



BioPod

Australasia's Most Awarded Wastewater System

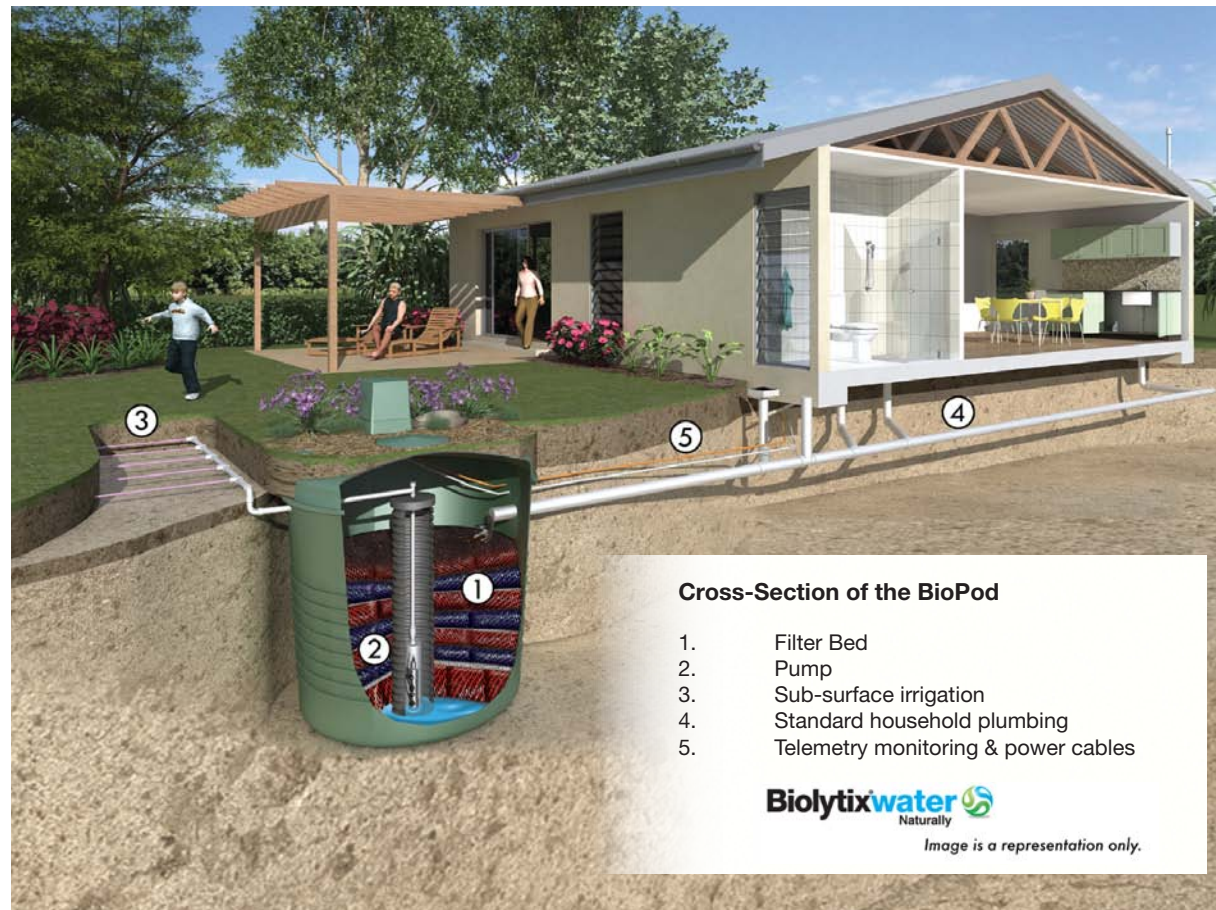


works with nature, not against it
... so you benefit



The BioPod is Australasia's most awarded sewage system ...because it is powered by nature, not machinery.

Instead of using expensive-to-run machinery, the BioPod uses worms and other organisms to treat all household sewage and wastewater. This "ecosystem in a tank" quickly turns it into safe irrigation water for the garden.



Like solar power, the BioPod harnesses the power of nature, leading the way towards an energy-wise future.

