Queensland Government

TREATMENT PLANT APPROVAL 03/2025

Plumbing and Drainage Regulation 2019, part 4.

Approval

1. The **ECOSEPTIC ENP10-2** (ENP10-2) ("the system") described in the Specifications and Drawings in the attached Schedule and manufactured by **ECOSEPTIC Pty Ltd** (ABN 80 086 310 474) ("the manufacturer"). This transitional Treatment Plant Approval was assessed in accordance with:

   (a) sections 34 and 35 of the *Plumbing and Drainage Regulation 2019* and
   (b) the Queensland Plumbing and Wastewater Code version 2024.1 that commenced on 26 April 2024.

2. A transitional Treatment Plant Approval (TPA) is granted for a **secondary quality** wastewater treatment system, subject to compliance by the manufacturer/supplier with the requirements of the *Plumbing and Drainage Act 2018* and meet the conditions of approval detailed in the Queensland Plumbing and Wastewater Code 2024.1 as detailed below.

3. As no changes have been made to the system, this approval replaces the previous approval, TPA 09/2024 issued on 31 May 2024.

4. This approval, the conditions of approval, and the Schedule comprise the entire TPA document.

5. Any modification by the manufacturer/supplier to the design, drawings or specifications scheduled to this approval must be approved by the Chief Executive.

Conditions of approval

6. The manufacture, installation, operation, service, and maintenance of the system must be in conformity with the conditions of this TPA.

7. The **secondary quality** wastewater treatment system, may only be used on premises that generate per day:

   (a) a maximum hydraulic loading of 2,000 L; and
   (b) a maximum organic loading of 700 g BOD^5

8. The system must continue to meet the requirements of a **secondary quality** wastewater treatment system, producing the following effluent quality —

   (a) 90% of the samples taken must have a BOD^5 less than or equal to 20 g/m³ with no sample greater than 30 g/m³.
   (b) 90% of the samples taken must have total suspended solids less than or equal to 30 g/m³ with no sample greater than 45 g/m³.
   (c) 90% of the samples taken must have a thermotolerant coliform count not exceeding 200 organisms per 100 mL with no sample exceeding 1000 organisms per 100 mL.
   (d) Total chlorine concentration must be between 0.5 g/m³ and 2.0 g/m³ in four out of five samples taken.

9. Each system must be serviced in accordance with the details supplied in the owner's operation and maintenance manual.

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10. This approval does not extend, apply to, or include the land application system used in conjunction with an approved system installed on premises.

11. Each system must be supplied with —

    (a) a copy of this TPA 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.

12. At each anniversary of the TPA 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^5 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^5 for influent and effluent and
    e) TSS for influent and effluent.

13. 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 been given by the Chief Executive.

14. This approval may only be assigned with the prior written consent of the Chief Executive.

15. This approval expires on **31 December 2025** unless cancelled earlier in accordance with paragraph 13 above.

Gregory Schonfelder

A/Director
Building Policy
Date approved:
16 JANUARY 2025

Level 15,
53 Albert Street Brisbane
GPO Box 2457, Brisbane Qld 4001
Website www.business.qld.gov.au

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SCHEDULE

ENP10-2

Attachment 1 – ENP10-2 – Operators manual

EcoSeptic ENP10-2
AWTS Twin Poly

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CONTENTS

PRE INSTALLATION INFORMATION

AFTER INSTALLATION CARE

Initial:
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OWNERS MANUAL & DETAILS

- Name.....
- Address.....
  .....
- Model.....
- Installation Date.....

Thank you for purchasing that system, which we believe, is the best available. The local environment will also show its appreciation.

Your EcoSeptic Wastewater Treatment System is designed to treat domestic wastewater to a very high standard. All that is needed are some common sense household approaches.
It is not only hygienically safe but also ideal to discharge above ground with no offensive odours.

It saves water usage (and water rates) by recycling through an automatic irrigation system, water that would under normal circumstance go to waste, adds value to your property and promotes garden growth. The system does all this quietly and is fully automatic.
The EcoSeptic system is a biological filtration treatment system and does not rely on strainer type filters to process household water.

IRRIGATION REQUIREMENTS

Irrigation requirements differ from council to council so please ensure that you refer to your site assessment report and/or council approval.

