



Run-Of-River Hydropower

Purpose

The Institute of Fisheries Management understands the desire to develop renewable energy in the form of hydropower, but believes that this should form part of a strategic assessment of sources of power and environmental risks. The IFM will support appropriate hydropower developments where it can be clearly demonstrated that they will not cause damage to fish populations or prevent a river reach from achieving Good Ecological Status or Potential as required by the Water Framework Directive.

The Institute encourages the development of run-of-river hydropower schemes that include mitigation measures, such as fish passes, where the overall benefits to fisheries and the local economy far outweigh any damage caused by the hydropower elements.

IFM calls for:

- Environmental regulators, the hydropower industry and other interested parties to promote and support science to further our understanding of the relationship between fish ecology and hydropower schemes and the development of measures to minimise impacts of schemes on the environment and fisheries.
- No building of new dams or weirs or retention of existing dams or weirs solely for hydropower purposes unless accompanied by mitigation measures that will maintain or improve the river reach to good ecological status or favourable conservation status for fish species that are features of interest of an associated Special Area for Conservation or otherwise protected.
- The development and use of turbine types that present low risks of damage and mortality of fish, either direct or indirect, and thereby obviate the need to install screens or other measures to protect fish from damage.

- Regulators to adopt the precautionary principle and require a form of environmental risk assessment relating to all fish stocks present and the fisheries affected by each hydropower development proposal. Monitoring should be required of any scheme where doubts remain as to the effectiveness of the regulatory measures adopted in relation to the risks identified.
- Recognition of the likelihood of cumulative effects from series of hydropower developments within a catchment and calls upon regulators to develop overall catchment strategies for hydropower development.
- Cessation to run-of-river hydropower developments that may involve fish entering reaches from which their exit is unnaturally constrained or where they may be put at risk from adverse environmental conditions associated with flow diversion.

The IFM is the only independent professional body representing fisheries professionals in the UK. Founded in 1969 our members come from across the fisheries sector.

Background

The drive to provide renewable energy has resulted in a proliferation of schemes (potentially tens of thousands) to develop small hydropower projects, especially run-of-river, which are those which have no capacity to store large quantities of water. The majority rely on an impoundment to create a head of water or to facilitate the abstracting structure. Others rely on the natural gradient of the river to create a head by diverting water into a separate channel.

The forms of turbines, fish passage arrangements and effects on water flows in the associated environments are among the major factors affecting the ecological impacts of run-of-river hydropower schemes.