The BioPod works with nature, doesn't fight it ... so you save

1. The "ecosystem in a tank" treats the waste: no expensive aerators to run, fix and replace
2. Cuts electricity use by around 95%: reducing CO₂ emissions by about 1 tonne p.a.
3. No routine pump-outs: save sludge transport and disposal costs
4. Only one annual check-up: most others need 3 - 4 services

The BioPod does more ... so you do less

5. The only treatment system approved to treat household food waste
6. No need to space showers and washing: adapts to your family needs
7. You can't hear it: no droning aerators up to 16 hours every day
8. Odourless: no septic stage; no smells from vent pipes

The BioPod is the most environmentally responsible ... so you are too

9. Negligible methane emitted: septic systems emit large amounts, 21 times as potent as CO₂
10. Chemical-free treatment: no chlorine continually disposed in your garden
11. The most compact treatment system: less to transport; less disruption to your garden
12. Safe and waterwise irrigation: doesn't potentially spray pathogens around or waste water

How it works



Inside the BioPod

The Biolytix Patent ... turns the problem into the solution

Biolytix Water own the patent for the Biolytic Filtration Process. This process cleverly turns the problem (the solid waste) into the solution (the humus that cleanses the wastewater as it trickles through it).

Employs Nature To Do The Work

Why use high-energy machines when nature can do the work for us?

The BioPod is engineered to meet the needs of billions of hard-working organisms:

- stable humus to live in
- food as they would naturally find it, and
- plenty of oxygen.

With these ideal living conditions, the organisms can focus on what they do best – continually processing the solid waste into humus.

There are also no large moving parts to service and repair – the organisms simply breed and replenish themselves.

Harnesses the Energy in Your Waste

Like solar power, Biolytix is leading the way in using nature's energy. The BioPod harnesses the energy in the waste (including the sewage, toilet paper and food waste) to feed the organisms that break down the waste.

So rather than relying on high-energy machines – it uses the energy in your waste to operate.

As Robust As Nature

The BioPod is robust because it is based on the strategies of nature:

Nature and the BioPod use only the energy they need.

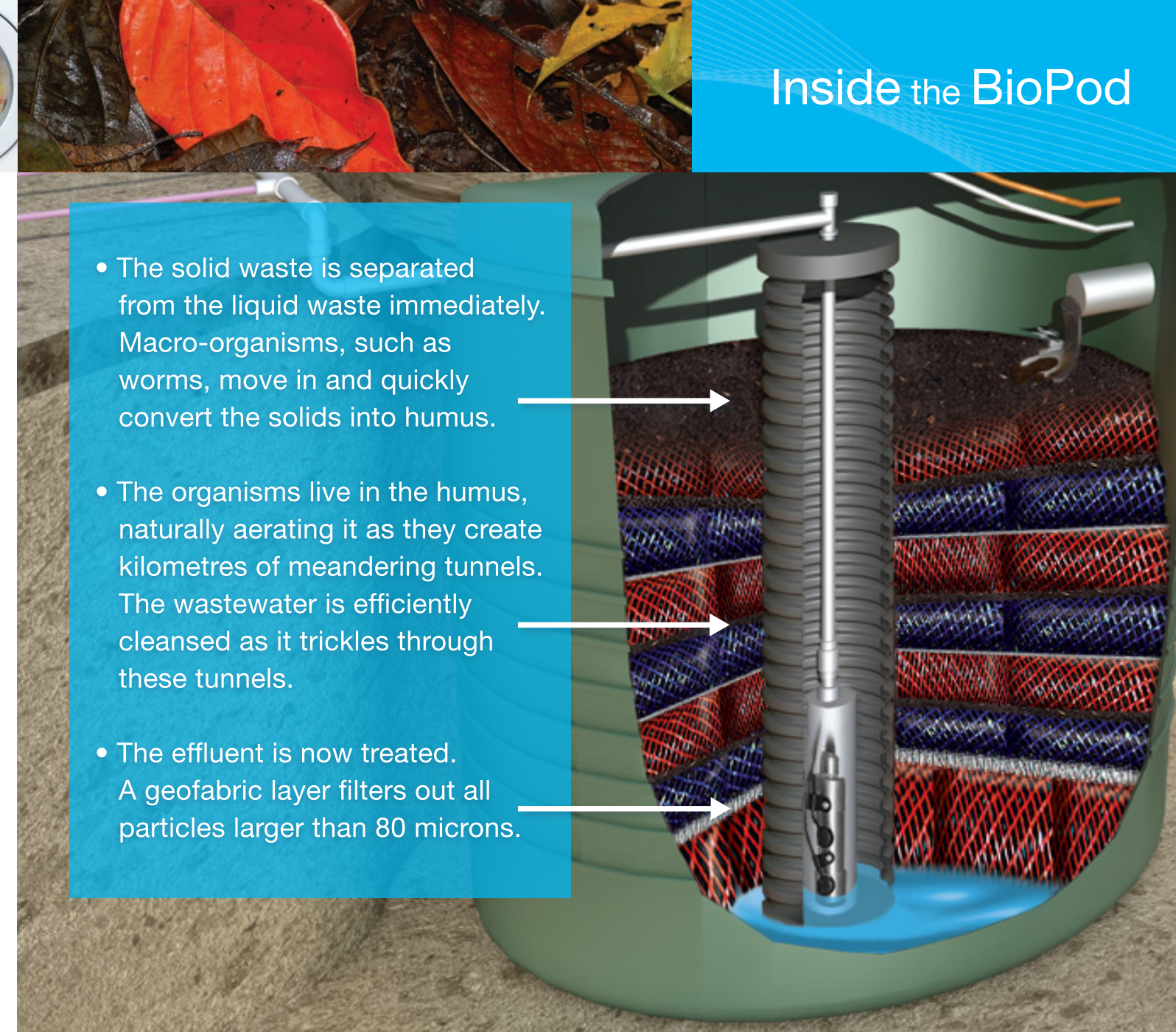
Nature and the BioPod bank on diversity.

