

Do you have a septic tank or package treatment plant?

If the answer is yes, then this leaflet could help you to help us improve water quality in the rivers and Broads near your Norfolk home. We are sending you this leaflet because the rivers near you flow towards one of the Sites of Special Scientific Interest (SSSI) in Norfolk that does not currently have good enough river water quality to support their fantastic wildlife. We need your help to put this right.



The water quality near these SSSIs is generally very good apart from the level of phosphate (a nutrient) which is too high. High phosphate leads to algae growth and poor water quality. Algae prevent light reaching through the water and use up oxygen, affecting the creatures within the water. We need to reduce this phosphate level.

Phosphate comes from several sources including: dishwasher and laundry detergents added to soften and hold dirt in the wash water; human sewage; and animal manures or fertilisers washing off fields or yards. Several initiatives such as catchment sensitive farming are encouraging farmers to reduce these problems.

How is your sewage treated?

Many homes are connected to the mains sewer and get a bill from Anglian Water for treating this waste. Over the last few years Anglian Water has been removing phosphate at its larger sewage treatment plants; this has lowered the amount of phosphate entering the Broads and rivers.

However, there are many households who do not have mains sewage available and we have sent this leaflet to those most likely to use a septic tank or package treatment plant.

If you are unsure whether you have a septic tank or package treatment plant, please look at the sections near the end of this leaflet.

How can you reduce the phosphate from your septic tank or package treatment plant?

1. Have your tank emptied regularly (at least once a year) to avoid a build up of sludge.

A proportion of phosphate settles out into the sludge. If this sludge is not removed then the volume of the tank is reduced, and more untreated sewage will pass out into the soakaway, carrying phosphate and solids with it. Solids in a soakaway can also cause blockages which are expensive to fix.

When choosing a de-sludging contractor, please ensure that they will dispose of the sludge responsibly and safely, preferably to the nearest sewage treatment works.

2. Choose environmentally friendly detergent brands with no phosphate at all.

They're out there on the shelves if you look for them. Watch for the word PHOSPHATE on the side of each packet. Phosphate is sometimes called sodium tripolyphospahte (STPP). Aim for less than 5% if you can.

3. Use less detergent.

Reducing the amount going into the system will reduce the amount coming out. The amount of laundry detergent you need to use depends on the hardness of the water in your area and how dirty your laundry is. Even if you do use detergents with phosphate in them, you can still help the environment by using the minimum amount recommended on the pack, and of course still get good results.

4. Buy laundry liquids or powders instead of tablets.

Laundry liquids tend to contain the least phosphate, laundry tablets the most.

5. Minimise bleach and disinfectant use.

Both septic tanks and package treatment plants are biological systems that rely on micro-organisms. Using too much bleach or other powerful cleaning agents can kill these micro-organisms.

6. Keep roof water out of your sewerage system

Rainwater from the roof is clean and doesn't need treatment. If large volumes of rainwater are put into septic tanks they can wash out solids into the soakaway. Roof water should be discharged to a separate soakaway or to a watercourse.

7. Check that your septic tank (including the soakaway drains) is a suitable distance from any watercourse.

Septic tanks do not clean the sewage sufficiently for it to directly enter a watercourse. If your tank pipes water straight to a watercourse, please consult a drainage expert to stop this. You would be breaking the law if you allow this situation to continue.

Old septic tanks were not designed to take the volume of modern water use created from dishwashers and washing machines. Older septic tanks, particularly those over 25 years old, often have problems treating this much water.

8. Do not put solid items such as nappies and sanitary items down the sewerage system.

They often block the system, leading to sewage overflowing into gardens and bad smells! Bag it and bin it!

9. Act immediately if you find a blockage.

Do not allow sewage to overflow. Do not use caustic solutions to unblock drains – use boiling water or drain rods.

Thank you for your help. With a few changes, together we can all improve our rivers and Broads to make them a better place.

What sewerage system have you got?

What does a septic tank look like?

A septic tank is usually a two or three chamber system, which holds sewage to allow the solids to form into sludge at the bottom of the tank. Here it is broken-down and the remaining liquid drains from the tank through a pipe into a drainage field or soakaway. This soakaway is critical for removing the remaining pollutants through the soil before the liquid reaches a watercourse or the water under the ground. However, if a large amount of phosphate is allowed to enter the soakaway, or it is close to a watercourse, the phosphate can eventually reach the water.



What does a package treatment plant look like?

A package treatment plant is a more sophisticated unit than a septic tank, such as a 'Klargester' or a 'Biodisc' which needs an electrical supply and often has some equipment above ground, such as a pump or a raised cover.

Package sewage treatment plants create an environment which helps the growth of bacteria which break down sewage. They are mini versions of municipal sewage works. Treatment plants further treat the sewage within the unit, rather than using the soil in a soakaway like a septic tank. An electrical pump supplies air to the treatment plant. This allows aerobic bacteria to grow which are effective in the breakdown of sewage. This results in a high quality effluent being produced which can discharge to a watercourse provided that the plant is maintained properly. However, this liquid still contains a high proportion of the phosphate.

More information about sewerage systems is available from our website or by contacting us on 03708 506 506

Mon-Fri 8-6. Calls to 03 numbers cost the same as calls to standard geographic numbers (i.e. numbers beginning with 01 or 02).

email enquiries@environment-agency.gov.uk or visit our website www.environment-agency.gov.uk

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