PE2109/K: Halt any further pump storage hydro schemes on Scottish lochs holding wild Atlantic salmon

Scottish Environment Protection Agency written submission, 14 October 2025

SEPA has provided below information on the planning and water permitting contexts of Pumped Storage Hydro.

Planning

Under National Planning Framework 4 (NPF4), Pumped Storage Hydro (PSH) is explicitly recognised and supported as a national development within the planning system. This designation helps streamline planning processes by giving such projects presumption in favour of development.

NPF4 is designed to align with Scotland's 2045 net-zero target. It aims to support the expansion of renewable, low-carbon, and zero-emissions technologies, and pumped storage hydro is considered a key part of this infrastructure national development. While supportive, NPF4 also acknowledges impacts are expected with large-scale infrastructure like PSH schemes. These impacts are considered acceptable if appropriately mitigated as per NPF4 policy.

Land use planning must consider the potential environmental impacts of proposed developments. When a planning application involves activities regulated by us, we will advise if the proposal is potentially capable of gaining consent. This ensures that environmental protection is integrated into the planning decision-making process. As the consenting authority for [1]Water Environment (Controlled Activities) (Scotland) Regulations, (CAR), SEPA decide whether the activity itself can go ahead based on potential impacts on the water environment. Whilst we give this advice at the planning stage, we do not grant planning permission. This is done by the planning authority or, in the case of PSH, the Energy Consents Unit (ECU). The ECU is unlikely to consent a project if we have not advised that the proposal is potentially capable of gaining consent

The Electricity Act and the planning system are closely linked through the consenting process for electricity infrastructure, particularly for large-scale projects. Under the Electricity Act, we must be consulted on applications for PSH schemes. We give advice to the consenting authority during the planning process, focusing on environmental impacts related to land use. Developers are responsible for assessing the environmental impact of their projects, including how their scheme might add to the effects of other similar projects (i.e. cumulative impact), both existing and planned. We review this information and, where impacts relate to the water environment, we will provide relevant advice to help mitigate those impacts.

[1] https://www.sepa.org.uk/regulations/water/

It is important to note that planning and water permitting are separate but interlinked consenting regimes. PSH schemes must obtain both planning permission and CAR consent; neither process overrides the other.

Water Permitting

All abstractions and impounding works, including for PSH developments, require an authorisation from SEPA under CAR. From November, CAR will be replaced by the Environmental Authorisations (Scotland) Regulations[2]. All current applications will be determined under CAR. However, the same considerations will continue to apply when determining applications under the Environmental Authorisations (Scotland) Regulations.

In determining an application for authorisation under CAR, SEPA must assess the risk to posed to the water environment by the proposed development, including cumulative effects with other activities.

If SEPA considers that the proposed development will be likely to have a significant adverse impact on the status of the water environment, SEPA may not grant authorisation unless it is satisfied that:

- the benefits of the proposed regulated activities to sustainable development will outweigh the benefits from protecting the status of the water environment;
- all practicable steps will be taken to mitigate the adverse impacts of the proposed regulated activities on the status of the water environment; and
- the benefits expected from the regulated activities cannot for reasons of technical feasibility or disproportionate cost be achieved by other means that are a significantly better option.

Details of how SEPA undertakes such assessment is described in its published regulatory methods[3].

If the proposed development is likely to have a significant adverse impact on a Special Area of Conservation (SAC), SEPA must also carry out the necessary appropriate assessment under the regulation 48 of the Conservation (Natural Habitats, &c.) Regulations, including consulting with NatureScot. SEPA will normally only grant authorisation if it has ascertained that the proposal will not adversely affect the integrity of the SAC.

Large PSH developments will in many cases have a significant adverse impact on the status of the water environment. Their potential to adversely impact Atlantic salmon will depend on the specifics of each development, including its location.

The current scientific evidence regarding some potential adverse impacts of large or cumulative PSH developments in a river catchment on Atlantic salmon, such as the potential effects on migratory behaviour from changes in water levels and water temperatures, is currently relatively sparse. SEPA will:

[2] https://beta.sepa.scot/regulation/authorisations-and-compliance/easr-authorisations/
[3] https://www.sepa.org.uk/media/149762/wat_rm_34.pdf

- continue to review the latest research and evidence as it becomes available to ensure its assessments are based on the best available scientific understanding;

- engage with developers and other interested parties to identify ways in which potential adverse impacts on migratory behaviour can be minimised through the design and operation of proposed schemes. This may include the use of mitigation to regulate the timing of the operation of the scheme; and

in coming to decisions on an application, consider any remaining uncertainties about potentially significant impacts on migratory behaviours, including from the cumulative effects of PSH developments in the river catchment.