If your requirements are greater than the standard irrigation package supplied by us (ie. 50m ply pipe laid above ground and 4 sprinklers), please contact your EcoSeptic representative or local irrigation specialist. This may avoid potential hold ups of your final council inspection.

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INSTALLATION INSTRUCTIONS (Plumbing)

The following instructions are to enable the proper installation of the EcoSeptic unit. It is necessary the follow these instructions so you don't void any warranties. Please ensure you have council permits/ approvals before installation of tank.

Please give minimum of one weeks' notice for your EcoSeptic unit, more notice is appreciated to ensure truck availability.

Risers, if required, should be ordered with EcoSeptic before delivery of the unit. If ordered separately, delays and additional delivery charges will be incurred. (Risers raise top of tank if there are drainage issues).

All deliveries are C.O.D payments and are to be given to the driver before unloading, unless other arrangements have been made.

When excavating the hole for the tank/s please ensure the excavation size is correct (if you have any doubt please contact your EcoSeptic representative). Absolutely free access to the excavation and the area for the truck is critical. The truck must be able to get within 1 metre of the tank excavation and the area for the truck to unload must be firm ground and less than 5% grade. The driver's judgement of the safe unloading and accessibility is final. Failure to comply will incur additional installation costs at your expense.

Ensure that the excavation has a level base. The base of the hole is determined by the height of the inlet pipe (this will also determine the overall height of the tanks/s). The base must be firm and be on a 50mm bed of sand or similar material. Failure to do so will void any tank warranty.

Backfill the tank/s with clean backfill free of large roads, sharp objects and rubbish, then fill tank/s with clean water immediately. This is best done with a hose. For plastic tanks fill pump out chamber first.

All plumbing and electrical connections must be carried out by licensed contractors in accordance with any government guidelines or council requirements.

Model EcoSeptic ENP10-I Poly (plastic twin tank system) must also follow additional instructions supplied with the unit on delivery. These additional instructions include "ground anchors".

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INSTALLATION INSTRUCTIONS (CONT)

CANCELLATION

If you wish to cancel a delivery, you must do so by 1:00pm the day preceding the delivery.

CANCELLATION DUE TO OVERNIGHT RAIN

If a site contact person and phone number has been provided by you we will try to contact that person/s between 5:30 – 8:00 am to ensure the delivery is still required. EcoSeptic cannot accept any responsibility for failure to contact your site person/s nominated.
Late notice of cancellation will incur an UNLOADING FEE or return to site cost or crane costs to your account.

WHEN YOU ARE READY TO USE YOUR ECONOCYCLE

When the EcoSeptic is ready to be used, contact your representative and notify them that you are ready for the unit to be commissioned. Please give at least one weeks' notice. Please ensure that the plumbing and electrical have been connected and are operational. This commissioning involves the fitting of the irrigation and aeration pumps and the laying out of the irrigation line. It is advisable that the owner / occupier is onsite at this stage to ask any questions you may have on operations of the EcoSeptic unit.
It is now your quarterly service will begin. These services will occur automatically from this date. If prior arrangements have to be made to gain access, please notify EcoSeptic of all your details including work numbers.

PLEASE NOTE – Follow instructions carefully so you do not void your warranty.

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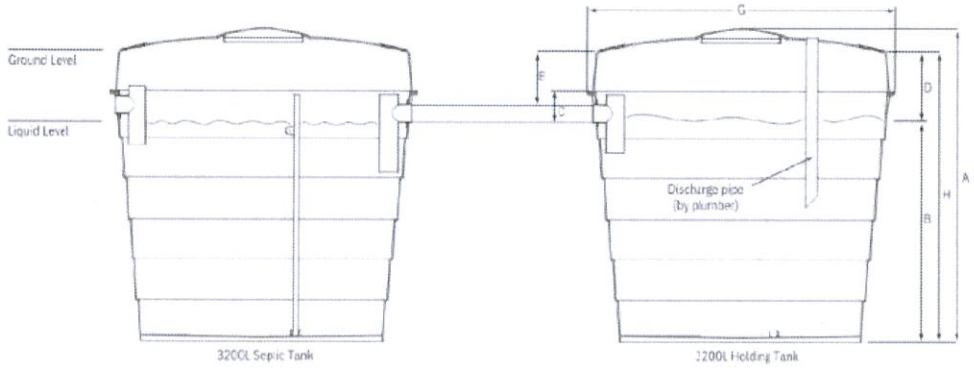
ECO-SEPTIC

