USEFUL PUBLICATIONS

- British Water 2012. Code of Practice: A guide for users of Small Wastewater Treatment Systems (Package Plants). www.britishwater.co.uk.
- Environment Agency 2006. Pollution Prevention Guidelines (PPG 4): Treatment and disposal of sewage where no foul sewer is available. www.environment-agency.co.uk.
- Stoate, C. 2007. The Eye Brook - a multifunctional approach to catchment management. British Wildlife. April 2007. Pages 240-247.

ACKNOWLEDGEMENTS

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To download the Welland Valley Partnership's plan "Enhancing the River Welland", and for further information on the Partnership's work, please go to **www.wellandriverstrust.org.uk.**

LOOK AFTER YOUR SEPTIC TANK AND HELP TO IMPROVE OUR RIVERS!

WELLAND VALLEY PARTNERSHIP

Design and printing: **www.designsource.org.uk**

Welland Rivers Trust

www.wellandriverstrust.org.uk

Do you have a septic tank or 'package treatment plant'?

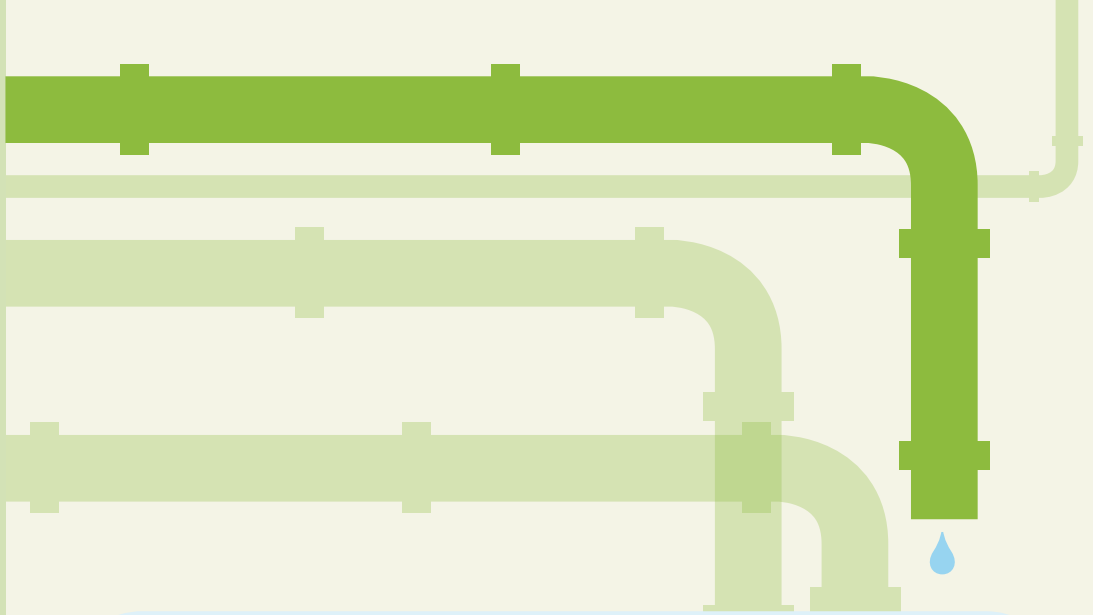
If so, this leaflet could help you to help the Welland Valley Partnership achieve our shared vision for the River Welland:

We want the River Welland, from its source near Market Harborough, through to the tidal limit at Spalding, including all its many tributaries, to:

- Be cleaner and healthier.
- Continue to provide drainage and manage flood risk.
- Support more fish, birds and other wildlife.
- Meet the needs of drinking water suppliers and businesses.
- Provide a more attractive place for people to enjoy.
- Be sensitively managed by everyone whose activities affect it.

We are already working with individuals, land managers, local communities, businesses, voluntary organisations, local authorities and government agencies to realise our vision.

As this leaflet explains, if you have a septic tank or package treatment plant you have a very important role to play too. Please read on - and join us!



