Agenda Item 15

Hinkley Point C Update May 2019

The consultations run by the Environment Agency (EA) and EDF Energy for the removal of the requirement to install an acoustic fish deterrent (AFD) system at Hinkley Point C opened on the 2nd April 2019. Currently EDF's consultation end date is the 4th June but the EA's consultation has been extended until *at least* the 24th June. This is because EDF have submitted a number of additional documents which are crucial to the permit determination, after the start of the consultation. At the time of writing, there is still one document outstanding and so the EA's consultation is likely to be extended further.

The EA asked D&S IFCA to provide a draft response to their consultation by the 26th of April. Following a telecon to discuss the issues raised in D&S IFCA's draft response, officers will be preparing two addendums to the consultation, one focusing on the particular ecological importance of Bridgwater Bay and another focused on Essential Fish Habitat and efforts to protect juvenile fish, particularly in inshore areas.

D&S IFCA is preparing the response for the EDF consultation which will be submitted before the 4th June. There is currently no timeline for the expected third consultation on the same issue which will form part of the Marine Licence application.

Overview of the D&S IFCA Response to the EA Consultation

The issues raised in D&S IFCA's draft response to the EA consultation fall into two broad categories: **1.** *Technical concerns* which relate to the way fish mortality has been predicted for Hinkley Point C, both in terms of the use of data and the way that mortality will affect the ecosystem: **2.** *Policy concerns* that relate to the decision making process and current guidelines and the lack of adequate protection measures for fish, especially elsewhere in the UK. The response to the EDF consultation will largely focus on the technical concerns relating to Hinkley Point C.

Technical concerns

- Data is only presented on fish impingement (fish large enough to be caught on the drum screens), but not on entrainment (very small fish, larval stages and eggs which are small enough to pass through the drum screens and enter the cooling water system). The two processes together determine the overall fish mortality caused by the water abstraction. Without an assessment of impingement and entrainment together, no meaningful assessment can be made.
- The scale of the current analysis
    - The current assessments do not address the local impacts sufficiently and instead focus on large geographic scales. The assessment needs to consider both impacts at a stock level and impacts at a much more local level to understand the impact on the Severn Estuary Special Area of Conservation.
    - In the current broad scale assessment, there has been no critical evaluation of the appropriate geographic scale for each species of fish. Instead ICES stock delineation has been used. ICES stocks are determined to manage widely distributed fishing activities over large geographic areas and in many cases are unlikely to truly represent the structure of populations of fish. There is growing evidence that many species e.g. cod, bass and herring have much more finely structured populations (i.e. operating on a smaller geographic scale) than previously thought. This evidence must be reviewed as impacts on local

populations will be vastly underestimated if the ICES stock level does not reflect the true population structure.

- Estimating fish kill at Hinkley Point C
    - The estimated fish mortality at Hinkley Point C has been based on the fish kill at Hinkley Point B, with a scaling factor to take into account changes in the design between HPB and HPC. However, there are huge uncertainties in this scaling factor which makes many assumptions about the performance of the offshore water intakes, Low Velocity Side Entry (LVSE) intakes, Fish Recovery and Return (FRR) system. D&S IFCA believes the uncertainties introduce a large element of risk, and the evidence bases for the determination of the elements of the scaling factor are generally poor.
    - A recent EA report highlights that barotrauma caused by changes in pressure as fish travel through the underground intake tunnels might be a major issue/ This has not been assessed anywhere in the current documents.
    - For many species, only two years of data have been used to estimate mortality at HPC. Fish have naturally variable populations fluctuate widely between years and so such an assessment based on only two years of data may be completely unrepresentative for many species.

Policy and decision-making process concerns

- All the relevant environmental permissions were granted for Hinkley Point C before detailed technical details were available for the fish protection measures. The current issues at Hinkley Point C highlight that it is impossible to understand whether a development will have a likely significant effect before that detail is understood.
- D&S IFCA have raised concerns that direct cooling which takes water from estuaries and coastal areas can still be considered Best Available Technique, given the issues and uncertainties raised at Hinkley Point C and the increasing understanding of the importance of estuaries and inshore waters for fish.
- The Severn Estuary is unique in that the entire fish assemblage is protected as a sub-feature of the Severn Estuary Special Area of Conservation. In other coastal sites where nuclear power stations are planned, no such protections exist. Environmental Impact Assessments tend not to focus on local impacts in the same way that Habitat Regulations Assessments do. These local impacts may be crucial for the functioning of inshore ecosystems and fisheries.
- Cumulative effects assessments are often required under various legislation. However, these rarely cumulatively compare the effects of developments and the effects of fishing on fish. The legislative pathways for fisheries and other activities are often separate. In addition, meaningful analysis is very difficult at the level of the individual project, and strategic assessments (either sectoral or for Marine Plans) are too high level to consider locally important impacts. D&S IFCA believes there is a greater role of regulators to work together to consider the cumulative impacts of developments at the appropriate geographic scale.
- Adaptive management is increasingly seen as a cornerstone of sustainable development. It is at the heart of D&S IFCA's permitting byelaw approach. If monitoring determines that Hinkley Point C catches more fish than expected, there is no mitigation measure that can be employed to reduce the catches. This is especially concerning given the long lifespan (~60 years) of the power station.

More detail on all of these issues can be found in the full draft D&S IFCA response to the EA consultation, on the members area of the website. Additional information in the form of the

addendums mentioned above will also be sent to Authority members once they are finalised along with the finalised consultation response.

Links to the consultations are found below, however by the time of the quarterly meeting it should be noted that the EDF consultation may no longer by live.

https://consult.environment-agency.gov.uk/psc/ta5-1ud-nnb-generation-company-hpc-limited-2/

https://www.edfenergy.com/energy/nuclear-new-build-projects/hinkley-point-c/about/acoustic-fish-deterrent