All Dimensions (mm), Capacities and Weights Nominal

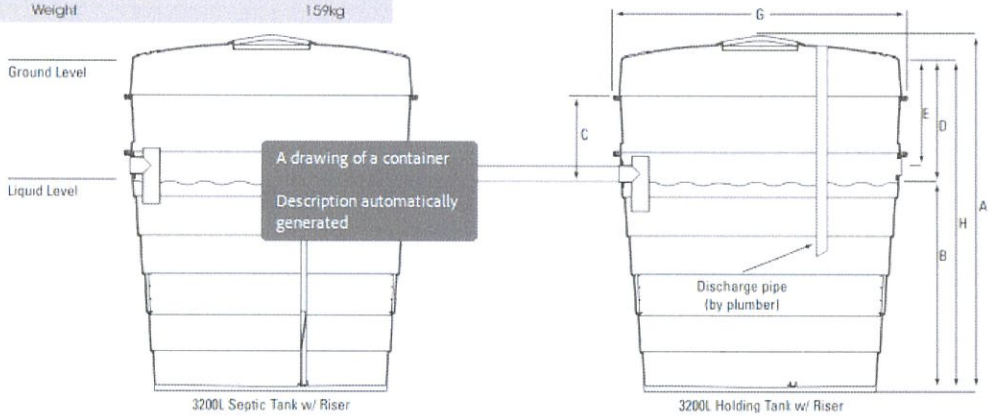
A	Overall tank height	2038
B	Liquid depth level	1427
C	Tank rim to invert of inlet	200
D	Under roof to liquid level	460
E	Maximum cover to inlet pipe	350
G	Overall diameter	1998
H	Tank base to ground level	1887
	Capacity	3200L
	Weight	122kg



3200L Septic Tank 3200L Holding Tank

Dimensions Nominal (mm)

A	Overall tank height	2410
B	Liquid depth level	1427
C	Tank rim to invert of inlet	585
D	Under roof to liquid level	845
E	Maximum cover to inlet pipe	735
G	Overall diameter	1998
H	Tank base to ground level	2272
	Capacity	3200L
	Weight	159kg



3200L Septic Tank w/ Riser 3200L Holding Tank w/ Riser

Initial:
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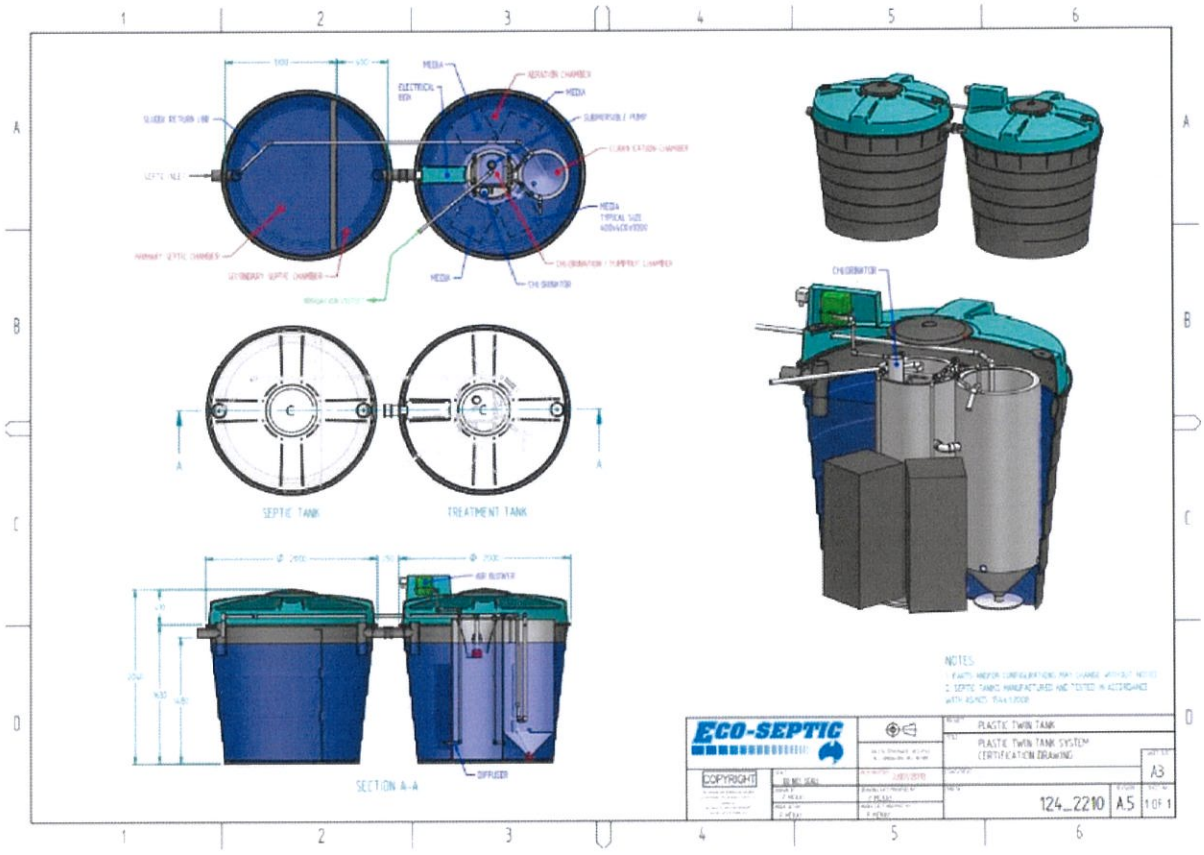

