



# BIOLYTIX™

Gently Aerated Vermifiltration  
Wastewater System



Owner's  
Manual

---

# Biolytix Wastewater Systems

## Owner's Manual

### To the Owner

Congratulations on choosing a Biolytix BioPod wastewater treatment system. Vermifiltration is a powerhouse for efficient, odour-free wastewater treatment and Biolytix enhances this with additional aeration to achieve excellent waste breakdown to a Council-approved Secondary Treatment level. Employing nature to do the work, the Biolytix BioPod is engineered to meet the needs of billions of hard-working organisms that treat your wastewater. Providing a stable environment, food as they would naturally find it, and an abundance of oxygen. With these ideal conditions the biolytic organisms concentrate on what they do best; continually processing solids waste for free.

Please take your time to read this Manual carefully. It is your responsibility to operate your BioPod as set out in this Manual. In not doing so may void your warranty. If you have questions or would like further information, please contact our Customer Support on 0800 628356.

Kind Regards  
The WaterFlow Team



# Biolytix Wastewater Systems

## Owner's Manual

### Warranty

WATERFLOW NZ LTD warrants that the NaturalFlow System will be free from defects in material and workmanship for the following periods of time from the date of installation as set out in the following conditions:

1. Plastic-Moulded tanks 15yrs
2. Filter media 15 yrs.
3. Dosing float and/or pumps 2yrs
4. WATERFLOW NZ LTD will at its discretion replace or repair such components that prove to be faulty with the same or equivalent part at no charge.
5. Warranty of Operation covers the performance of the NaturalFlow System as connected to the effluent inflow for which they are designed, and has been installed to the criteria as set out in the relative installation instructions and procedures, and has a signed Service/Maintenance contract in place with Waterflow NZ Ltd or it's appointed agent/s.

#### **Warranty excludes defects due to:**

- A. Failure to use the system in accordance with owner's manual.
- B. A force majeure event outside the reasonable control of WATERFLOW NZ LTD such as (but not limited to) earthquake, fire, flood, soil subsidence, ground water table variations or plumbing fault.
- C. Modifications to surrounding landscape contour after installation
- D. The actions of a third party
- E. The system required to bear loads (either hydraulic or biological) greater than that for which it was designed
- F. Any modifications or repairs undertaken without the consent of WATERFLOW NZ LTD
- G. Failure, where applicable, to fence and plant disposal field.

Dean Hoyle | Managing Director

# Biolytix Wastewater Systems

## Owner's Manual

### Compliance

The Biolytix has been tested and certified as being compliant with the Australia & New Zealand Standard AS/NZS 1546.3:2008. The Biolytix has also on two separate occasions partaken in the On-site Effluent Treatment (OSET) trial run by Environment Bay of Plenty at the Rotorua Wastewater Treatment Plant. In both of the trials the BF6 produced treated effluent of better than a secondary treatment level which is the standard required by most New Zealand Councils for on-site wastewater treatment and disposal. To ensure continued compliance after commissioning, it is important that you operate and maintain your system as described in this Manual.

### Service Agent Role

It is recommended that all Biolytix systems are serviced by a qualified professional once every twelve months, unless otherwise specified by the manufacturer or local Council requirements.

### Home Owner Care Role

The Home owner is greatly encouraged to maintain a monthly visual check of the operation of their system and to make sure their land application systems are maintained in good condition.

1. Industry recommendation is to have a maintenance contract in place at all times
2. Visual check of treatment system
3. Visual check of land application system
4. Notify WATERFLOW NZ of any issues

