

## TREATMENT PLANT APPROVAL 13/2021

*Plumbing and Drainage Act 2018*

### Approval

1. The **OzziKleen RP10A+** (“the system”) described in the Specifications and Drawings in the attached Schedule and manufactured by **Neatport Pty Ltd** (“the manufacturer”) (ABN 62 063 770 534) has been assessed in accordance with the Queensland Plumbing and Wastewater Code (QPW Code) dated 26 October 2017.
2. Approval is granted for the advanced secondary with nutrient reduction quality wastewater treatment system, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Regulation 2018*, and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire Treatment Plant 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

5. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.
6. The advanced secondary with nutrient reduction quality wastewater treatment system, which is an example of the approved systems, may only be used on premises that generate per day:
  - (a) a maximum hydraulic loading of 2,000 litres; and
  - (b) a maximum organic loading of 700grams BOD<sup>5</sup>
7. The system must continue to meet the requirements of advanced secondary with nutrient reduction quality wastewater treatment system, producing the following effluent quality:
  - (a) 90% of the samples taken must have a BOD<sub>5</sub> less than or equal to 10g/m<sup>3</sup> with no sample greater than 20g/m<sup>3</sup>; and
  - (b) 90% of the samples taken must have total suspended solids less than or equal to 10g/m<sup>3</sup> with no sample greater than 20g/m<sup>3</sup>; and
  - (c) Where disinfection is provided 90% of the samples taken over the test period must have a thermotolerant coliform count not exceeding 10 organisms per 100ml with no sample exceeding 200 organisms per 100ml.
  - (d) Where chlorination is the disinfection process, the total chlorine concentration must be greater than or equal to 0.5g/m<sup>3</sup> and less than 2.0g/m<sup>3</sup> in four out of five samples taken.

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- (e) Where the manufacturer has included nitrogen and/or phosphorus reduction in the treatment process, the effluent compliance criteria must be able to meet in addition to the above the following nutrient criteria:
- i. 90% of the samples, with 95% confidence limits taken over the test period shall have a total nitrogen concentration less than or equal to 10 mg/L.
  - ii. 90% of the samples, with 95% confidence limits taken over the test period shall have a total phosphorus concentration less than or equal to 5mg/L
8. Each system must be serviced in accordance with the details supplied in the owner's operation and maintenance manual.
9. This approval does not extend, apply to, or include the land application system used in conjunction with an approved system installed on premises.
10. 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.
11. At each anniversary of the Treatment Plant Approval date, the supplier must submit to the Chief Executive a list of all systems installed in Queensland during the previous 12 months. Where the Chief Executive is notified of any system failures the Chief Executive may randomly select a number of installed systems for audit. The Chief Executive will notify the supplier's nominated NATA accredited laboratory which systems are to be audited for BOD<sup>5</sup> and TSS. The sampling and testing of the selected systems, if required, is to be done at the supplier'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)BOD<sup>5</sup> for influent and effluent; and
  - e)TSS for influent and effluent.

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12. The Chief Executive may, by written notice, cancel this approval if the manufacturer/supplier 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 has been given by the Chief Executive.
13. This approval may only be assigned with the prior written consent of the Chief Executive.
14. This approval expires on 01 January 2024 unless cancelled earlier in accordance with paragraph 12 above.

**Stacey McInnes**  
**A/Director**  
**Plumbing, Drainage and Special Projects**  
**Building Legislation and Policy**  
Date approved: 26 March 2021

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ABN 61 331 950 314

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**SCHEDULE**

**Attachment 1**

Drawings and Specifications for the

**OzziKleen RP10A+**

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## SPECIFICATIONS

Parameter	Raw Wastewater Characteristics
Wastewater treatment capacity	10 persons EP at 200 L/person/day
Maximum hydraulic load	2,000 L/day
Biological Oxygen Demand (BOD <sub>5</sub> )	350 mg/L or 70 g/day/person
Total Suspended Solids (TSS)	350 mg/L or 70 g/day/person
Fats, Oils and Grease (FOG)	75 mg/L. For restaurant applications, a grease trap must be fitted upstream of the treatment plant to remove grease and oils.
pH	6 < pH < 10
Wastewater temperature range	10°C to 38°C

### Treatment Plant Construction:

Tank and components Polyethylene (MDPE)  
All Pipe work PVC

### Electrical Equipment:

Air Blower LP80HN  
Effluent Pump Submersible  
Controls Electronic (OK1 Control Board)

### Alarm System:

Alarm System 24VDC Audio/Visual  
Alarm signal Indicator for High Water, Power & Blower

### Aeration Tank:

Operating Volume 4.1m<sup>3</sup>  
Aeration tank volume 5.3 m<sup>3</sup>  
Residence time 46 hr  
Buffer Zone 1m<sup>3</sup> (approx.)

