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Consultation on 'Streamlining permitting of hydropower projects in England and Wales'

A response by the Blueprint for Water

The Blueprint for Water was launched in November 2006 by a unique coalition of environmental, water efficiency, and fishing and angling organisations to call on the Government and its agencies to set out the necessary steps to achieve "sustainable water" by 2015 and to fully implement the Water Framework Directive (WFD). The Blueprint for Water is a campaign of Wildlife and Countryside Link.

Wildlife and Countryside Link (Link) brings together voluntary organisations in the UK concerned with the conservation, enjoyment and protection of wildlife, countryside and the marine environment. Our members practise and advocate environmentally sensitive land management and food production practices and encourage respect for and enjoyment of natural landscapes and features, the historic and marine environment and biodiversity. Taken together our members have the support of over 8 million people in the UK and manage over 690,000 hectares of land.

This response is supported by the following 7 organisations

- ❖ Angling Trust
- ❖ Association of Rivers Trusts
- ❖ Buglife – The Invertebrate Conservation Trust
- ❖ Salmon & Trout Association
- ❖ Royal Society for the Protection of Birds
- ❖ The Wildlife Trusts
- ❖ Wildfowl and Wetlands Trust

1. General comments

The Blueprint for Water (the Blueprint) believe that, alongside enhancing energy efficiency measures, increasing the uptake of a range of renewable energy sources in the UK is fundamental to reducing greenhouse gas emissions and averting dangerous climate change. We believe that run-of-river hydropower can play a small part, provided that steps are taken to ensure adverse effects to our aquatic ecosystems are minimised, including to hydrogeomorphology, instream substrate, fish, invertebrates, associated flora and fauna and the flows required to support them. In order that the aquatic environment can adapt to climate change, we must ensure that these ecosystems are as naturally resilient as possible and that the legal requirements of the WFD to achieve good ecological status (or good ecological potential) in rivers are met.

From the Blueprint for Water's 10 steps to Sustainable Water, the following two steps may well be compromised if potential run-of-river hydropower schemes are installed without proper regard for the aquatic environment;

1. Keep our rivers flowing and wetlands wet; amend or revoke those water abstraction licenses that damage lakes and wetlands
2. Restore rivers from source to sea; regenerate rivers, lakes and wetlands in partnership with local communities

Blueprint sets out key steps below to achieving sustainable run-of-river hydropower:

- ❖ Selecting the correct sites will be crucial to both speeding up the consenting process and ensuring the best environmental outcomes. An independent Environmental Impact Assessment must be carried out for all hydropower applications at the specific site, and assessed within the catchment context. This assessment should be on the basis of the natural range of aquatic species regardless of their presence or absence from the specific site.
- ❖ Comprehensive scoping and early engagement with stakeholders at the pre-consultation stage should help address concerns before planning applications have been submitted.
- ❖ Hydropower can be achieved without compromising the objectives of WFD if the impacts and alternative options are thoroughly examined.
- ❖ The Blueprint also believes that the possibility of mitigation non-performance bonds should be examined to ensure that only the most effective and well thought out proposals come forward. Developers should be required to forward a bond that would be cashed if post-scheme monitoring (full range of flora and fauna within the affected river reach) showed that the mitigation or power output did not meet that as set out in the application.
- ❖ Wherever possible wet wildlife connection corridors should be in place to ensure that there is no impediment to natural up and downstream movements of fish and invertebrates past all hydropower schemes.
- ❖ There should be minimal adverse effects on natural water flows or levels that adversely affect the aquatic environment in its natural state.
- ❖ Vulnerable species should be prevented from entering the turbines and directed to the by-wash channel by appropriate screening.

We would like to make the following comments to specific questions:

1. *Do you agree we should develop a single decision process for our permissions as defined in Box 1? What do you think should or should not include?*

We agree there should be a single point of contact within the Environment Agency (the Agency) and a lead officer to co-ordinate the responses from the Agency and to manage discussions with the developer. This will still require input from technical specialists on the different permissions required, especially fisheries.

2. *How can stakeholder participation in our decision-making be improved?*

Our experience with potential environmentally damaging developments in the planning system has show that early engagement with stakeholders at the pre-consultation stage is essential. Early meetings with interested parties, specifically statutory conservation agencies, environmental NGO's, angler representative bodies, including River Associations, should be informed at the earliest stage and their views and local knowledge sought to help address concerns before planning applications have been submitted. This would help to ensure that the site is actually appropriate for the development, and highlight any unacceptable environmental damage, or help to develop possible mitigation measures. We believe this should be much more strongly worded in the Guidelines and, if legally binding, made a statutory obligation on the applicant.