Nature and the BioPod recycle everything – nothing wasted.

From Biomimicry – Innovation Inspired By Nature:

“After 3.8 billion years of evolution nature has learned. What works. What is appropriate. What lasts.”

- The solid waste is separated from the liquid waste immediately. Macro-organisms, such as worms, move in and quickly convert the solids into humus.
- The organisms live in the humus, naturally aerating it as they create kilometres of meandering tunnels. The wastewater is efficiently cleansed as it trickles through these tunnels.
- The effluent is now treated. A geofabric layer filters out all particles larger than 80 microns.



“It may be doubted whether there are many other animals which have played so important a part in the history of the world as the worm” **Charles Darwin**



Biolytix carefully researched the reasons for the problems and high operating and maintenance costs of mechanically aerated sewage systems. Then, rather than working to marginally improve on their inefficiency, we spent millions of dollars to develop a totally new way of treating wastewater.

The result is the BioPod “ecosystem in a tank”. From the outset, the BioPod was engineered to be robust and built to last. It avoids the mechanical complexity and problems of conventional systems, while significantly reducing the on-going costs.

The BioPod

The BioPod treats all household sewage and grey water, ready for re-use as sub-surface garden irrigation.

The BioPod is contained in a single, compact tank, which is a 3000 litre polymer tank (1.88m diameter by 2.06m high). It is the most compact biological sewage treatment system in the world, that we know of – making it easier to transport, less disruptive to install and unobtrusive.

Inside the BioPod, the layered aerobic filter bed is engineered to house the organisms that quickly convert sewage into humus. Macro-organisms, including worms, ensure the filter bed is naturally aerated, so that there is none of the smell associated with septic systems, and emissions of methane are negligible.

The ecosystem enables the humus to be maintained indefinitely, so the system only needs one annual check-up (most other sewage systems require up to 4 services per year).

The BioPod Irrigation Kit

The BioPod Irrigation Kit is the safest and most waterwise irrigation option. It is installed below ground, ensuring your family and pets are safe and that far less valuable water is lost through spray drift and evaporation. It is also less intrusive and reduces your ongoing costs.

By irrigating below ground you don’t need to continually dose your garden with expensive and high-maintenance chlorine.

Biolytix is proud to be working with Netafim, the world-leader in drip irrigation, to offer what we believe is the most environmentally-friendly wastewater solution.

For peace of mind...

Alarms - choice of two

The BioPod is reliable and is continually and automatically monitored to verify its operation.

Audiovisual Alarm

This is our most popular alarm. A visual and audio signal will let you know of any irregularities within your system.

Telemetry alarm

This alarm operates in a similar manner to our audiovisual alarm, except that in the event of irregularities within your system, it alerts your assigned service person directly.

