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Preventing Inland and Coastal Water Pollution: Septic Tank and Small Package Treatment advice for householders and businesses

If your property is not connected to a public foul sewer, then, like much of rural Wales, it is likely you are connected to a private sewerage system. This might be a small package treatment plant or a septic tank, or a cesspit /cesspool. If any of these systems are **not maintained or emptied regularly**, they can become a **health hazard** to you and your family and pollute our river and marine environment. Your efforts can help prevent excessive amounts of Nitrogen, Phosphorus, oils, chemicals and other pollutants invisibly entering waterways.

How do private sewerage systems operate?

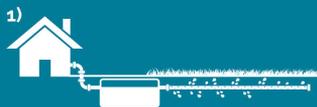
1) Septic Tanks: these are underground chambers that allow bacteria to safely break down the waste. Solid material sinks to the bottom forming "sludge", whereas the liquid flows into a drainage field where more bacteria treats it as it soaks into the ground. It is very important that these systems are not overloaded so that they do not discharge into watercourses!

2) Small Sewage Treatment Plants: These work in a similar way to septic tanks; however, mechanical parts aerate the bacteria. This makes them more effective than traditional septic tanks, allowing them to discharge into other soakaways and flowing water.

3) Cess Pit: This is purely a pit to collect and store waste underground. For this reason, they must be emptied monthly by a licenced contractor. Regular inspection for leaks are also critical to their safe functioning.

Regardless of the system, when not working or maintained properly, each can release raw sewage leading to pollution of water in ground, rivers, streams and sea.

It is the Owners' responsibility by law to ensure the system works efficiently. Records of maintenance dating back 5 years must be kept.



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Best Practice Guidelines

1) Get to know your system

Where is your tank? A metal or concrete lid should be visible? This is the usually downhill from the property. Is it shared? Ask your neighbours if this is so. Where does it discharge? Locate your soakaway.

2) Check your system

Check that the soakaway isn't waterlogged and that there are no pools of water running into ditches or watercourses. Effluent inside the chamber should be clear or pale and odour free

3) Keep the balance

Products that are marked as 'suitable for septic tanks' and 'environmentally friendly' will help maintain the healthy bacteria in your tank. Avoid chemicals such as bleach, disinfectants and antibacterial products. These kill the healthy bacteria that treat your effluent. Domestic sewage systems cannot remove phosphates, and these can contribute to eutrophication in water bodies. This is becoming increasingly frequent during drought summers. We recommend using phosphate-free products!

4) Use your bin not the sink

Household waste can block or damage your system and should be disposed of properly. Never let the following do down the drain: Kitchen towels, wet wipes, cotton buds, nappies, sanitary items, oils, fat, grease, paints, solvents, medications or chemicals. All of these will damage, clog and compromise your systems function, even killing the bacteria that breaks down your waste. Use a kitchen strainer to prevent food waste filling up your tank and dispose of hazardous liquids at waste disposal sites.

ONLY FLUSH PEE, PAPER AND POOP

5) Don't over water

Large volumes of water can overwhelm your tank, flushing out untreated sewerage before the bacterial process has had a chance to take place. Ensure that roof gutters are not connected to your system and avoid running dishwashers and washing machines multiple times a day, which can lead to overloading.

Complying with the law

1) Follow the law

Any activity involving releasing fluid to the ground or a water course requires an environmental permit. In most instances, septic tanks and small treatment plants are exempt from the need to obtain a permit. You must, however, register your septic tank or small treatment plant as being exempt with Natural Resources Wales.



<https://naturalresources.wales/permits-and-permissions/water-discharges-and-septic-tanks/septic-tanks-and-private-sewage-systems/?lang=en>

2) Fix faults

Discoloured effluent, odours, foam, a swampy soakaway, excessive grass growth and sewage fungus (Grey cotton like) in local waterways can indicate that your or neighbouring systems are not working properly. The most common problem is that tanks simply need to be emptied or that the pipes are blocked (these can be cleared with boiling water and/or rods). It is vital problems are fixed immediately, preventing pollution, health risk, livestock risk and escalating repair bills.

3) Empty regularly

All systems must be emptied regularly! The frequency will depend on the levels of use, and how well the system is treated. Having it emptied annually by a registered waste carrier will ensure it functions properly with limited risk

4) Keep a record

It is the Owners' responsibility by law to ensure the system work efficiently. Records of maintenance dating back years must be kept. When selling a property, you must inform the buyer in writing that a septic tank is present and provide them the maintenance records.