# What you can do to prevent pollution

Pollution Incidents in Wales should be reported to NRW on 0300 065 3000.

This is a 24-hr incident report line and is the preferred route for reporting. Twitter and Facebook messages have a 24-hr response time and are only covered during a normal working day.



When you report a pollution incident, as a minimum, you should ensure:



That you are given an **incident number** from NRW, ideally ask for it to be sent via email. You can then send **photographs of the incident** in a reply, which will be linked to NRW's case file. You should use this number for all future correspondence and follow-up.



You **retain details on the incident**, the incident number, date and time are imperative if you wish to collect evidence on repeat issues. It also helps other organisations to support if they can link to the original incident number.



You give **precise location** information, consider using //What.Three.Words. The more precise, the better as the call handler won't know the area. You could also send photographs of the general area and any local landmarks, which will help to locate the incident.

If you think the pollution is sewage, you can also contact the local water company.

Welsh Water

24-hr pollution Incident Report Line: 0800 085 3968.

Or report pollution incidents online.

Hafren Dyfrdwy

Emergency line: 0800 085 8033
Or <u>report</u> a problem through messaging apps.

No specific pollution reporting number.

# SIGNS OF POLLUTION



# **SEWAGE**

Sewage discharges are grey, cloudy and often accompanied by a strong pungent smell.

Storm overflows should only operate after exceptional rainfall. If you see a storm overflow operating during dry weather periods, please report it. All Welsh Waters assets have an asset plate on them with an identifier name and asset number, this may help with reporting.

# **SEWAGE FUNGUS**

Slimy growth found in polluted waters, which consists of bacteria, fungi and/or single-cell organisms called protozoa. It is a sign of organic pollution, frequently found where there is sewage discharge or agricultural pollution.

It can range from a thin film on surfaces to a build up of cotton wool-like mass. Typically grey in colour but it can vary from white to brown or pink, depending on the species present.







Source: Geatches et al. (2014): Sewage fungus - a field and microscopic and guide.

# **SEWAGE FUNGUS**





Left: River bed covered in sewage fungus (from Geatches et al., 2014). Right: Cotton wool-like growth of sewage fungus.

### DISTRESSED OR DEAD FISH

A sign of a river with serious issues!

This will either be due to pollution impacts in the river, or in summer can be as a result of low flow and high water temperature.

#### REPORT IMMEDIATELY!

The earlier the response time, the higher the chance an action can be taken to limit the extent of river impacted. A fish rescue may be required in these incidents.



# MINING RUNOFF

Bright, often orange discoloration of water.

There are 1,300 abandoned metal mines in Wales impacting over 200 km of rivers. NRW have carried out an extensive assessment and, in the majority of cases, will be aware of affected rivers.

# **DIFFUSE POLLUTION**



Our rivers are also impacted by diffuse pollution from agriculture, which can come in a number of forms.

Because it is not a point source discharge, like sewage or septic tanks, it is more difficult to identify and trace to source.

Potential sources and signs of diffuse pollution:

 Loss of soil and excessive runoff due to poor land management (e.g. poaching and overgrazing of river banks, inadequate ploughing on slopes etc.). Increased soil and sediment input results in turbid, brown waters.



- - Application of slurry to land under the wrong conditions, i.e. closer than 6m from the bank or pre/during periods of heavy rainfall. Slurry pollution in a river may appear brown and smells strongly.
  - Disposal of milk directly to the river.

Excessive sediment load in a river can sometimes occur after a heavy rainfall in a part of the catchment. Taking photographs and providing a detailed description will help NRW to assess the seriousness and impact of the incident.

# LITTER

Rivers in Wales suffer from various forms of litter pollution. These vary from food and drinks packaging, sewage debris, agricultural plastic packaging, trolleys and bikes!

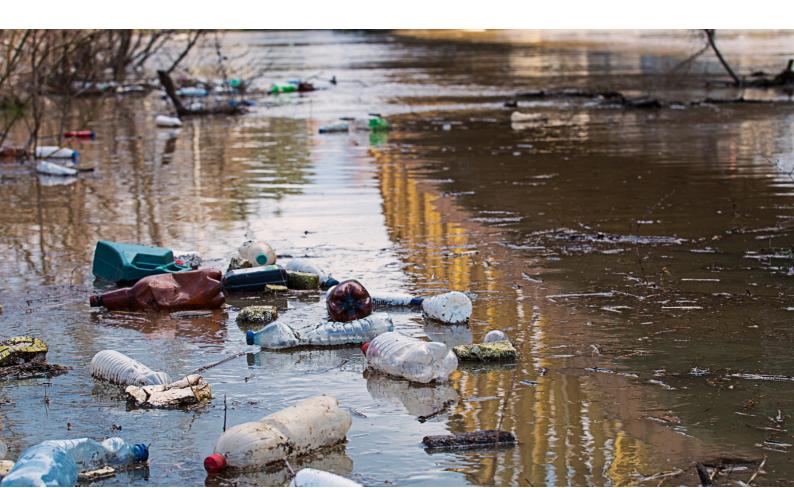
In some areas, waste impacts to rivers is significant, do not underestimate the litter than can be found.



# What can you do?

Please dispose of all waste in waste disposal bins, if the bin is full, take your waste to the next empty bin or take it home!

