

SEPA's Regulatory Guidance on the Placement of Large Wood in the Water Environment

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Purpose

This document sets out SEPA's regulatory guidance relating to the placement of large wood within the water environment.

Background

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (As Amended) (referred to as CAR) regulates activities associated with the water environment. SEPA do not wish to place additional burdens on projects which provide environmental benefit, however some projects can result in a significant change in environmental processes and these will still require assessment under the Regulations

Intended use

Large wood can be used for a variety of purposes, including:

- **Habitat Enhancement**

Introduction of large wood either parallel to or projecting from the river banks can alter the physical structure of the channel, alter flow dynamics/hydraulics and lead to creation of micro and mesohabitats for different species' life stages, as well as providing refuge and resting places for fish and other aquatic species.

- **Natural Flood Management (NFM)**

Installation of large wood can act as a major roughness element, slowing flows and increasing instream water levels during moderate to high flows and thereby increasing water storage on the floodplain. It may also increase the degree of hydraulic connectivity between stream flow and groundwater and between streamflow and floodplain.

If the intention of any structures installed for the purposes of NFM is to slow or hold back flows acting to impound water then careful consideration must be given.

Hydraulic modelling may be required, though note SEPA will not directly regulate flood risk under CAR.

- **Bank protection**

Bank protection works can be undertaken to protect eroding banks with techniques involving placement of trees or parts of trees.

Works not requiring authorisation

Projects clearly mimicking natural processes will not require authorisation by SEPA provided the principles below are followed.

In introducing large wood into rivers in a way which mimics natural processes we would expect such projects to:

- Use only a few pieces of natural wood (this wood should be untreated – i.e. not treated with preservatives).
- Remain broadly 'leaky' to flows, sediment transport and permit fish passage.
- Be for ecology/ habitat creation.
- Have only localised impact on flows.
- Use appropriate fixing methods for the situation and desired outcome.

SEPA does not currently regulate the management of riparian woodland including its clearance. SEPA would encourage that any necessary bankside vegetation removal is minimised and banking is not unnecessarily cleared.

Note: Operating a vehicle plant or other machinery in or near a watercourse to create structures will be subject to authorisation under General Binding Rule (GBR) 9.

The pictures below show examples of works not requiring prior authorisation.



Works subject to authorisation

Works not meeting the criteria above will be subject to authorisation. The level of authorisation varies based on the environmental risk, low risk activities may be authorised by a General Binding Rule (GBR) which does not require application to SEPA. Higher risk activities require an application to be made to SEPA for a registration or licence.

Works authorised by GBR

Proposals to protect eroding banks:

- GBR 25 -Those works using trees or parts of trees (for bank protection) are controlled by GBR 25. This allows a wide variety of techniques to be used. Details can be found at: <https://www.sepa.org.uk/regulations/water/engineering/sustainable-riverbank-protection/>
- GBR 8 – Some green bank protection works, where small, can be carried out provided these rules are followed.
- GBR 9 – When using machinery to carry out GBR level activities you must also comply with these rules

The conditions of the GBRs can be found in ‘The Water Environment (Controlled Activities) (Scotland) Regulations 2011: A practical Guide’ (CAR Practical Guide) available at: https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf.

Providing the GBR conditions are met, no consultation or prior authorisation is required from SEPA.

If your work proposals cannot comply with the principles above or the GBR’s then you will need to apply for authorisation as per CAR Practical Guide, you may also wish to discuss your proposals with SEPA at this stage.

Works authorised by Registration or Licence

Any proposals involving the placement of large wood that do not meet the criteria set out in the sections above will require you to apply to SEPA for authorisation.

Proposals requiring an application to be made to SEPA include:

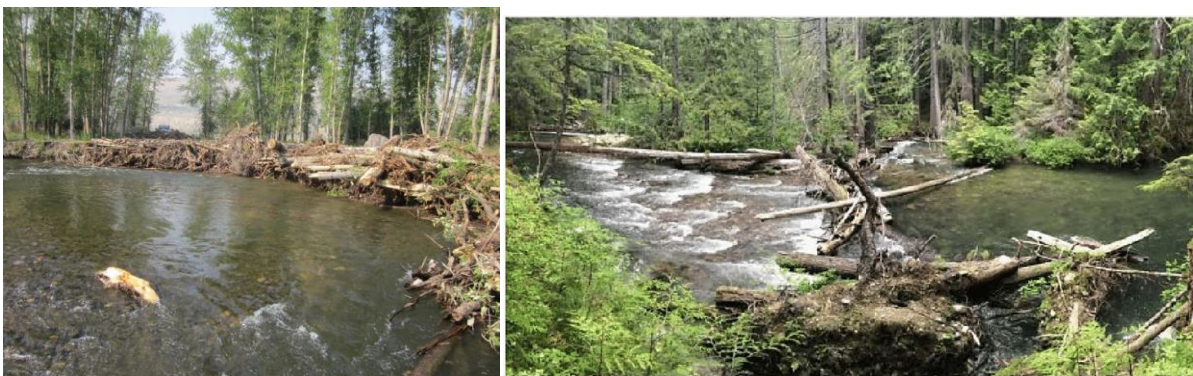
Any impoundment of water - formal structures built to impound water across the full channel width (e.g using logs, planks or heavily pinned and secured elements). An impoundment can be any dam, weir or other works by which surface water may be impounded. Such structures that are installed on a long term basis or are semi-permanent in nature. They are likely to interrupt fish passage, hydrological and morphological river processes.

Level of authorisation – License - All new impoundments require licencing as per CAR Practical Guide

Protecting banks – The use of material to protect banks from erosion may require prior authorisation where there is no relevant GBR. Such structures impact on the morphology of the river by directly impacting the banks and associated habitat.

Level of authorisation – various - see bank reinforcement definitions within the CAR Practical Guide

The pictures below show examples of works requiring application for authorisation.



Other Considerations

Site specific sensitivities (e.g. conservation designations, protected species, riparian wildlife habitats) may lead to different approaches in terms of appropriateness of techniques. For larger or sensitive projects SEPA would like to have discussions with river managers prior to works being carried out.

Careful consideration should be made to the location and placement of wood in relation to other structures within the vicinity and any potential adverse impacts it could have on flooding and other water users both upstream and downstream, e.g. flood risk caused by the blockage of bridges and culverts due to woody debris.

Those in receipt of or planning to receive funding from the Scottish Government should give consideration to Cross Compliance and may wish to seek further advice.

Useful links and documents

Sustainable Bank Protection Guidance:

<https://www.sepa.org.uk/regulations/water/engineering/sustainable-riverbank-protection/>

SEPA Natural Flood Management Handbook:

<https://www.sepa.org.uk/media/163560/sepa-natural-flood-management-handbook1.pdf>

Working in or Near Rivers and Lochs:

https://www.sepa.org.uk/media/352604/know_the_rules_one_page.pdf

Flood Risk Advice:

<https://www.sepa.org.uk/media/94134/car-flood-risk-standing-advice-for-engineering-discharge-and-impoundment-activities.pdf>

CAR Practical Guide:

https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf

SEPA Contacts and Office locations:

<https://www.sepa.org.uk/contact/>

Scottish Government Cross Compliance:

<https://www2.gov.scot/Topics/farmingrural/Agriculture/grants/Schemes/Crosscompliance/section/ccompliance>

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<http://contactscotland-bsl.org/>

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