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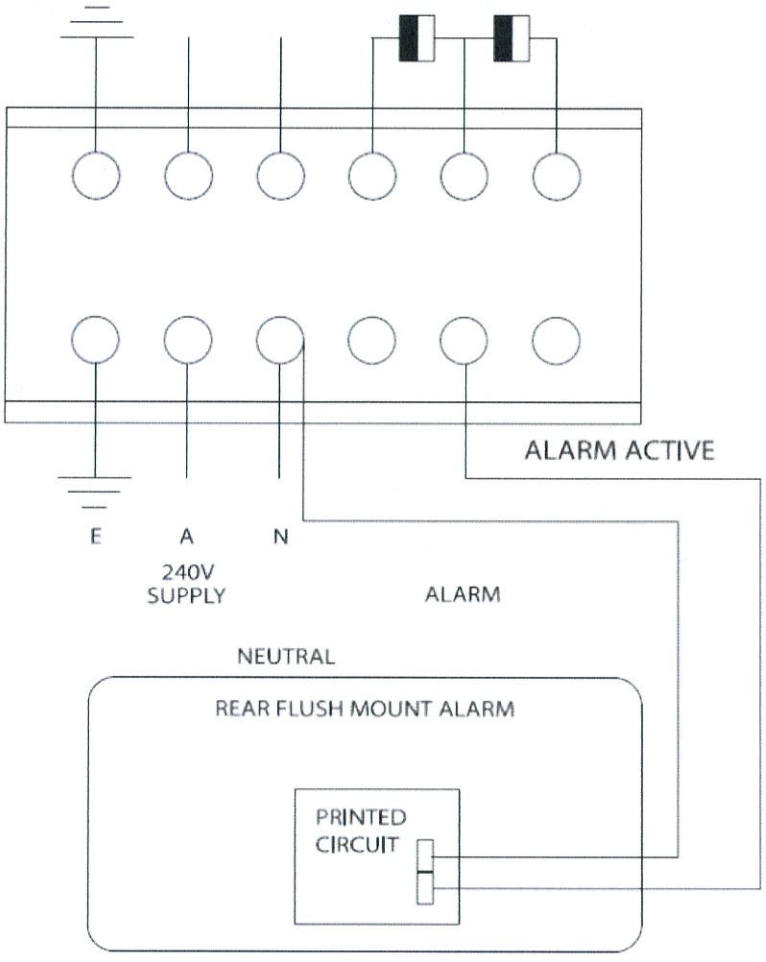
ELECTRICAL CIRCUIT DETAILS

All electrical work must be performed by a licensed electrical contractor in accordance with the S.A.A. wiring rules, (A.S 3000) and the relevant local supply authority's rules.