### Disinfection equipment:

Chlorinator Type Tablet Dispenser Cassette  
Chlorine min contact time (max flow) 30 min

### Motor Box:

Equipment Contained Air Blower, Control Board,  
Decanter, Solenoid Valve  
equipment

### Effluent Pump (standard):

Effluent pump duty 100 litres/min @ 8 m head  
Pump Mounting Suspended on discharge pipe

### Optional Equipment

#### Sock Filtration Equipment:

Flow rate 250litre/min Max  
Pressure 250kPa Max

#### Nutrient Reduction Equipment:

Process control Electronic  
Phosphate reduction process Chemical dosing / Sludge wasting

#### Sock Filters

#### Lifting/Pump Stations

120/210/Other Microns  
SLS250, PT500, other sizes available

#### Other Customization available

Please enquire

#### Irrigation Equipment:

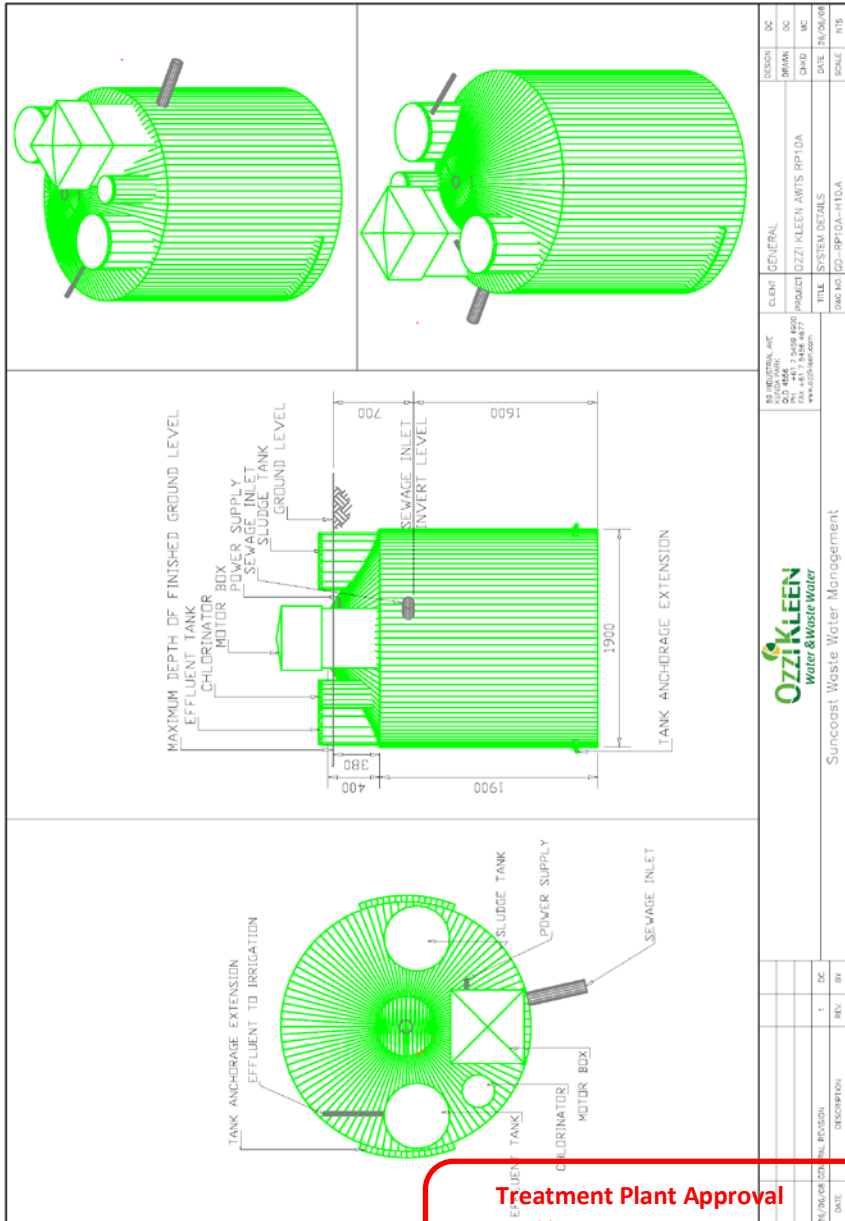
Basic irrigation equipment is supplied with the treatment plant. The irrigation system could be of several different formats. Check with Local Authority requirements.