# Biolytix Wastewater Systems

## Owner's Manual

---

### Inspection Checklist

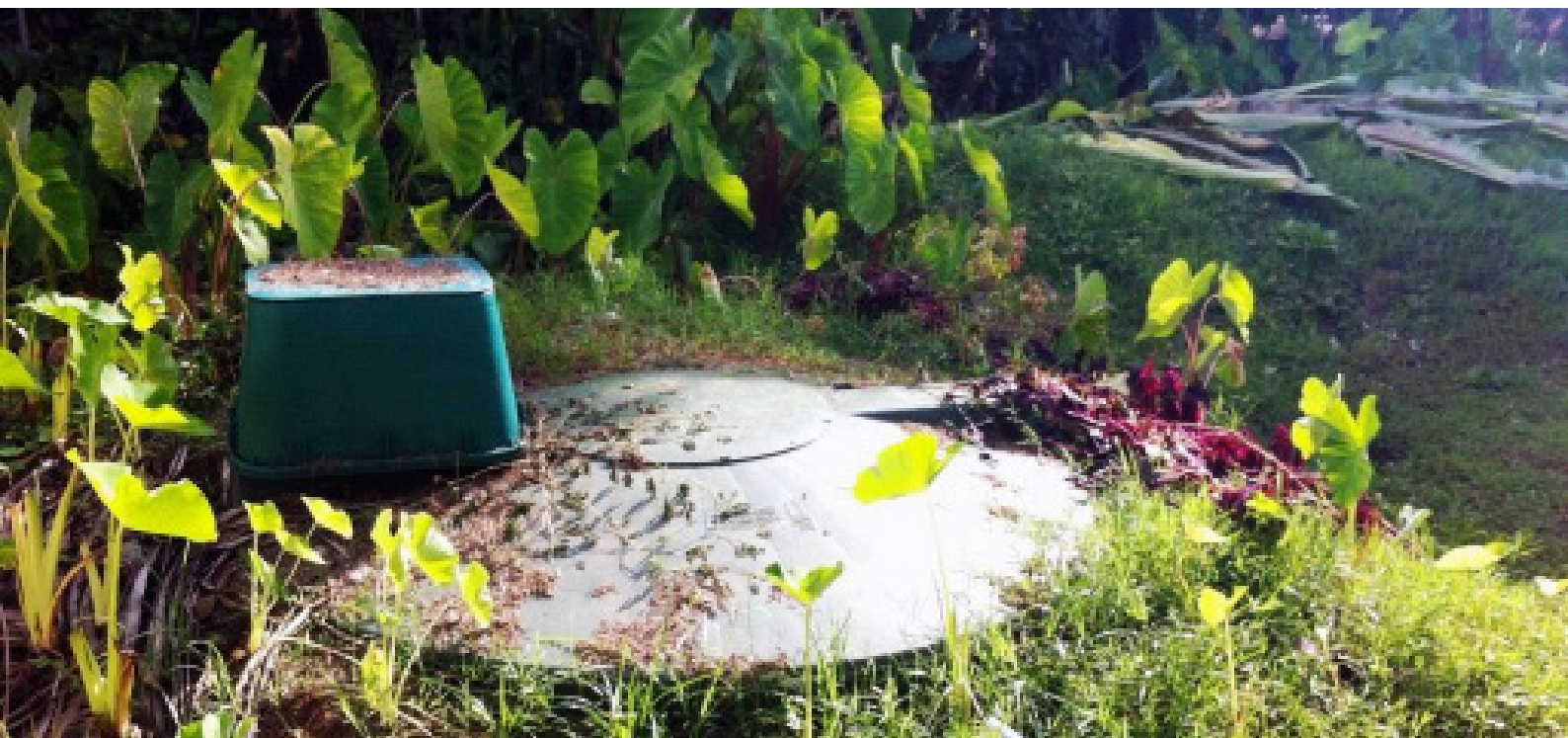
When checking the system operation, take particular note of;

1. BioPod build-up. (simple observation through lid adequate).
2. Field performance, particularly looking for any undue odours or effluent breakout (flush field lines 2–3 monthly).
3. All electrical parts (if applicable). Ensure all pump alarms are working.
4. Clean disc filter (if installed) 2–3 monthly (PCDI irrigation systems only)

---

### Did you know...

...that as a homeowner you're responsible to make sure your wastewater system gets the required maintenance needed to protect the investment in your home? This guide will help you care for your wastewater system. It will help you understand how your system works and what steps you can take as a homeowner to ensure your system will work efficiently.



# Biolytix Wastewater Systems

## Owner's Manual

### Operation

Your BioPod is designed to treat domestic household wastewater only. To ensure ongoing compliance with regulations and to avoid costly repairs, a few of simple guidelines need to be followed. This section explains how to use your BioPod and what may and may not go into it.

#### Maximum Wastewater Volume

Your BioPod is connected to some form of soil dispersal system. Usually, this is a drip irrigation system, but other systems, such as LPED and soil absorption trenches, may also be used.

Note: The maximum volume of wastewater your BioPod can treat is limited by both the capacity of your dispersal system and/or the capacity of the Bio-Pod (1600 litres per day) whichever is the lesser. If you cannot find this information, please contact your consultant or the Council who issued your Consent.