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TROUBLE SHOOTING

The EcoSeptic AWTS is supplied with a warning panel that alerts of malfunctions in its operations. The alarm panel must be left in the NORMAL position. Should the alarm be activated, switching to MUTE can turn off the buzzer. The alarm indicates high water level or loss of air. Each has a separate light, which will remain on until the fault has been rectified. It is most likely that the system will operate quite satisfactorily for several days even if a problem arises. However, if the warning is activated and none of the following solves the problem, please contact EcoSeptic as soon as possible.

PROBLEM	***WHAT TO DO***
Water Lights	Check the irrigations line and outlets are clear and not kinked or restricted. Clear filter (if fitted) Check power supply Allow 30 Minutes for system to catch up after power interruption
Air Light On	Check power supply Check that system is still making humming sound / blower working.
Offensive Smell	Check that smell is not coming from another source e.g. dry waste traps, damaged or low vents Check aeration pump operation
Irrigation not working	Clear outlets & or filters (if fitter) Check irrigation Pipework for damage.

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EQUIPMENT DESCRIPTION

The air blower is located under the cover on top of the tank. It provides fresh air to help the purifying microorganisms to carry out their job. The blower runs all the time. Although it is very quiet, a light humming noise can still be heard next to the blower.

Under the cover are the power sockets for the air blower and the submersible pump, as well as a two-pin socket for the high-level float switch.

An automatic submersible pump delivers the treated water to the irrigation system. It is located within the pump-out zone of the tank.

POWER

The power should be always left on. Even if you are going on holidays or vacating the premises. If you encounter a blackout or must switch the power off for a short period of time, always check the blower is running again when the power is restored.
If the blower does not re-start, switch the power off again for 10 minutes before turning on again.

If the power is off for an extended period, say 8 hours, you should keep water usage to a minimum. You can still flush toilets and wash dishes but keep the shower short.
An alarm condition may occur after an extended blackout as the system may fill to high levels.
It should return to normal sometime after power is restored.
If the power is off for too long, the biological activity will die off and the system will need pump out.

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DO'S AND DON'T'S

Do advise us if the system won't be used for more than a month and always leave a contact name.

Do use low / no-phosphorus or biodegradable products in their recommended quantities. Over use is expensive and unnecessary.

Do endeavour to spread the washing loads over the week to obtain maximum efficiency.

Do contact your accredited service agent or EcoSeptic head office if your warning device is activated after referring to trouble shooting manual.

Do move your sprinklers if ground becomes too saturated.

Do plant suitable flowers and shrubs in the irrigation / disposal area. (see page 16)

Don't turn power supple off. If a power failure occurs, limit your water usage until power returns.

Don't use or dispose of strong anti-bacterial products, insecticides, herbicides, pesticides or unused medicines into the system. These could damage the system or kill the bacteria that are required to purify the water and bad odours.

Don't dispose of disposable nappies, condoms, tampons, sanitary napkins, cotton buds, any plastics, papers, cooking oils or fatty wastes into your system.

Don't use any sanitizing agents other than those recommended by the manufacturer. Dangerous chemical reactions can occur.

Don't allow unauthorized persons to tamper with your system.

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TECHNIAL PROCESS DESCRIPTION

The EcoSeptic Wastewater Unit works on the combined principles of primary settling plus aerobic and secondary treatment. The treatment process is followed by nutrient removal through the irrigation system.

All the wastewater flows first into the septic zone where solids are settled out and the anaerobic microorganisms carry out the initial part of the purification process.

Once organic impurities have been absorbed within the aerobic culture of the microorganisms, the water passes to the secondary sedimentation zones.

Clear water flows over into the clarification zone and the occasional film of microorganisms are automatically transferred back to the primary zone to improve its performance. In the disinfection zone, mild controlled chlorinating is applied to complete the treatment process. The treated water is automatically pumped onto areas of your lawn or garden.

EcoSeptic uses a special grade of chlorine-based compounds so that when pumped onto the garden, any residual chlorine breaks down rapidly and allows for excellent plant growth.

Treated water quality is better than standards set by relevant health authorities on wastewater re-use for irrigation purposes.

PRIMARY CHAMBER

Influent enters the chamber via the source whereby scum and solids capable of settling are separated from the raw influent. Primary treated effluent flows through a transfer port to the aeration tank. This tank will also act as a Storage Chamber for sludge returned via the Clarification Chamber.