Please ensure if you are having waste collected by a private waste collector from your home, due to a DIY project or a home clearance, that your waste provider is licensed. Waste operators have to be licensed with the NRW, please check their website:

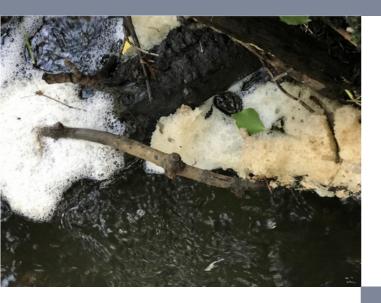


# YOU MAY COME ACROSS:

# FOAM - NATURAL PHENOMENON

Natural foam occurs on rivers, lakes and on our coastlines. It is produced when molecules, such as fatty acids, act as surfactants reducing the surface tension of water. This allows water and air to mix easily, creating bubbles.

Fatty acids are released when organic matter decays. Foam often occurs following storms and windy weather as organic matter is washed out and then starts to decay. The natural breakdown of algal blooms could also cause foaming. Algal blooms generally occur between April and August.



Natural foam often starts white and turns tan or brown. It can have a strong smell, often earthy or fishy.

Large amounts of foam can accumulate, often downstream of rapids or structures such as weirs, or in eddies.

Natural foam is harmless and there is no need to report.

# Natural foam or sewage?

Sewage will more likely have a cloudy, grey appearance as opposed to the bubbling foam of algal die-back. If you are unsure, try to follow the impact upstream – a sewage discharge will be traced back to a pipe.

# Could foam be caused by pollution?

Most foam in rivers is natural, however, occasionally foaming can be caused by synthetic products such as detergents. In this case, foam will be white, might have a fragrant smell and will likely be localised, close to a source of drainage.

#### **TESTING DYES**

There were recently reports of a potential pollution incident on a river in Cardiff. Sometimes the water industry, NRW or academic researchers use dye to trace the movement of water, for example to trace mis-connections in the network.

The dye colour is very unnatural and bright, often pink, green or blue.

Dye tracers are non-toxic and will not harm the ecosystem.

# WHAT CAN YOU DO IN YOUR HOME?

#### THE THREE P's

Our sewage systems would operate much better if they only had to deal with three things:

# Pee Poo Paper

If you dispose of anything else down the toilet or drain in your home, you should be aware that this may cause operational blockages and/or will be directly discharged to the river during a storm.



### **WET WIPES**

Baby wipes, cleaning wipes, antibacterial wipes, toilet wipes, facial wipes...

About 90% of wet wipes contain some form of plastic. Unlike toilet paper, they don't break down and should not be flushed down the toilet. In addition to the environmental harm they cause when they enter our rivers, they cause sewer blockages, which are costly to remove. Just one wet wipe is enough to start a blockage in a sewer pipe.

# How about flushable or biodegradable wet wipes?

Many wet wipe products say they're biodegradable. However, there is no legal definition of 'biodegradable', so please ignore this advice and dispose of wet wipes only in a bin.

Fine to Flush certification scheme carries out laboratory testing and approves wet wipes, which truly break down in a sewer. It is the only such standard in the UK.



Wipes which meet this standard should not contain plastic but their degradability can still varies greatly depending on place, temperature and other external factors. We would still advise to dispose of them in a bin.

# But they're still single-use.

In 2022, Welsh Government passed the Single Use Plastic ban to eliminate single use plastics such as cotton buds, cutlery, food packing etc in Wales. However, wet wipes did not make the Bill and we will continue to campaign that they should. Write to your local MS and ask them to ban wet wipes in Wales!

# FATS, OILS AND GREASE



FOGs can cause significant impact to both your home drainage and to the sewer. As well as causing operational blockages in the sewer, FOGs have the potential to build up to create fathergs.

Simple household tips are:

- 1) Use a paper kitchen towel to wipe out frying pans or oven tins and dispose of the towel in your home compost bin, BEFORE washing up in the sink
- 2) Collect your FOGs in a home container such as an old mug or cup, wait for it to solidify and dispose in the home compost bin
- 3) Make a container using foil in you plug hole and drain your pan/tin into the plug well. Once cold, the foil parcel can be folded and disposed off straight into the bin.

# SEPTIC TANKS

If your house is not connected to a mains sewer, you probably have a septic tank.

Septic tanks are a potential source of pollution to surface and ground waters, especially if they're poorly maintained and not emptied regularly.

In Wales, you are required to <u>register your septic tank</u> with NRW.

It is your responsibility to maintain it. A septic tank should be emptied every 12 - 24 months by a registered contractor and a drainage field should be checked monthly to ensure it's not waterlogged.

Tips which can help run your septic smoothly:

#### Do

- use cleaning products in moderation
- use the same, phosphate-free cleaning products

#### Don't

- dispose of fats, oils, chemicals and solvents in the drain
- connect roof or surface run-off
- plant trees near your treatment system
- flush anything but 'pee, poo and paper' down the toilet
- park over or compact a drainage field

This is intended as a guide only, prepared by Afonydd Cymru.



# If you suspect a pollution incident, call NRW as soon as possible: 0300 065 3000 (24 hours).