

# ON-SITE SEWERAGE TREATMENT AND GREYWATER

Plumbing and Drainage Act 2018

## ON-SITE SEWERAGE TREATMENT

A large number of properties in the Townsville City Council region are not connected to a sewerage system network. The method and/or disposal of all wastewater generated on these properties must have Council approval.

### On-site sewerage facilities

An on-site sewerage facility is any system that stores, treats and disposes of household wastewater on the property. Poorly sited or maintained on-site sewerage facilities can impact public health and the environment. The owner of the facility is responsible for ensuring the system is maintained and functioning properly.

The disposal of effluent (treated sewage) may occur:

- » on the property in a designated area (called a land application area)
- » off the premises by a common effluent drainage system
- » off the premises by collection from a holding tank by a Council-approved liquid waste carrier.

The appropriate state government agency is responsible for assessment and approval of facilities designed to service over 20 equivalent persons.

### Types of on-site sewerage systems

Treatment systems for household wastewater include:

- » conventional domestic sewage treatment plants (secondary treatment or better)
- » aerated/aerobic sand filter system
- » septic tanks (primary treatment)
- » all-waste septic tank (all household wastewater)
- » black water septic tank (toilet, urinal and bidet wastewater only)
- » greywater septic tank (sullage wastewater only)
- » composting systems
- » dry vault system (toilet waste only – waterless)
- » wet system (all household wastewater – may be considered a domestic sewage treatment plant)
- » holding tank
- » removal from the premises by collection from a holding tank by a Council-approved liquid waste carrier
- » greywater treatment/diversion facility.

Although Council approves the installation of an on-site sewerage facility, the treatment system (plant or device) will require product approval from a state government department or demonstrated compliance with a manufacturing code or Australian Standard.

### Types of land application areas

The designated area on a property for application of the treated effluent is referred to as a land application area and includes:

- » surface irrigation (spray above ground)
- » sub-surface irrigation (drippers in shallow trench)
- » covered surface irrigation (drippers on natural ground covered by mulch, woodchip, etc.)
- » Evapo-transpiration-absorption trench/bed/mound
- » trench or bed (embodies the principles of evaporation, transpiration and absorption)
- » elevated sand mound (specially constructed on natural ground level).

The type of land application area will depend on the level of treatment the wastewater has received prior to disposal.

### USEFUL GUIDELINES

*SC6.4.3.10 On-site sewerage facilities* is a planning scheme policy that sets out Council's requirements in more detail. The *Guidelines for on-site sewerage facilities for non-sewered properties* also contain useful information on the application process.

Visit Council's website to review these documents.

### GREYWATER

Greywater is waste water from the bath, shower, hand basin and laundry which can be diverted for reuse on lawns and gardens. Kitchen greywater is not suitable for reuse, as grease and oil can clog irrigation systems and build up on soil surfaces.

Under the state government's *Plumbing and Drainage Act 2018*, residents in sewered areas may use greywater by means of:

- » manual bucketing
- » connecting a flexible hose to a washing machine outlet
- » greywater diversion devices (with Council approval) and treatment plants by licensed plumbers, connected to an irrigation hose
- » surface or sub-surface system (with Council approval).

Care should be taken if reusing greywater because of its:

- » potential health risks to humans
- » potential for environmental damage to soils, ground water, and waterways caused by increased nutrient and chemical levels.

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## Council approval for greywater diversion and treatment systems

You will need a Council permit before installing either:

- » a greywater diversion device, which diverts greywater from the bath, shower, hand basin and/or laundry to an irrigation hose

Note: Untreated greywater cannot be stored.

- » a greywater treatment system, which collects the greywater and treats it to a high standard for reuse as garden irrigation.

You don't need a permit for manual bucketing or connection of a flexible hose to a washing machine outlet.

## MORE INFORMATION

For further information please contact the Assets and Hydraulics Unit on (07) 4417 5299 or email [TCHydraulics@townsville.qld.gov.au](mailto:TCHydraulics@townsville.qld.gov.au).