AERATION CHAMBER

Water enters via the Primary Chamber. Air is introduced into this chamber via an air blower to create an environment for aerobic bacteria and other helpful organisms to consume the organic matter present. The aeration tank is designed in a manner to help prevent short circuiting of the wastewater to ensure extended aeration. Media is also present in the tank to support the growth of bacteria.

CLARIFICATION CHAMBER

The Clarification Chamber is essentially a quiescent zone where suspended particles/solids are settled out of the water. These particles are returned to either the septic or aeration chambers via a sludge return which aids in further biological reduction, de-nitrification and providing a constant food supply rich in microbes supporting the system through periods of limited flows.

DISINFECTION

Disinfection is achieved via low doses of Chlorine to kill off any remaining harmful organisms. This process is achieved through an automatic chlorinator with sufficient doses to last between maintenance visits.

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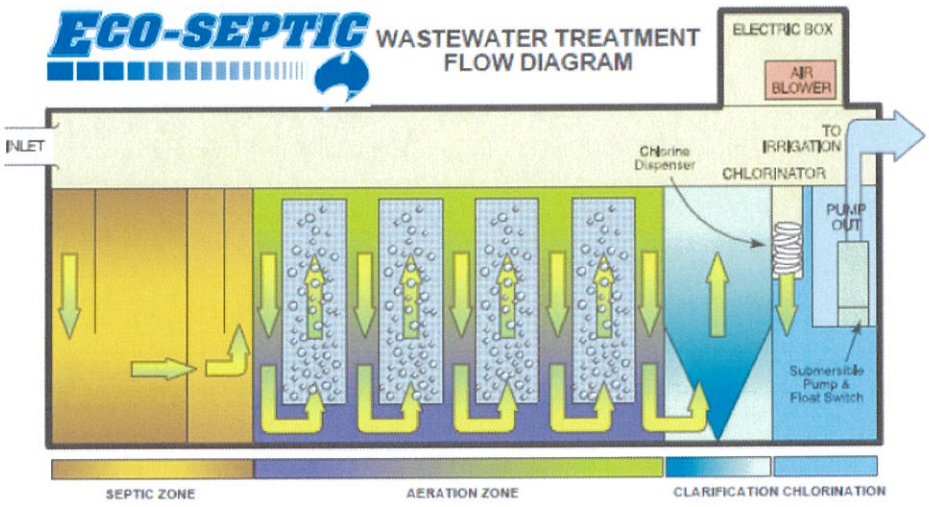

PUMP OUT (Septic Tank)

Depending on the individual usage of your septic system, a slow but gradual accumulation of non-biodegradable matter may lead to the need for pump-out.

This applies to any septic tank and our service man will advise you if a pump out will be required.

EcoSeptic will be happy to advise and assist in this matter. Pump-out of the system is not a standard service procedure and incurs an additional cost.

PLEASE NOTE
NEVER ALLOW PUMP OUT IN WET WEATHER OR SOON AFTER DUE TO THE RISK OF TANK FLOATATION.

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IRRIGATION AREA

Your irrigation / disposal area will operate more efficiently and have fewer wet areas if covered with vegetation. The following is a list of some of the plants and shrubs that are suitable for planting in wet conditions. Consults your local nurseryman for the species that will suit your area and soil conditions.

PERENNIALS
Agapanthas
Canna
Gazania
Umbrella Grass
Helleborus (Christmas rose)
Hosta (Plantain Lilly)
Shasta Daisy
Marguerite Daisy
Mazus

SHRUBS
Aucuba
Bauera
Callistemon
Bottlebrush
Coprosma
Cordyline
Flax
Strelitzia
Photinia
Viburnum

GROUND COVERS
Grevillea
Bougainvillea

GRASSES & CLIMBERS
Kikuyu
Buffalo
Kennedya
Hardenbergia

The treated effluent from domestic wastewater treatment systems should not be used for human consumption or to irrigate vegetables or fruit. The irrigation area should not be used for recreational purposes.

