FACT SHEET 1

WHAT IS AN ON-SITE SEWAGE MANAGEMENT SYSTEM?

An On-site Sewage Management System (OSMS) is a domestic wastewater management system that receives wastewater generated by household activities. Types of household wastewater includes blackwater, which is wastewater generated from toilets, and greywater, which is wastewater generated from hand wash sinks, kitchen sinks, showers and laundries. Where a dwelling cannot be connected to the Council's centralised sewer network, an OSMS is required.

The most common OSMS in the Wagga area are septic tanks (conventional systems), Aerated Wastewater Treatment Systems (AWTS) and wet composting toilets such as worm farms.

An OSMS stores, treats and disposes of the wastewater onsite by way of a disposal system. The most common disposal systems for conventional systems include absorption trenches or evapotranspiration beds. AWTS disposal methods include surface or subsurface irrigation lines. Due to the additional treatment processes, only AWTS can dispose of wastewater via irrigation.

When operating affectively, OSMS provide storage, treatment and disposal of household wastewater in a way that ensures there is minimal impact on public health and the environment.

For further information on disposal methods, please refer to *Fact Sheet 4 – Design & Construction of Disposal Areas for On-Site Sewage Management Systems*.

City of Wagga Wagga

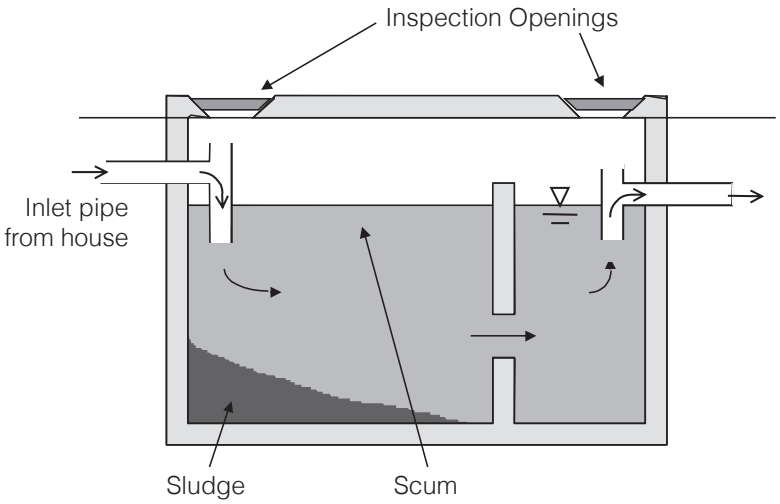
HOW IT **WORKS**

CONVENTIONAL SYSTEMS

All wastewater from the household enters the septic tank. The solids settle to the bottom of the tank and form a sludge layer. The fats and greases collect at the surface, forming a scum layer. Micro-organisms slowly break down the matter in both the scum and sludge layers. Any material that cannot be broken down will gradually build up. As a result the tank needs to be pumped out periodically by an accredited waste service provider.

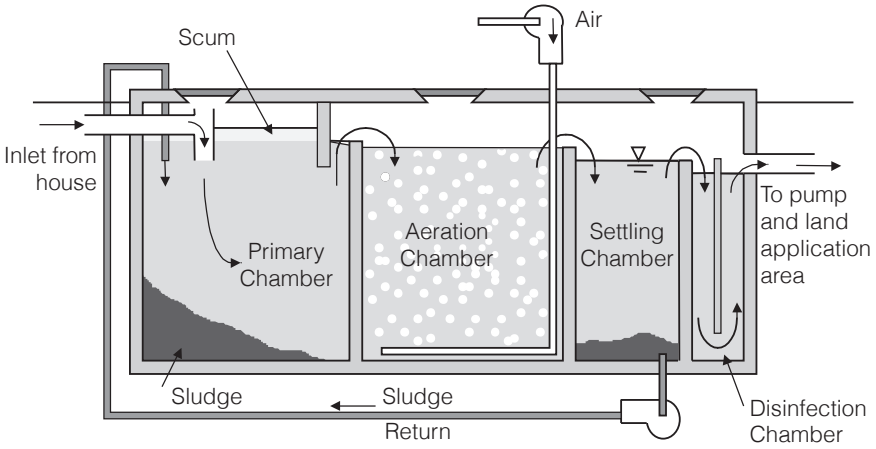
The wastewater then flows, or is pumped, to a sub-soil bed or sub-soil trench for disposal. The wastewater is distributed along the length of the bed or trench through a system of pipes.

Eventually, the wastewater is absorbed by the soil and by plant roots around the disposal area.



AWTS

An AWTS consists of one or two wastewater tanks, which contain a series of chambers. Wastewater enters the primary chamber where solids settle to the bottom to form a sludge layer. The scum layer, containing fats and greases, collects at the top of the chamber. The clarified wastewater flows from between the two layers to the aeration chamber. In the aeration chamber, the wastewater is aerated and broken down further by biological activity. The wastewater then passes through to the settlement chamber where any solids that may still be present are separated/settled. The wastewater is finally disinfected in a chlorination or UV chamber and irrigated through fixed wastewater (lilac) hoses across lawns or gardens either via a surface or drip irrigation system.



AWTS must be regularly serviced and maintained as per their specifications in order to operate correctly.

FURTHER INFORMATION

For further information visit
www.wagga.nsw.gov.au/publichealth
or contact an Environmental Health Officer
on **1300 292 442**.