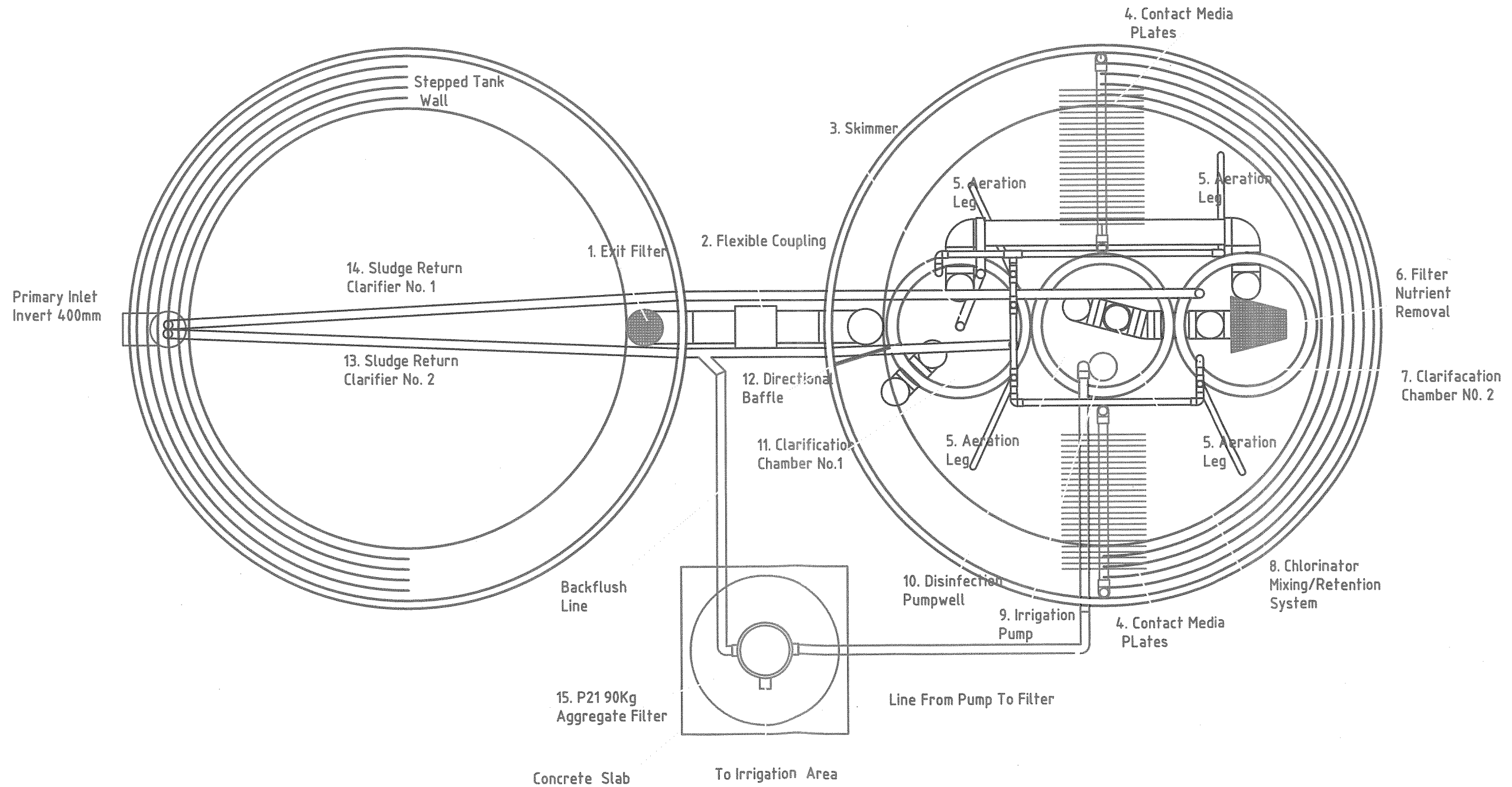


Australian Standard 1546.3

Earthsafe D10 Polymer Wastewater Recycling System

Earthsafe Primary
Treatment Tank 3200L

Earthsafe Aerobic
Treatment Tank 3200L



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Delegate Signature: *[Signature]*

DRAWN J.S. DATE 27,10,08 SCALE 1:1 (DO NOT SCALE)	UNLESS OTHERWISE STATED ALL DIMENSIONS IN METRES TOLERANCES: LINEAR: ±0.25mm ANGULAR: ±0.5°	ECO WATER HOLDINGS PTY LTD TITLE Earthsafe D10 S/F A/S N/R DRAWING NUMBER 1
SHEET 1 1		