PROTECTING WATER QUALITY

SEPTIC TANKS, SMALL SEWAGE TREATMENT PLANTS AND CESSPITS

ses WATER

UNSEWERED PROPERTIES

Most households and businesses are on mains sewerage, with wastewater from toilets, showers, washing machines, etc., flowing via drains and sewers to wastewater treatment works, where it is treated before being returned to the environment. However some properties, particularly in rural areas, rely on septic tanks or small sewage treatment plants (also called package treatment plants) to treat sewage or alternatively cesspools (often called cesspits) to store waste until it can be taken away.

GET TO KNOW YOUR SYSTEM...

What type of system have you got? Where is it and, for septic tanks and small sewage treatment plants, where do they discharge to?

You are responsible for a septic tank, small sewage treatment plant or cesspool if...

- You own the property using the system (responsibility is joint if the system is shared with other properties).
- You have an agreement with the owner of the property that the wastewater system is your responsibility.
- You must ensure you adhere to the rules and regulations governing off-mains drainage, and could be struck with a pollution fine if not compliant.

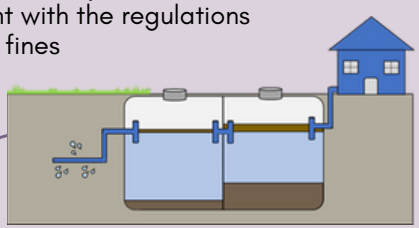
RISKS TO THE ENVIRONMENT

If wrongly installed or maintained incorrectly, these systems can release raw sewage to groundwater or rivers, ditches and other waterbodies. This poses a risk to water quality and the environment by...

- Adding nutrients to ground- or surface water, impacting the quality of drinking water sources. Excess nutrients can also promote algal blooms, suffocating aquatic life.
- Introducing microorganisms/pathogens that are a risk to water quality and human health.
- Releasing household chemicals to groundwater or watercourses.
- Causing a foul smell.

SEPTIC TANKS

- Septic tanks are the most common solution for properties not on mains sewerage.
- Waste is allowed to settle into three different layers - sludge, liquor and a crust at the surface. The liquor enters another chamber(s) where this separation process is repeated. Water then leaves the tank into a soakaway system/drainage field where it percolates through subsoils without causing pollution.
- Bacteria in the tank help breakdown the waste, however sludge and crust will still require periodic emptying.
- Septic tank discharges directly to watercourses/ditches are no longer compliant with the regulations and could be liable for fines up to £100,000.



THINGS YOU CAN DO:

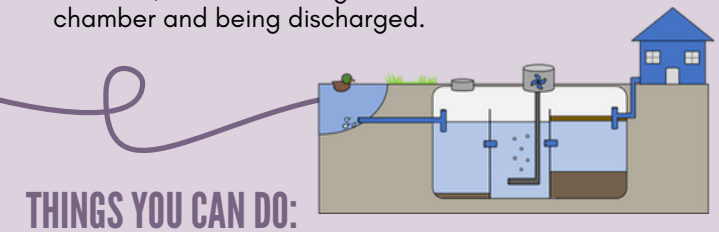
- Have residual solids emptied from your tank at least annually by a registered waste carrier. Remember to keep auditable records.
- Use suitable cleaning products and detergent - strong bleach, solvents, medicines, etc., can kill bacteria needed in the tank for decomposing waste.
- Be mindful of water usage - excess water entering the tank can overwhelm the system, flushing out untreated sewage. The balance of bacteria that decompose sewage in the tank can also be disrupted, making the system less effective.
- Check the area around your system frequently for any unpleasant smells, waterlogged ground, lush plant growth or sewage fungus that could indicate a problem with your system.

LEGAL REQUIREMENTS:

- Your tank must meet the Government's 'general binding rules' - these differ for discharges to ground or surface water. If these rules cannot be met, a permit is required.
- If your sewage system discharges to groundwater in source protection zone 1 (i.e. close to a drinking water source), a permit is required. Check the map to find out more about source protection zones and see if your tank falls within zone 1.
- Building regulations approval is required to install a new sewage treatment system. Planning permission may also be needed - check with your local council.