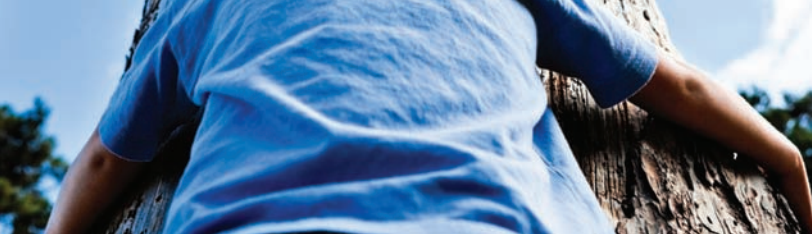
Care Package

Biolytix commitment to product support is highlighted by the benefits offered in our Care Package, including our Service Contract.

Our comprehensive Service Contract provides our clients with comfort and peace of mind as we offer an extended guarantee on the performance of the system for the period of the Service Contract. You can renew your Service Contract annually and take it for up to 20 years.

Under the Service Contract, Biolytix will ensure that your system is consistently performing to specifications by providing full service options, including:

1. Household chemical compliance check
2. BioPod service and inspection
3. Irrigation field service



Why we are passionate about sub-surface irrigation

1. Grows more with less

Sub-surface irrigation (below ground irrigation) is installed at a minimum of 100mm under the surface of your soil. It targets the root zone, where water is needed most. Far less valuable water is lost through evaporation, spray drift and run-off.

2. Safeguards your family and pets

Sub-surface irrigation is your safest option. Even though the treated water from the BioPod exceeds Australian Standards, it is safest to keep it in the soil. The soil is an effective barrier to human contact with effluent. It eliminates the hygiene risks associated with pathogens in spray and puddles from above-ground irrigation.

As the risk from above-ground irrigation can be high, disinfection is required. If the disinfection system fails, or if the service intervals are not observed, the environmental and hygiene risks can be high. Biolytix is not prepared to take that risk with your family's health.

3. Less intrusive and reduced on-going costs

The irrigation is out of sight and out of mind. No need to mow around sprinklers and pipes, as these are not exposed and can't be damaged by the mower.

Above-ground irrigation has higher ongoing costs. If it relies on chlorine, it will require continual topping up. If it relies on membranes or UV, there are high energy costs involved.

4. More versatile

Sub-surface irrigation is better suited to steep slopes. In contrast, above ground spray irrigation can cause soil erosion and run off, and is more likely to result in uneven distribution where used on slopes.

5. Best for the environment

By irrigating below ground you don't need to continually dose with chlorine. Chlorine is a potentially toxic chemical that can negatively affect the natural soil ecology.

Some companies use UV disinfection to irrigate above ground. UV consumes significant amounts of energy, resulting in a greatly increased carbon footprint.

Biolytix is the most environmentally responsible ... so you are too

Of the 16 competitors we researched, the BioPod uses 95% less energy than all of them.

This saves you more than 1000kWh per year ... that's about 1 tonne of CO₂ (equivalent to watching TV 10 hours each day).

And in financial terms, you save around \$190 each year ... which will only get higher as energy prices rise.

Purchasing a BioPod may be the most important household item you can buy to reduce your carbon footprint. It is more significant than buying an energy efficient fridge or washing machine (although they all help).

Reduce Your Energy Use

The BioPod.....uses around 0.12kWh per day to treat sewage
Mechanically aerated systems.....use around 2.5-10kWh per day to treat sewage

That's 20-80 times more energy.

The only energy the BioPod uses for treatment is a tiny air pump to aerate the sump (about the same size as a fish-tank pump). Its energy consumption does not vary with the volume of wastewater treated.

In contrast, mechanically aerated systems must pump oxygen into the water for up to 16 hours per day to keep organisms alive ... that is costly for the environment.

Cut Your Methane Emissions

The BioPod is a fully aerobic system, generating negligible methane. (Proven by a university study.)

In contrast, anaerobic systems, such as septic tanks, generate significant volumes of methane. The greenhouse gas methane is 21 times more potent than carbon dioxide.

“It has a small eco-footprint as it uses no chlorine and hardly any electricity. I like the idea that little animals are working away to change my waste into clean water. I reckon it is the no waste, waste treatment system.”

Maureen Lewis
Deakin ACT
Biolytix Customer





The BioPod VERSUS septic tanks

“I am happy to recommend the Biolytix BioPod. Prior to converting to Biolytix, we had a septic tank and grease trap to deal with the waste. The odours from the septic and grease trap were very unpleasant and the maintenance was costly and ongoing. Since having the Biolytix system installed, all odours have been eliminated and our garden is flourishing on the filtered waste water!”