You should avoid overloading your treatment system at any time and peak wastewater volumes must not exceed 600 L per hour. If you operate your system close to its capacity limit, or there is a risk you may be exceeding this limit, we recommend the following measures:

- Installation of water-conservation fittings and dual-flush toilets.
- Only washing clothes when there is a full load; and spreading out your washing over the week instead of doing all in one day.
- Only using the dishwasher when there is a full load.
- Minimising or avoiding use of kitchen sink waste disposal units
- Large numbers of visitors can significantly increase the volume of wastewater. After your visitors have left, please give your BioPod a few days to recover. Ensure that you do not exceed the capacity of your dispersal system.

# Biolytix Wastewater Systems

## Owner's Manual

### It is important to avoid the following:

- Taps left running: One tap left running overnight can waste over 10,000 litres.
- Consider installing water-saving taps. They only use about 20% of the water of conventional taps.
- Leaking taps and toilet flush mechanisms: These can waste thousands of litres of water every day and easily overload your BioPod. Please check for leaks frequently and arrange for repairs to be done promptly.
- Give your BioPod a few days to recover after discharging large volumes of water into it.
- Emptying or backwashing of swimming or spa pools: Your BioPod and disposal field are normally not designed to cope with the resulting large volumes of water. Also, the disinfectants contained in the water of pools can negatively affect the biological treatment process of the BioPod. These should be designed to have their own disposal system.
- Other connections: Do not connect downpipes, drainage pipes etc. to your BioPod. This is illegal and will result in overloading.
- Stormwater ingress: Avoid landscaping around your BioPod that results in stormwater runoff flowing over its lid or the system getting inundated. The periphery of your BioPod must always be well drained. Problems with your BioPod resulting from unsuitable landscaping and insufficient drainage are not covered by the Biolytix warranty.
- Power turned off: Ensure that power to your BioPod is always on. If power is turned off, wastewater will not get pumped out. This can result in environmental hazards and costly repairs.

### Intermittent Use

The Biolytix is quite tolerant of the intermittent loadings expected from holiday homes where nobody is living in the home for up to several months and will operate without any decline in performance. However, we recommend that if your BioPod is not used for more than 12 months you organise for a maintenance inspection by your local Biolytix technician during which the level of worm activity can be assessed, and additional tiger worms added if required. This could of course be done as part of the standard annual service.

# Biolytix Wastewater Systems

## Owner's Manual

### Wastewater Constituents

Your BioPod uses a highly effective biological process to treat normal household wastewater, which includes wastewater from toilets, bathrooms, the laundry, kitchen, and the dishwasher. The organisms living in it are resilient and can cope with conventional detergents and other household chemicals, if they are used reasonably and according to manufacturer instructions.

Pharmaceuticals do not usually pose a problem, as long as they are not disposed of directly into the system (e.g. do not flush unused drugs down the toilet, or pour them down the sink etc.).

To ensure a long life of your system, we recommend the following simple rules:

- Only use eco-friendly products that are suitable for a vermiculture system.
- Choose detergents low in phosphorus and sodium. The Lanfax Laboratories investigated the phosphorus and sodium content of a wide range of laundry detergents. Their findings are published at [www.lanfaxlabs.com.au](http://www.lanfaxlabs.com.au)
- Use biodegradable soaps.
- Remove the flow of oils, fats and grease into your BioPod; ideally wipe plates and cooking utensils with a paper towel before washing, to remove excess grease, and dispose with household garbage.

Harsh chemicals and non-biodegradable materials can negatively affect your BioPod and result in expensive repairs. Specifically, you must ensure that none of the following pollutants enter your BioPod.

Chemicals & Non-biodegradable materials:

- Bleach (small quantities for laundering and products similar to Napisan should not harm the system)
- Chlorine and other harsh disinfectants
- Caustic soda (NaOH) and other highly alkaline (pH > 9.5) or acidic (pH < 4) chemicals
- Drano and other drain cleaners
- Commercial cleaning products (Chemicals that are not typically used in a household)
- Paints, solvents, pesticides and herbicides and other toxic substances



# Biolytix Wastewater Systems

## Owner's Manual

Non-biodegradable materials:

- Disposable nappies and nappy liners
- Baby wipes and other wipes
- Any sanitary products that are not biodegradable
- Large amounts of animal hair (this could, for example, be a problem, if you are breeding pets)

Also, you must not dump any waste, including food scraps and grass clippings, directly into your BioPod via its access hatch.

