

UPM TILHILL Toolbox Talk

Diffuse Pollution & Protecting the Water Environment

What is diffuse pollution?

Diffuse pollution is the release of potentially polluting substances from a range of land-use activities. These can result in significant impact on the water environment, for example, reduction in water quality or decrease in wildlife.

What causes diffuse pollution?

Rural diffuse pollution arises from activities some of which we undertake as part of our services. These include:

- Ground preparation and drainage.
- Harvesting and forwarding.
- Construction of forest roads and tracks.
- Application of fertilizers and pesticides.

These activities give rise to a release of potential pollutants such as silt, which can impact on water quality.

A site does not need to be next to a river to cause a problem. Pollutants get into surface drains or groundwater and end up in a water body many miles away.

Note: When we use the term 'watercourse' this includes open drains or ditches.

During September 2012, fishermen alerted the Environment Agency Wales (EA) to a pollution incident in a salmon spawning stream, which discharged into a river with SSSI status. They reported sediment being carried in the watercourse. The EA traced this to drainage operations on a forestry plantation some distance away. The site was managed by UPM Tilhill and was being prepared for forestry restocking. The EA issued us with a caution. We avoided a prosecution due to our quick, positive and constructive response to the incident.

A note on Silt

This is one of the most likely pollutants causing diffuse pollution from our activities. Silts are fine particles of soil that get washed into watercourses from surrounding land. Some silts will naturally reach water bodies however. Poor site planning and management combined with heavy rainfall and steep slopes, greatly increases this type of pollution and the potential for prosecution.



Image © of Environment Agency

Why is Diffuse Pollution a problem?

Diffuse pollution causes harm to the environment and can cause a hazard to human health. For example:

- Increase in sediment in a watercourse leading to a reduction in variety of plant and animal life and loss of biodiversity.
- Silting of fish spawning grounds leading to loss of biodiversity, amenity and income.
- Toxic pollutants from fertilizers and pesticides for example, can affect human health through, for example, drinking water pollution.

Controlled waters have legal protection from pollution, including rivers, streams, ditches, ponds, groundwater and coastal water. Legal costs include fines as well as clean-up costs which have the potential to be large.

In March 2013, the Forestry Commission Wales was fined £24,000 for polluting a 33 km stretch of a waterway in Powys. Soil and silt disturbed by heavy machinery strayed into a watercourse during tree thinning operations.

It is vital that we manage the risk of pollution on our sites to prevent environmental harm and avoid prosecution. We do this by careful planning of our operations and making sure that the plans are put in place on site and checked regularly to see that they work.

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What can we do to prevent diffuse pollution?

DO

- ✓ Before work starts, assess the water quality in any surrounding water bodies.
- ✓ Identify drains and mark them. They should also be marked on hazard maps provided with work instructions.
- ✓ Does the site and activity have potential for significant sediment release?
- ✓ Identify all water bodies and gain appropriate authorisations to conduct work where it may impact on them. The site manager should liaise with the Environment Agency, SEPA or Natural Resource Wales officers as appropriate before work starts.
- ✓ Situate any fuel or chemical storage at least 10 metres from drains and water courses
- ✓ Consider installing cut-off trenches, settlement ponds and silt fences to prevent run off and allow settlement.
- ✓ Monitor weather forecasts and plan work accordingly.
- ✓ Check water quality in surrounding water bodies as work progresses.
- ✓ Make sure you write down your controls and checks as evidence of what you are doing to prevent pollution.
- ✓ **STOP WORK** and speak to a manager if you need support or help.
- ✓ **STOP WORK** and alert a manager if you notice water becoming discoloured.

DON'T

- ✗ Let silty water run directly into rivers, ditches or surface drains.
- ✗ Ignore changes to weather that increase risks of diffuse pollution. Additional controls may need to be put in place.

Finally

If you are in any doubt about what you should do to prevent diffuse pollution, or feel that weather or ground conditions have increased the risk of pollution, you should stop work and speak to the site manager who will arrange for specialist support and help.

REMEMBER: MOST INCIDENTS ARE QUICKLY RESOLVED BY GOOD COMMUNICATION.

Pictures showing good and bad practice can be used to supplement this Toolbox Talk. These can be found in **TT/67 Diffuse Pollution Pictorial Guide**.