Liz Johnson
Brisbane QLD
Biolytix Customer

The BioPod	Most septic tanks
Featuring state-of-the-art technology, the BioPod is leading the way in reliable, high-quality wastewater treatment. Many septic owners are now converting over to the BioPod	We believe septic tanks will become outdated technology. A study of “The performance of on-site treatment and disposal systems in Maroochy Shire” reported that 67% of septic systems were broken or had operational problems*
No smell – aerobic decomposition does not produce odorous gases, and the humus produced absorbs any odour	Can smell. The septic uses anaerobic digestion, which produces bio-gas. Bio-gas includes the odorous Hydrogen Sulphide (rotten egg gas). Heavy loading of a septic system can result in these odours escaping from the system
No regular pump-outs needed	May need regular pump-outs
Effluent suitable for sub-surface irrigation	The effluent is not suitable for irrigation – it must go to trenches. One of the major problems of trenches is when the effluent fails to soak away. This risks polluting the surrounding area with sewage
Negligible methane or hydrogen sulphide produced	Methane and hydrogen sulphide are produced. Methane is a potent greenhouse gas and Hydrogen Sulphide has an offensive odour
No grease trap required	Often needs a grease trap

*Study done by Jelliffe Environmental Pty Ltd, 1994.

The BioPod VERSUS aerated systems

The BioPod	Most mechanically aerated systems
Uses nature to do the work - this cuts energy use around 95%	Relies on high-energy mechanical aerators to work up to 16 hours per day
Needs only 1 service per year (or 7 monthly in Tasmania)	Need to be serviced 4 times per year
Runs quietly – you can’t hear it	Noisy, annoying blowers drone up to 16 hrs/day
Its natural treatment does not rely on chemicals	Rely on chlorine for treatment – which they continually dose into the garden
Very few moving parts, which means it is less likely to break down	Many mechanical moving parts, which can be expensive to repair and replace
No odour – it’s quickly absorbed by the humus	They can smell after a high loading - as they have a septic stage
Smallest tank we know of - easy to transport and install	Tank/s can be large and dominate the garden
Handles peaks and troughs in loading	Can fail after absences or during a party
Ideal for solar power	Not suitable for solar power
Achieved Australian Standards Approval to be used in conjunction with an In-Sink-Erator	Have not been approved for handling kitchen food waste via an In-Sink-Erator
The garden is carefully irrigated below ground – making it safe for people and pets	Pathogens are potentially sprayed around

“We considered all the options for household waste-water treatment systems & finally chose Biolytix because we found that the BioPod had the least moving parts, lowest energy usage and fewer compulsory services. I am confident that we made the correct decision. We have experienced absolutely no problems at all with any part of the system and have the advantage of the use of a garbage gobbler in our kitchen.”

Andrew Fearnley
Tolga NQ
Biolytix Customer



The BioPod VERSUS sand filters

“The Biolytix system is so neat, tidy, unobtrusive and silent, you wouldn’t even know it was there. I would recommend your installer and your product to anyone. We’re looking forward to many years of Biolytix use!”

Wayne & Betina Elliott
Oaklands Junction VIC
Biolytix Customer

The BioPod	Most sand filters
The BioPod is 2.8m ² - the most compact biological system in the world that we know of. The small treatment tank is easy to transport and install and hides neatly in the garden	Sand filters take up a lot of space. They are 10 times larger than a BioPod – around 26m ² . They generally consist of: <ul style="list-style-type: none">Two septic tanksA sand bed – 10m x 4mA collection tank
No septic stage	Rely on septic tanks for their first treatment stage – and are therefore vulnerable to the problems associated with septs.
No odour	The primary septic stage can generate smells after a high loading; chlorine smells can occur during irrigation
No large beds to replace	The large sand beds may need replacing within 5-8 years – a big task
Handles peaks and troughs in loading	Can fail after absences or during a party as the system is limited by the functional capacity of the septic tank
Can take kitchen scraps - approved for use with an In-Sink-Erator	Cannot take food waste
No regular pump-outs required	Sludge pump-outs of septic tank component and sand beds can be required
Negligible methane produced	The septic stage produces significant methane