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ECO-SEPTIC

WHICH CLEANING PRODUCTS

WASH POWDERS, LIQUIDS & SOFTENERS

Add Soft	Blue	Blue Gum	Snow Care	Castle
Cuddly	Dynamo Embassy	Fab	Fluffy	Omo
Gows	Launda	Love & Care Lux	More	Surf
Pree	Purelitle	Rinso	Softly	Ease Hurricane
Woolmix	Topwash	Cold Power	Parrys	Sunlight

DISHWASHING

Bushland	Finish	Greenapple	Kit Palmolive	Sunlight	Trix

SURFACE CLEANING

Jif or similar cream cleansers / Spray & Wipe

TOILET CLEANING

Hot water is an effective disinfectant and can be used with a little cream cleanser like JIF.
Bleaches and antibacterial products are a NO NO!
Avoid all products with bleach or ammonia.

NOTE: these are our recommendations and they are based on product knowledge at the time of writing. We do not intend to discredit any product or favour others, we are concerned primarily with the function of your unit.
If you accidently put the wrong products in your system, don't hesitate to call us. We will advise on ways you can remedy the situation or suggest ways to recommence the bacterial activity.

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SERVICE & MAINTENANCE

It is a requirement of State and Local Government Authorities that The EcoSeptic domestic wastewater treatment system receive quarterly maintenance, by an authorised service contractor.

The owner or tenant of the property will be obliged to enter a service contract with EcoSeptic, your agent or another authorised service company.

During the initial service period and subsequent service contract, our service technician will perform the following and the company will forward a written service report to the household and the local council authority.

- Sample water through the system for quality testing
- Measure residual chlorine & replenish chlorine supply
- Record water usage
- Inspect the septic tank
- Inspect the pump & blower operations
- Make any necessary adjustment, inspect the treatment tank including scum & sludge return, water & airflow
- Inspect operations and conditions if irrigation system
- Replenish the supply of disinfectant

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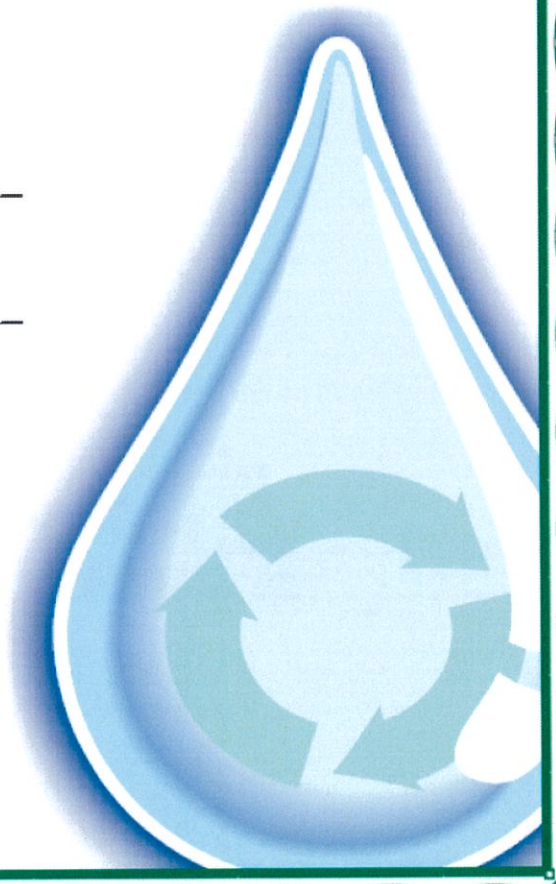
Warranty

ECO-SEPTIC

To certify that each and every Econocycle water treatment system is manufactured to strict guidelines and uses only quality components to ensure a product that is safe, reliable, effective and environmentally friendly.

Tanks *15 years* from date of purchase
Pump and Electrics *2 years* from date of purchase



Signed by

_____

Date of Purchase

_____

Econocycle guarantees to repair or replace any part of the system requiring repair or replacement due to defective manufacture.

Such guarantee shall only apply to any defect of which notification is given within 24 months from the date of installation and under continuous service agreement with Econocycle or an authorised service agents.

Concrete tanks are covered by the manufacturers warranty of Fifteen (15) years.

NOTE :
Unauthorized work carried out on the ECONOCYCLE system will void all warranty.

Econocycle must be installed and operated in accordance with installation instructions.