SMALL SEWAGE TREATMENT PLANTS

- Small sewage treatment plants are similar to septic tanks, however they use additional mechanical processes to achieve a greater level of treatment and as such may discharge directly to watercourses or ground.
- Wastewater is first allowed to settle into three distinct layers (sludge, liquor and crust), the liquor is then aerated, enhancing the breakdown of waste by bacteria, before entering a final sedimentation chamber and being discharged.



THINGS YOU CAN DO:

- Have residual solids emptied from your tank at least annually by a registered waste carrier. Remember to keep auditable records.
- Service mechanical and electrical parts at least once per year.
- Use suitable cleaning products and detergent – strong bleach, solvents, medicines, etc., can kill bacteria needed in the tank for decomposing waste.
- Be mindful of water usage – excess water entering the tank can overwhelm the system, flushing out untreated sewage. The balance of bacteria that decompose sewage in the tank can also be disrupted, making the system less effective.
- Check the area around your system frequently for any unpleasant smells, waterlogged ground, lush plant growth or sewage fungus that could indicate a problem with your system.

LEGAL REQUIREMENTS:

- Your tank must meet the Government's 'general binding rules' – these differ for discharges to ground or surface water. If these rules cannot be met, a permit is required.
- If your sewage system discharges to groundwater in source protection zone 1 (i.e. close to a drinking water source), a permit is required. Check the map to find out more about source protection zones and see if your tank falls within zone 1.
- Building regulations approval is required to install a new sewage treatment system. Planning permission may also be needed – check with your local council.

CESSPOOLS

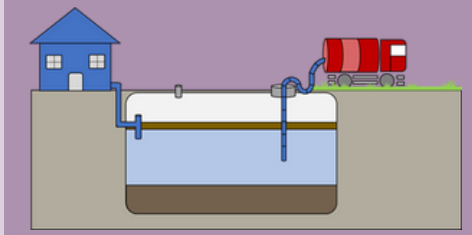
- Cesspools are simply a holding tank for wastewater – there is no treatment or discharge outlet.
- You are responsible for ensuring the tank does not leak or overflow. The Environment Agency or local council can make you repair or replace your cesspool if it's in poor condition.

THINGS YOU CAN DO:

- Have the tank emptied regularly by a registered waste carrier (generally required monthly to four times a year depending on tank size and number of property occupants). Remember to keep auditable records.
- A level alarm can be used to alert you when the tank is nearing capacity – do not be tempted to lift the lid to look yourself as toxic gases maybe present.
- Be mindful of water usage and ensure rain-/surface-/groundwater is not entering the system as this will result in the need for more frequent emptying.
- Make sure it meets the minimum capacity required (18,000 litres for 2 users, plus another 6,800 litres for each extra user).
- Check the area around your system frequently for any unpleasant smells, waterlogged ground, lush plant growth or sewage fungus that could indicate a problem with your system.
- Keep the areas surrounding the tank clear for easy access when emptying.

LEGAL REQUIREMENTS:

- The Government's 'general binding rules' do not apply, however you must ensure it is regularly emptied by a registered waste carrier and is not allowed to leak/overflow.
- A permit is not required unless the Environment Agency informs you otherwise.
- Planning permission and buildings regulations approval is required to install a cesspool.



AVOID ALLOWING THESE ITEMS INTO YOUR WASTEWATER SYSTEM

- Grease and fat
- Antibacterial products
- Medicines
- Sanitary products or nappies
- Wet wipes (including those marked as 'flushable')
- Chemicals (e.g. paints/varnishes)
- Cotton buds
- Cat litter
- Rainwater/surface water or groundwater

Report any suspected pollution incidents to the Environment Agency using their 24-hour incident hotline (0800 80 70 60)

OTHER ADVICE AND SUPPORT

- For the latest, most up-to-date requirements for septic tanks, small sewage treatment plants and cesspools visit the Government's webpage. A list of registered waste carriers can also be found on the Environment Agency's webpage.
- SES Water's Catchment Management Team engages with various stakeholders across the catchment, including landowners, industry and farmers, to address water quality at source, helping ensure wholesome drinking water. For more information on our work visit the SES Water website or email catchment@seswater.co.uk.

This document was produced by SES Water to help raise awareness of the impact that unsewered properties can have on water quality of drinking water sources. We do not accept any liability for its use. Please be aware that updates to septic tank, small sewage treatment plants and cesspool requirements may be issued following the publication of this leaflet; the latest, most up to date guidance in full is available on the www.gov.uk website.