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 Approved by: **Stacey Melmes**  
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Queensland  
Government

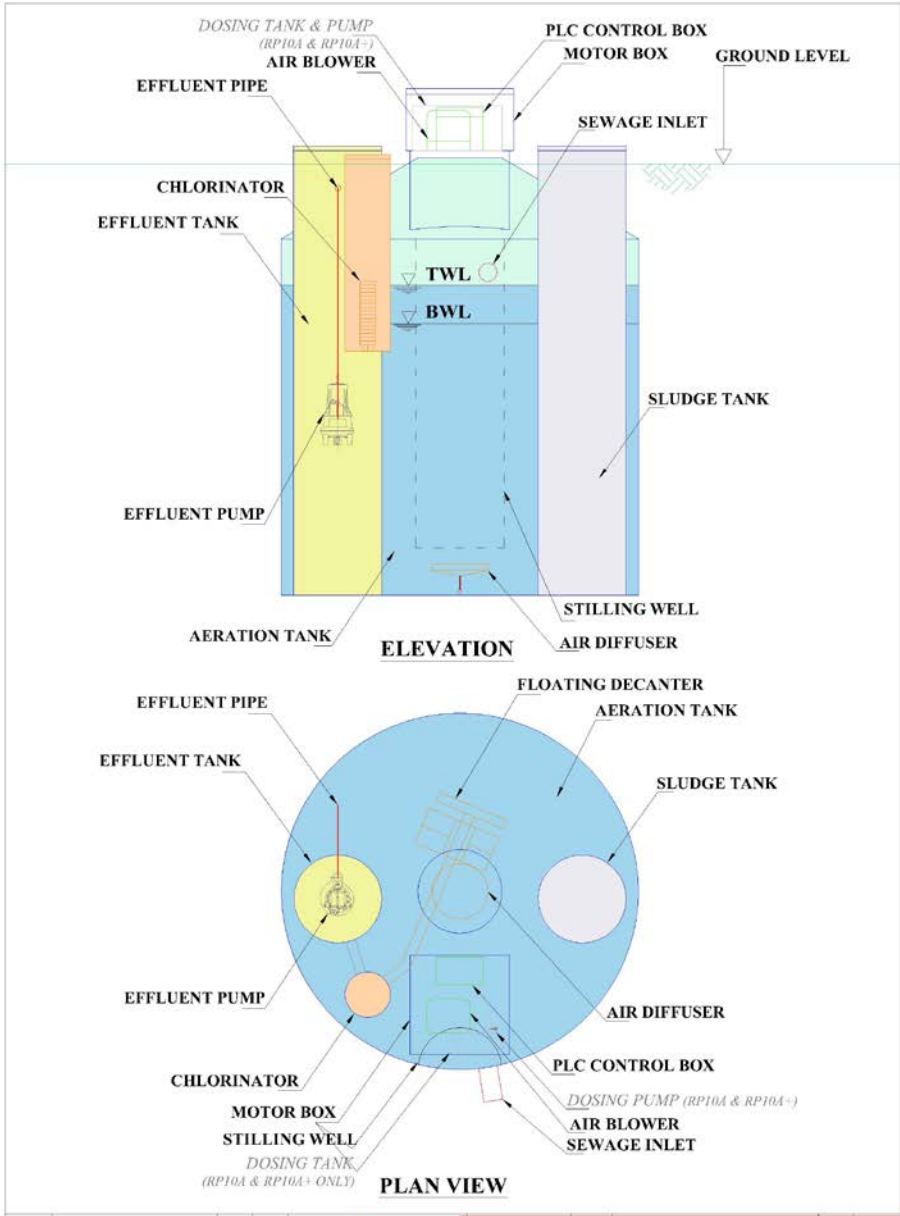
**SYSTEM DIAGRAM**



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## SYSTEM FLOW DIAGRAM



20/12/16	RP10A+ Notation	3	APP
02/09/13	AIR DIFFUSER LOCATION UPDATED	2	SB
28/08/08	GENERAL REVISION	1	DC
DATE	DESCRIPTION	REV.	BY



59 FRODO ROAD KUNDA PARK QLD 4300 PH: +61 7 4651 1111 FAX: +61 7 4651 1112 WWW.OZZIKLEEN.COM	CLIENT	GENERAL	DESIGN	RP
<b>Treatment Plant Approval</b>			DRAWN	
Approved by: <b>Stacey McInnes</b>			CHD	
Delegated Authority			DATE	02
Department of Energy & Public Works			SCALE	