3. *Do you agree with our good practice principles in handling hydropower applications?*

We suggest an additional 1st bullet to read;

- Scope out the development area to determine if there are any statutory or non statutory wildlife designations or priority species present. If so, is it likely a development can go ahead without damaging these interests?

Sensible site selection is the key factor in ensuring investment in an application is not wasted. Any potential problems or concerns from interested parties should be identified as early as possible. This will help to ensure that the development is in the correct location and that potential objections to any applications may be resolved before an application is submitted.

Bullet 4 should be amended to state that;

- Pre-application discussions should be encouraged with as wide a range of stakeholder groups as possible to ensure that potential concerns with a development can be addressed before applications are set in train.

4. How can we improve co-ordination between permitting and the planning permission process?

The mapping of hydropower opportunities and risks in whole river systems should be built into integrated catchment management plans, and this data should be made available as baseline information for both the permitting and planning processes. This should take account of cumulative ecological, especially fisheries, impacts down the catchment and special attention should be given to statutory and non statutory designated sites (SAC, SSSI, NNR and Local Sites). The socio-economic value of the catchment's fish populations and ecosystem services should be considered alongside the value of the potential power generation.

Once baseline information is determined for each catchment, permitting and planning should be more easily integrated. For instance, baseline data will inform the size of screening required to protect fish from turbines, and so this would automatically be included in the planning process

5. What do you consider to be the key environmental issues for small-scale hydropower that require further evidence to understand and mitigate?

- ❖ Impacts on invertebrates particularly in relation to life cycle impacts on vulnerable species and effects on invertebrate drift
- ❖ Physical modification of river channel/floodplain
- ❖ It is also important to consider the potential impacts of any associated infrastructure e.g. pylons/overhead cables crossing important breeding or migration sites for birds.
- ❖ How downward migrating fish such as salmonid smolts behave at hydropower schemes, in terms of the time spent holding above and the route they take to pass the obstruction? What levels of mortality can be expected from predation and turbine damage?
- ❖ Similarly, how are downwardly migrating smolts affected by hydropower schemes – the length of hold up, the flow required to encourage migration at different river levels, the attraction to turbine tail races/fish passes etc
- ❖ What is the cumulative effect of several hydro schemes on a river system? In particular, at what stage could the cumulative hold up of smolt migration impair the fishes' ability to smoltify and enter the marine environment?
- ❖ In terms of mitigation, under an integrated catchment management scheme, which obstructions could be removed from the river system to increase connectivity and help mitigate against hydropower schemes at other obstructions?

6. *What aspects of technical guidance in the Good Practice Guide do you think are missing or need further development?*

The main issue here is the lack of baseline information at individual catchment level, as commented on in 5 above. Without this baseline information, it is not possible for either developers to know what they will be required to undertake technically to protect fish stocks, other biodiversity and the general environment or for the EA planners and Permitting Department to effectively process applications. The good practice guidance should also address the potential impacts of associated infrastructure on non-aquatic biodiversity.

7. *How can the provision of information in support of applications be simplified?*

There is an urgent need for all information to be made available electronically at the earliest possible point of the application process. At present, stakeholders are in many cases left to do their own onerous research to obtain information, and this is unacceptable. At the very least, there should be a point of contact within the NGOs and Fisheries where this information is automatically sent, thereby treating relevant NGOs as statutory consultees.

8. *How much monitoring should operators be required to carry out after licensing to demonstrate their hydropower scheme is not having a detrimental environmental impact?*

Large scale developments should carry the responsibility and cost of monitoring. Developers of small and medium scale projects may not have sufficient funds to do so and a scheme whereby such developers jointly contribute towards the cost of monitoring by the Agency, or its contractors, may be required. In salmon rivers, monitoring should continue for 5 years to cover the span of life cycle from egg to parr to smolt to returning multi-sea winter salmon. Rivers with predominantly other species present should have relevant monitoring times to ensure minimal impact on those species. In conjunction with fish monitoring general biological monitoring should occur with invertebrate, plant surveys and vulnerable species should be targeted by survey work.

