

# ON-SITE WASTEWATER MANAGEMENT SYSTEM INFORMATION PACKAGE

The *Building Act 2016* and the *Local Government Act 1993* require that wastewater (which includes both black water and grey water) be collected, treated and disposed of in a manner designed to prevent risk to public health. For those properties that do not have access to sewer infrastructure an on-site wastewater management system (OWMS) is necessary.

Every property is different and therefore a comprehensive site assessment is necessary to determine the best type of OWMS for your property. A suitably qualified designer must carry out the assessment and come up with an appropriate OWMS in accordance with the relevant Australian/New Zealand Standard AS/NZS 1547:2012 On-site domestic wastewater management and National Construction Code (NCC).

In general on-site wastewater management systems consist of:

- 1. Wastewater treatment unit/system: The wastewater treatment unit treats the initial waste. This can be done at a primary level, as in the case of septic tanks, and involves anaerobic bacteria. Wastewater can also be treated to a secondary level, with additional treatment that utilises, for example, aerobic bacteria and chlorine disinfection in aerated wastewater treatment systems (AWTS). Secondary treated wastewater is generally of higher quality and suitable for irrigation.
- 2. Land Application Systems: A land application system refers to the way primary or secondary treated wastewater is disposed of on the property. There are different land application systems such as trenches and beds, evapotranspiration-absorption systems, mound systems and irrigation systems.

Under the *Building Act 2016* a plumbing permit is required to install an OWMS. The approval process is outlined on the next page.

# PROCESS FOR APPROVAL FOR AN ON-SITE WASTEWATER MANAGEMENT SYSTEM

The process can be broken down into a few steps grouped into three areas:

#### A. DESIGN & APPLICATION

An onsite wastewater management system needs to be suitable for the site and for the intended use. System designers will assess not only your use of water and therefore the waste output, but also factor into consideration the topography of the land, soil type and quality, and weather. There are many systems available and designers will use lots of information to ascertain the best type of system for you.

- 1. Engage the services of a system designer to undertake a site assessment and complete a design report.
- 2. Submit an application to Council for a Plumbing Permit (Form 3) and attach the wastewater design report provided by the system designer. An application fee must also be paid.

#### **B. WORKS**

Once you have obtained approval from Council (i.e. received your Plumbing Permit) you can:

- 3. Engage the services of a suitably qualified plumber and other professionals as needed to install the system.
- 4. Council's Environmental Health Officer must be called to inspect the plumbing work prior to it being covered/buried.

## **C. COMPLETION**

Upon completion of all works relating to the Plumbing Permit:

5. Submit completion of works documentation to Council which includes Form 71B and As Constructed Plan from the Plumber and certification from the system designer (if requested). Environmental Health Officer inspects completed work to ensure it is compliant.

Once all the required documentation has been submitted and plumbing work passed inspection:

6. Council issues Certificate of Completion for Plumbing works.

#### **ACCREDITED SYSTEM DESIGNERS**

COMPANY	PHONE/EMAIL
GeoTon Pty Ltd	03 6326 5001
	admin@geoton.com.au
JD Consulting (James Doherty)	0457469617
	jldoherty581@bigpond.com
GEO-Environmental Solutions	03 6223 1839
	office@geosolutions.net.au
Strata Geoscience &	0413 545 358
Environmental	sven@strataconsulting.com.au
Environmental Service & Design	03 6431 2999

#### **DISCLAIMER**

Dorset Council does not endorse nor recommend any particular person/company included on the above list. The information is provided to assist developers to identify those having previous experience with the preparation of site and soil evaluation reports and the design of onsite wastewater management systems. Others not included on this list having appropriate skills and knowledge may also submit reports, and are also invited to contact Council if they wish to be added to the above list.

#### ON-SITE WASTEWATER MANAGEMENT SYSTEM MAINTENANCE

There are a number of things you can do to maintain a healthy OWMS.

**Avoid** or minimise use of bleach and other cleaning agents, detergents, degreasers, cosmetics, lotions, pesticides and herbicides. Even small amounts of these chemicals can upset chemical and biological activity within the system.

**Do not** place disposable nappies, tissues, sanitary napkins, tampons, paper towels, plastics, cigarette butts, bones and coffee grinds into the system. These materials can potentially overload the system or cause pump failure.

**Do not** use the treated water to water vegetable gardens, fill swimming pools or for any other domestic purpose.

**Do not** put fats and oils down drains and sinks.

**Do** practice water conservation to avoid overloading the system.

**Do** ensure that the system receives servicing following the specified regime.

**Do** monitor your system for signs of ill-health including: unusual or foul odours, leaks or overflow from the tank, pooling of wastes or liquid in and around the disposal area. Contact your plumber if you think there is a problem with your system.

**Do** use products that are labelled as biodegradable or septic-safe.

### **Desludging / pump out**

A septic tank allows solids to settle on the bottom of the tank forming a sludge layer, whilst fats, oils, hair and other 'floatable' materials form a "scum" layer on the surface of the water in the tank. The liquid layer that forms between the scum and sludge overflows and discharges into a trench in the ground, usually called an absorption trench.

Over time, the sludge and scum layers build up and the tank will need to be pumped out. The frequency of pumping is dependent on the level of use, input into the system and climatic conditions however it is generally recommended to occur every 3 years.

#### **AWTS** maintenance

The owner of a property where an AWTS is installed must maintain a current service agreement with a person who is qualified and accredited to service and maintain the AWTS. An AWTS must be serviced in accordance with its certificate of accreditation and a fee is payable for this service. The service agent sets the fee and what is covered by the agreement.

In addition to the maintenance agreement, the owner is required to effectively maintain the disposal area. Generally accepted methods of disposal are:

- Surface irrigation: consists of sprays or drippers located around mulched or barked areas planted out with suitable vegetation that will tolerate wet and high salt conditions. Owner maintenance of these areas will consist of regular weeding, replacement of plants as necessary and maintaining a 150mm minimum depth of mulch or bark.
- Subsurface irrigation: consists of special piping that is installed approximately 150mm under the ground and can be used to water garden beds or grassed areas. If grassed areas are used then maintenance entails moving of the grass.
- A combination of surface and sub-surface irrigation areas may be used but they
  will need to be tapped to allow for the different pressure requirements of the
  system components.

If your OWMS is not operating correctly, contact a licenced plumber or Council's Environmental Health Officer for advice.

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