## Looking after the worms

We are the worms inside your Biolytix that protect your environment but you need to look after our environment so we can look after yours.

PLEASE DON'T FEED US:

- We hate coffee grinds, onions and citrus
- Fat suffocates us and it blocks your irrigation pump wasting power
- We are not very good swimmers so please conserve water and don't drown us
- Go easy on the food scraps - we're trying to watch our waistlines
- Please don't nuke us with bleach or disinfectant.
- Use eco-friendly products
- Please don't switch our power off - we need air to breathe
- Please don't forget our regular service.

# Biolytix Wastewater Systems

## Owner's Manual



### Maintenance

A malfunctioning treatment system can lead to serious problems with the dispersal system and vice versa. Therefore, to ensure compliant and reliable performance, both your BioPod and your dispersal system must be maintained correctly.



### Servicing

WaterFlow requires you to have your BioPod serviced at least annually by a WaterFlow-accredited technician. This is very important to ensure its ongoing optimum performance and compliance with regulations. Insufficient maintenance can result in severe damage to the BioPod and to the dispersal system, which may require expensive repairs.

Note that some Regulatory Authorities require service intervals shorter than 12 months.

Using a Waterflow-accredited technician ensures that your BioPod is maintained correctly and in accordance with our Service Manual. This includes checking and flushing your dispersal system which is a critical maintenance task. Note that repairs of your Biolytix tank or dispersal system if outside of warranty are not included in a typical service fee and if required will be at an additional cost

You must never attempt to maintain or repair your BioPod or its dispersal system yourself or otherwise tamper with them. Not only would this void its warranty, tampering with your system could also result in environmental and health risks.

# Biolytix Wastewater Systems

## Owner's Manual

### Normal Up-keep

The following recommendations will ensure that your BioPod stays in good condition and provides safe treatment of your wastewater:

- Protect both the BioPod and the dispersal system from vehicle traffic, including livestock. Do not drive over your BioPod with ride-on mowers.
- Avoid digging where your dispersal system is located. Doing so may damage its pipes.
- Deep-rooting trees or shrubs should not be grown in or near your BioPod and dispersal area. Contact your local council for advice on suitable plants.
- Where installed, surface water diversion drains and mounds upslope of and around the BioPod and the dispersal system must be kept clean. They protect your system from stormwater runoff and must not be altered or removed.
- Landscaping must not result in stormwater pooling on or around the BioPod or the dispersal system.
- A thin layer of coarse mulch spread over the tank lid helps your BioPod blend into your landscaping and keeps it cool in hot weather. However, you must not cover the access hatch in the tank lid, and the mulch must not be deeper than 100 mm around the edge of the lid. Also, it must not impair drainage of stormwater runoff away from the tank.
- The tank must not be buried. The access hatch and control box must remain accessible
- Dispersal areas should be mowed and plants maintained regularly

You are responsible for keeping your BioPod in good working order. If you encounter any of the following scenarios, please call Biolytix Customer Support as soon as possible:

- The dispersal area is wet or soggy with wastewater ponding on the surface.
- You notice a strong or unusual odours coming from the BioPod.
- Your toilets drain slowly.
- There are loud and unusual noises from the BioPod.
- If you have any other reason to believe your system is malfunctioning.

# Biolytix Wastewater Systems

## Owner's Manual



### Alarms

Your system is equipped as standard with an audible and visual alarm both located on the Biolytix tank. The visual alarm is a flashing red bulb which should be located on the tank in a position that can be viewed from the house. If this is not the case please contact your installer to discuss relocating the alarm light or other alarm options.

The audible alarm has a mute switch located on the control box. If you mute the alarm you must contact your Biolytix service technician to resolve the alarm condition.

There is also an option to have an alarm panel installed inside the house. This alarm panel has a mute switch and a 24 hour reset function on the mute switch. If the alarm is muted but not resolved the alarm will sound 24 hours later.



# BIOLYTIX™



**Need a hand? We're here to help.**

**0800 628 356**

**[www.waterflow.co.nz](http://www.waterflow.co.nz)**

**[sales@waterflow.co.nz](mailto:sales@waterflow.co.nz)**