Sub-surface Irrigation VERSUS spray irrigation

BioPod sub-surface irrigation	Surface spray irrigation
Most environmentally responsible	Less environmentally responsible
No risk of spray drift	Significant risk of spray drift
Minimal evaporation losses	High evaporation losses
Nutrients are taken directly to the root zone	Forces the water to move through the soil quickly, losing its moistening benefits - potentially causing soil clogging and barriers to plant growth
Out of the way	Sprinklers and hoses can be cut by the mower
Sub-surface irrigation is designed to suit site-specific applications, ensuring even distribution	Water may pond or channel
Low risk of discharge to surface run-off or deep leaching. Suitable for use on steep slopes	Greater risk of run-off to surface water or storm water drains and higher risk of leaching. Unsuitable for use on steep slopes
No disinfection required	Effluent disinfection is often required, using: <ul style="list-style-type: none">Chlorine, which ensures only partial disinfection and can create trihalomethane (THM), a potentially dangerous compoundUV filtration, which is very high in energy consumptionMembrane technology - which uses a lot of electricity and is very expensive to replace (av. life 3 years)
Safe - no risk of pathogens being sprayed around	Subject to failure, risking exposing the family to dangerous pathogens

“We had Biolytix installed in Dec 2007 and have been extremely happy with it. It’s bought peace of mind knowing we’re not putting polluted run off into the surrounding bush and knowing our kids aren’t playing in dangerous sewage run off is immensely reassuring. We’ve also seen the physical results in the landscape - no more boggy areas the old system produced. We’re also happy knowing that worms are disposing of our waste in this fabulous system and take every opportunity to show it off.”

Suzanne Roth
Blackheath NSW
Biolytix Customer



5 steps to buy the BioPod

“I first saw Biolytix featured on the **New Inventors** and was intrigued by the use of **worms** to turn **wastewater into irrigation water**. As water is our scarcest resource out in the country, I was really interested in this product. So after checking out the website and speaking with the sales reps, who were very knowledgeable and helpful, I decided to buy. Customer service was **excellent**. The payment procedures worked well and the delivery and installation went **smoothly**. All in all, it seems to be a professionally run operation and I would count myself a **happy customer**.”

John & Kerry Rooney,
Kerry Rooney - Director
Clean Energy and Environment,
Canberra

1. Design your solution

Our team of qualified Sales Consultants will design the best wastewater solution for your situation and find the right product for you.

In most areas of Australia and New Zealand it is a legal requirement to have a Site and Soil Evaluation before installing a wastewater system. This ensures that your wastewater solution (including irrigation) is perfect for your site. This evaluation is carried out by a Geotechnical Engineer (Geotech) and includes a soil test to assist in the design of your irrigation. To help you, we can recommend a qualified geotech in your area.

2. Receive your obligation-free quote

Once we have provided you with your Product Assessment we can supply you with a firm Product Quote. We guarantee to hold all prices on your quote for 30 days or as otherwise specified.

3. Secure your approvals

Most local authorities (Councils) require householders to secure an approval before they install a sewage and wastewater treatment system. We are happy to help you with this.

4. Place your order

You place your order by paying your first installment. All payment details are on your quote.

5. Install Your BioPod

Your Biolytix Consultant or Installer will make arrangements with you for the installation of your BioPod, and will also co-ordinate delivery details with you.

We highly recommend that your BioPod be installed by an accredited Biolytix installation partner to ensure that its performance meets and exceeds your expectations.

Our Awards

Biolytix Water has won 10 major awards for engineering, the environment, innovation and “raising the bar” in business:

- 1 **The Asian Innovation Award**
Biolytix was chosen ahead of 267 companies, including IBM, Microsoft and Shell for “its potential to solve world problems”
- 2 **Global Eco-Tech Award**
World Expo Japan for “contributing significantly to the resolution of global environmental problems”
- 3 **The Wall Street Journal Global Environmental Innovation Award Runner-up**
for “technological breakthrough”
- 4 **The Clunies Ross Award**
Australia’s Most Prestigious Science Innovation Award - from the Australian Academy of Technological Sciences and Engineering
- 5 **EPA Sustainable Industry Award**
for “the best and most innovative sustainability practices in business and industry”
- 6 **Two Australian and New Zealand Innovation Awards**
for People’s Choice and Building Products
- 7 **National Innovation Hero Award**
for “outstanding innovation in engineering technology...people who create great benefit to Australia”
- 8 **National Green Plumber’s Award**
- 9 **A Premier of Queensland’s Smart Business Award**
for “raising the bar”
- 10 **Member of the Year Award**
The Australian Technology Showcase QLD

Biolytix[®]water

Naturally



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After 2.1 billion years of Research and Development
... nature has the answer