TACKLING WATER POLLUTION

We are asking everyone to help us reduce several types of water pollution:

- High **phosphate** levels can cause excessive plant growth, so that watercourses become choked with algae, water flows fall, and oxygen levels are reduced.
- **Sediment** clogs up river gravels, preventing fish from spawning and reducing the viability of their eggs. Soil particles also carry nutrients and pesticides into the water.
- **Pesticides** reduce populations of shrimps (an important food source for fish) and create challenges for water companies in treating water for public supply.
- **Chemicals** such as disinfectants, medicines, and paints, can poison water organisms and the bacteria which break down wastewater in sewage works and septic tanks.
- **Decomposing organic matter** removes oxygen from the water and makes it difficult for fish to survive, especially when temperatures are high and water flows are low.
- **Fats, oils and grease** (FOG) can block pipes, cause smells and lead to flooding.

These pollutants come from many sources, including households, businesses, farmland and highways. We are asking everyone to work with us to improve water quality.

OUR 10-POINT ACTION PLAN TO REDUCE WATER POLLUTION FROM SEPTIC TANKS

There are several thousand septic tanks (and 'package treatment plants') in the Welland Valley. Their collective impact on water quality is substantial. For example, local research has shown that there may be 10 times as much phosphorus in discharges from septic tanks compared with arable field drains. Also, soakaways do not always work well on clay soils.

We are asking everyone with a septic tank or package treatment plant to help improve water quality by adopting the good practices set out in our 10-point action plan.

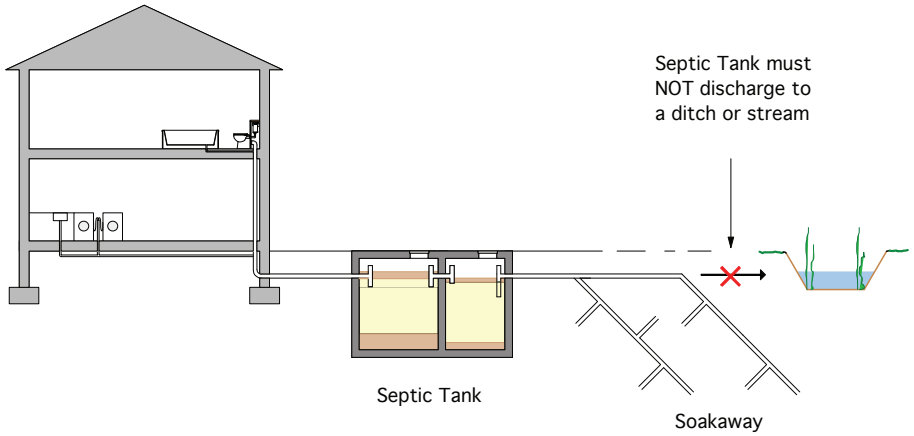
1. Get to know your septic tank:

- Where is it? Usually downhill from the property – look out for a metal or concrete lid.
- If you are new to the property, check the title deeds or ask your landlord.
- Do you share it with anyone else? Check with your neighbours.
- Where does it discharge? It should never discharge directly into a field drain, ditch or stream: if it does, you are very likely to be causing pollution and breaking the law.
- Does it have a proper soakaway (drainage field) to manage the effluent?
- Is there any risk to watercourses? The tank should be at least 10 metres away.
- Is there any risk to any borehole, spring or well used for drinking water? The tank should be at least 50 metres away.

2. Find out how your tank works:

The diagram below indicates a standard layout. The key parts of a septic tank are:

- Wastewater from your property goes into the septic tank.
- This usually has two or three chambers to hold and break down the sewage.
- The heavier substances sink to the bottom, separating from the liquid.
- Oils and fats float above the liquid (as scum) while gases rise to the top of the tank.
- Billions of helpful bacteria in the tank break down the solids safely.
- The bacteria have to be kept alive if the tank is to work effectively!
- The liquid effluent drains away from the tank into a soakaway ('drainage field').
- The soakaway should be designed to remove the remaining pollutants before the liquid reaches any surface water or aquifer underground.



Septic Tank Installation

A 'package treatment plant' (e.g. a 'Klargester' or a 'Biodisc') is a 'mini' version of a water company sewage works. These plants:

- Need an electricity supply and often have some equipment above ground (e.g. a pump or raised cover).
- Use an electrical pump to supply air to the treatment plant. This allows aerobic bacteria to grow and break down the wastewater.
- Treat the wastewater entirely within the unit, without using a soakaway.
- If properly maintained, produce an effluent which it may be safe to discharge to a watercourse (although the effluent will still contain phosphate).