9. *How much monitoring should operators be required to carry out after licensing to demonstrate their hydropower scheme is not having a detrimental environmental impact?*

Post-scheme monitoring must ensure;

- ❖ Wet wildlife connection corridors are in place and allow natural up and downstream movements of fish and invertebrates past all hydropower schemes.
- ❖ There is minimal adverse effect on natural water flows or levels that is adversely affecting the aquatic environment in its natural state or indirect effect of flow changes e.g.: siltation.
- ❖ Vulnerable species are prevented from entering the turbines and directed to the by-wash channel by appropriate screening.

This monitoring should be carried out on the full range of flora and fauna within the affected river reach.

10. *What additional help should we provide specifically for community groups and individuals to help them through the application process?*

The Agency should make its mapping exercise available so that individuals can see where they would be most unlikely to receive consent. Any win-win situations (where the installation of a turbine would enable construction of a new fish pass, for example) should also be shared.

11. Please identify and define low environmental risk hydropower scenarios that might become common and so justify making specific arrangements?

The Blueprint would be concerned if too much emphasis is placed on generic criteria. We believe that hydropower schemes should be integrated with existing catchment management plans, for example River Basin Management Plans with the objective of reaching good ecological status as defined by the WFD. Each hydropower scheme should therefore be assessed on an individual basis, with regard to its relevant catchment management plan, however closely aligned its situation may be to the generic criteria.

12. What do you think are the implications of Article 4.7 of the Water Framework Directive for hydropower projects?

Article 4.7 provides a clear and workable test for development; the requirement to look at environmentally better options means that significant emphasis should be put on mitigation or other approaches that will deliver the same public goods. This is another driver to ensure that site selection is given adequate consideration at the earliest stage. It is imperative that any new consenting regime for hydropower ensures that potential impacts on waterbody status are identified and the required tests set out in Article 4.7 of the WFD are met. The only complication with the application of 4.7 will be when there is an absence of monitoring on the waterbody. No matter what the status of the waterbody, those elements liable to be affected by changes to hydromorphology.

Article 4.7 also states cases where new modifications to the physical characteristics of a river provides an excuse for failure to achieve good ecological status or potential and an excuse for preventing deterioration in status. All of the following conditions must be met;

- ❖ *All practicable steps are taken to mitigate* .In most cases practicable steps will apply e.g. fish passes, screens, limited proportion of flow taken, hands off conditions
- ❖ *The reasons... are specifically set out in the River basin Plan...* Does this mean set out in advance and if so have they been set out already? In our opinion, as stated above, WFD objectives can only be effectively delivered at catchment level, and under the guidance of individual catchment management planes incorporating all relevant issues, of which hydropower is but one.
- ❖ *The reasons are of overriding public interest and /or the benefits to the environment and society of achieving good ecological status are outweighed by the benefits of the new modifications ...to sustainable development...*difficult to weigh up the relative benefits, but this condition should mean the value of the electricity produced & contribution to climate change mitigation must be weighed against the ecosystem benefits of good ecological status that might be impacted by the development. As a general rule, we believe that low head hydropower schemes are so limited in their ability to generate significant or economic levels of energy that there must be a presumption against them if there is concern over their environmental impact. The precautionary approach demands this, as does the WFD, because we do not believe that Article 4.7 has much relevance concerning run of river hydropower schemes.

Do you think it would be a helpful simplification if ecological, or perhaps energy, thresholds are provided in guidance? If so, how would you define and justify them?

We disagree with this proposal. As all waterbodies are different and there are a number of different hydropower designs. We do not feel that such a broad brush approach could not be implemented without the potential to adversely affect the environment.

13. Do you agree that we should develop catchment level strategies for hydropower? If so, what do you think catchment strategies should aim to deliver and what environmental

and other impacts should they consider? Should they seek to identify sites that are suitable and not suitable for hydropower?

We do not believe that it is necessary to develop new catchment level strategies but hydropower schemes should be integrated into existing Environment Agency planning processes.

14. *How could the legal framework for permitting hydropower be changed to streamline the permitting process without compromise on environmental protection?*

We feel that the simplicity and speed of the consenting process could be improved through better administration of existing requirements without adjusting the legal framework itself. This is the only way to ensure that adequate environmental protection is maintained.

15. *What additional proposals do you have to speed up the permitting process whilst protecting and enhancing the environment?*

We believe that research should be undertaken on each river catchment to determine where hydropower schemes might possibly be acceptable. All other applications would be refused immediately, without the need to go through EA planning or permitting processes. This would save on resources and time. There should also be one point of contact within the EA for both applicants and stakeholders, with information freely available to the latter in cases where applications are processed beyond the initial decision stage against catchment management objectives.

**The Blueprint for Water
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