EIA Quality Mark Case Study

Allt Druidhe hydro-electric project, Perth & Kinross, Scotland

Purpose of the project
The purpose of the project was to design, environmentally assess, permit and project manage the construction and reinstatement of the Allt Druidhe hydro-electric scheme, which was located on a tributary for the River Tay, a Special Area of Conservation for habitats and fisheries. Despite the scale of development falling well below the 0.5MW threshold for EIA development, the sensitive location of the scheme led to a screening opinion that the scheme was EIA development and required a comprehensive EMP to give the regulators confidence that the scheme could proceed without significant environmental effects.

Key Issues

- The specific issue was ensuring that the proposed EIA mitigation and construction management measures were carried over effectively into construction practices in order to protect the SAC into which the burn enters.
- The River Tay Special Area of Conservation (SAC) is protected for Lamprey, Salmon, Otters, and Clear Water Lochs with aquatic vegetation.
- Poor construction and restoration practices would have the potential to cause enforcement action and financial costs for remediation of damaging sedimentation to the SAC.
- Fast, effective restoration of the site was required due to its location in a National Scenic Area (NSA).
- Managing a contractor with limited experience of hydro construction and the need for sediment control.
- Utilisation of an Environmental Clerk of Works that would provide an effective interface between the contractor and the client’s engineer to ensure delivery of the project without causing significant effects to the SAC and NSA.

Description of the project
Hydro-electric scheme with an installed capacity of 50kW, located to the south of Loch Rannoch in Perth & Kinross County. The scheme would connect to the local distribution network and export approx. 250MWhr annually.

Scheme requirements included a new intake with access track, pipeline, powerhouse and outfall. Suitable restoration of the site as soon after construction was a requirement due to its location in the Loch Rannoch and Glen Lyon National Scenic Area.
Lessons learnt
Following are the lessons learnt in managing the effective conversion of EIA mitigation into practical implementation at the construction phase:

- Whether a condition of permission or not, prepare a prescriptive Environmental Management Plan predicated in detail upon measures for mitigation, construction practices and restoration proposed in the EIA that can be enforced on the contractor as elements of the construction contract.

- Ensure the appointment of an appropriately experienced Environmental Clerk of Works (ECoW) fully instructed by the EIA coordinator on the EIA findings and the EMP provisions.

- We recommend that construction contracts include specific items requiring adherence to environmental management measures, so that financial penalties for breaches of the terms of the contract act as a necessary deterrent.

- During the pre-contract stage, arrange site walkovers with prospective contractors and the EIA coordinator to ensure knowledge of the site and the necessary environmental protection and management measures.

Lessons learnt cont. -

- Encourage the client/developer to appoint a principal contractor who, as well as price, also includes consideration of relevant experience and references, particularly any previous history of working to EMPs and where the contractor can demonstrate a strong track record of minimal environmental incidents. Experienced and reliable contractors are more likely to contribute to the long term sustainability of the project.

- Enable the ECoW, via the construction contracts, to have sufficient powers to influence and, if necessary halt, construction practices in accordance with the EMP if they are not being employed or adhered to.

- Have provision to allow retention of part of the contract value until such time as the site has been restored to the satisfaction of the ECoW and the developer.

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