3. Check all parts of your septic tank system regularly:

- Ensure access points are secure and in good working order.
- Open the inspection chamber: the effluent should be pale or clear and odour-free.
- Check that the soakaway (drainage field) is not waterlogged.
- There should be no pools of water, or any water running into field drains, ditches, or watercourses.
- If in doubt, ask a licensed contractor to check the system.

4. Have your tank desludged and serviced regularly:

- The build up of sludge is the commonest cause of problems.
- Septic tanks should be emptied and serviced every 1-2 years as necessary.
- To find a suitable waste disposal contractor in your area search the Yellow Pages under 'Septic Tank Services', 'Drain and Pipe Cleaning', or 'Sewage Consultants'.
- Always check that a contractor has a current Environment Agency licence.
- Check that the contractor will dispose of the sludge responsibly and safely, preferably by taking it to the nearest sewage treatment works.

5. Use products which will keep your tank bacteria healthy:

- Choose low-phosphate detergents for your laundry and automatic dishwashers. Aim for products with less than 5% phosphate (or sodium tripolyphosphate - STPP).
- Use only products marked as 'suitable for septic tanks' or 'environmentally friendly'.
- Use cleaning products and detergents only in the recommended amounts.
- Use a sink strainer to prevent excess food waste reaching your septic tank.
- Put fats, oil and grease in your household waste, not down the sink.

6. Avoid actions which will damage your tank bacteria:

- Avoid using bleach, disinfectants and anti-bacterial soaps in the home because these will often kill the bacteria needed to keep the tank working properly.
- Avoid pouring fats, oil and grease down your drains as these do not break down in small systems and can cause blockages.
- Do not put fabrics, sanitary waste, nappies, tissues, or kitchen towels down the toilet: 'Bag it and bin it!'
- Do not pour solvents, pesticides, medicines or paint down your drains.
- Try to avoid having a single 'wash day'. Spreading clothes washes throughout the week will reduce any damaging impacts on the system.

7. Look out for any problems and act promptly:

Signs of problems with the tank and/or the soakaway include:

- Nasty odours from the discharged effluent.
- Discoloured grey or dark effluent.
- A blocked soakaway (e.g. if the area is swampy, smelly or has prolific grass growth).
- Visible effluent or sewage fungus (which looks like grey/white cotton wool).
- Slow-draining pipes or gurgling sounds from the drains.
- Any untreated effluent entering a watercourse.

If you find a blockage and can identify the cause:

- Do not allow sewage to overflow.
- Do not use caustic solutions to unblock drains – use boiling water or drain rods instead.
- Don't let problems linger - they could cause pollution and harm your health.
- Seek advice or help as necessary.
- Inform the Environment Agency as early as possible if there is any sign of water pollution.

8. Make your tank fit for the future:

- Monitor water usage, and where possible, reduce it as necessary, to prevent the septic tank over-filling and untreated sewage being released.
- Septic tanks more than about 25 years old were not designed to take the volume of water generated these days from showers, dishwashers and washing machines.
- If any rainwater drains into the tanks (e.g. from roofs) find a way to collect it separately and direct it elsewhere. Otherwise the soakaway may flood with untreated effluent.
- Install a larger tank and/or a new soakaway if the existing system simply cannot cope with the volume of water coming into it.
- Consider installing a package treatment plant if this would be a better option than replacing the septic tank and soakaway.
- Consider, where feasible and affordable, installing a 'zero-discharge' system which contains all the effluent on-site. These systems use beds of reed and/or willow to treat discharges from the tank. Installation costs are some £8,000- £10,000.

9. Keep good records for your septic tank:

- Keep a record of your system, when it was last emptied, its location, layout, age and size.
- This will be useful for any contractors during servicing or if any problems arise.
- Help any new owners by passing this information on to them.

10. Seek advice if you have any questions or problems:

- Contact a licensed waste disposal contractor to service and/or desludge the tank.
- Contact the Environment Agency if you see any pollution risk or if you need to register your septic tank system. Visit www.environment-agency.co.uk or call 03708 506506.
- Contact Anglian Water for advice on possible connections to mains drainage. Visit www.anglianwater.co.uk.
- Contact the Welland Valley Partnership for information about our work and/or to offer any feedback on this leaflet. Visit www.wellandriverstrust.org.uk.