

UPM TILHILL Toolbox Talk

Diffuse Pollution – Pictorial Guide to Good and Bad Practice

What is diffuse pollution?

Diffuse pollution is the release of potential pollutants from a range of activities that individually may have no effect on the water environment, but at the scale of a catchment can have a significant impact (i.e. reduction in water quality, decrease in wildlife, etc.).

Log Bridge

Good

- ✓ Well thatched with brush. Water course clear of any obstruction.



Be Aware

Log Bridge letting water flow, but brush needs repair to avoid silt and mud polluting watercourse.



Bad

- ✗ Bridge overwhelmed with silt and mud. Watercourse full of sediment. No clean brush.



Brush Mats

Good

- ✓ Well thatched with brush. No mud or silt coming up through brush. Dry and clean.



Be Aware

In need of repair – now



Bad

- ✗ Brush layer overwhelmed by mud silt and water. Repair with fresh brush required asap.



- ✗✗ No attempt to brush extraction route. Unacceptable ground damage resulted.



continued

Roads

Good

- ✓ Road surface well cambered with no ruts or significant puddles.



Bad

- ✗ Road rutted and significant puddling. Water carrying silt spilling into adjacent water course.



Brush Mat Runnels

Good

- ✓ An attempt to stop sediment running down the main extraction route. The runnel channels run off into a silt trap and the water drops the silt and then flows through rushes to the water course clean.



Bad

- ✗ No attempt to control water and run off. Insufficient brush. Significant site damage and pollution.



“Water quality can be maintained or enhanced through good forest planning and management, and in particular through the identification and management of buffer areas” (Forests and Water, 2011).

“Forest drainage should be planned and, where necessary, existing drains should be realigned to ensure that water is discharged slowly into buffer areas and not directly into watercourses” (Forests and Water, 2011).

continued

Geotextile Silt Trap/Dam

Good

- ✓ Geotextile catching sediment and debris in roadside drain preventing watercourse pollution.



- ✓ Geotextile being used to prevent sediment release from an extraction route into a water course.



Bad

- ✗ No trap to catch silt. Watercourse polluted.



- ✗ Silt traps should not be used in watercourses



continued

Corduroy extraction route over soft ground

Good

- ✓ Substantial brush and timber extraction route made protecting the underlying site – no silt or water on mat.



Control of water

Bad

- ✗ Mucky water flowing uncontrolled over the site. Cut off drains required urgently to capture water and silt traps to allow water to drop silt before entering watercourse.



continued

Roadside Drainage

Roadside drains should not intercept large volumes of water from the ground above. Any watercourse, however small, that is intercepted by a road should be culverted or bridged at that point. Culverts for road drainage should be of a sufficient size and spacing to avoid overloading, blocking or washout. Roadside drains likely to carry high sediment loads must not be allowed to discharge directly into streams, but must discharge to a buffer area of adequate width. Drains on the upper side of the road may need culverts to the lower side a short distance before stream crossings so as to prevent direct discharge.



Source: Forest and Water Guidelines (4th Edition).

More information on diffuse pollution can be found at:

www.sepa.org.uk/water/water_regulation/regimes/pollution_control/diffuse_pollution.aspx

General Binding Rules

GBRs represent a set of mandatory rules which apply to Scotland but can be taken as best practice elsewhere. They cover specific low risk activities. Activities complying with the rules do not require an application to be made to SEPA, as compliance with a GBR is considered to be compliance with an authorisation. Since the operator is not required to apply to SEPA, there are no associated charges.

The GBRs that apply to forestry include:

GBR20: Cultivation of land (NB cultivation includes tree felling)

Rules:

- a) Land must not be cultivated for crops if it is:
 - within 2m of any surface water or wetland;
 - within 5m of any spring that supplies water for human consumption or any well or borehole that is not capped to prevent water ingress; or
 - waterlogged (defined as visible surface water).
- b) Land with an overall gradient in excess of 4.5° must not be moled.
- c) Land must be cultivated in a way that minimises the risk of pollution to the water environment.

GBR21: The discharge of water run-off via a surface water drainage system to the water environment (rural land activities).

Rules:

- a) Run-off must be discharged in a way that minimises the risk of pollution to the water environment.
- b) Drainage must not result in destabilisation of the banks or bed of the receiving surface water.

GBR22: Construction and maintenance of waterbound roads and tracks.

Rules:

- a) Material that will or is likely to result in metallic, sulphide rich or strongly acidic polluted run-off must not be used in the construction and maintenance work.

GBR23: The application of pesticide.

Rules:

- a) The preparation of pesticide for application and the cleaning or maintenance of pesticide sprayers must be undertaken in a manner that prevents any spillages, run-off or washings from entering the water environment.
- b) Pesticide spraying equipment must be maintained in a good state of repair.
- c) Pesticide sprayers must not be filled with water taken from the water environment unless:
 - a device preventing back siphoning is fitted to the system; or
 - the water is first placed in an intermediate container.
- d) Pesticide-treated plants must not be soaked in any part of the water environment