CONTACT DETAILS

Office & Factory

65-67 Warradale Road,
Warragamba, NSW 2752

Phone: 02 4774 1316
Freecall: 1800 808 135
Fax: 02 4774 1318
Email: sales@econocycle.com.au

mailto:sales@econocycle.com.au

www.econocycle.com.au

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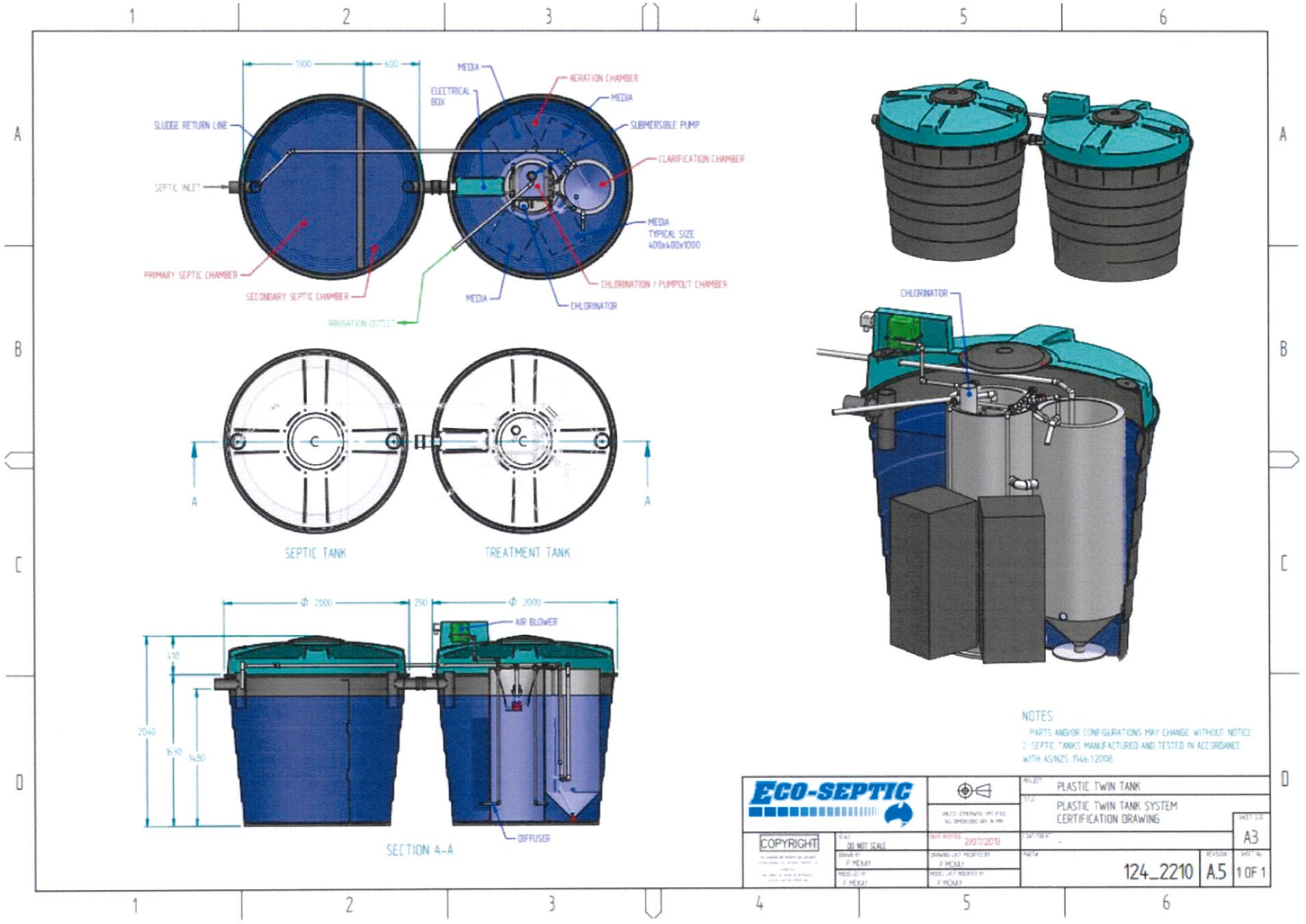
Attachment 2 – ENP10-2 – Schematic diagram



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