Devon and Severn IFCA

Response to MMO Consultation for MLA/2021/00189

8th December 2021

Introduction and Scope of Response

Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA) is the statutory manager of sea fisheries from baselines out to six nautical miles in English waters as shown in Figure 1. The ten regional IFCAs have a shared vision to:

"lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry."

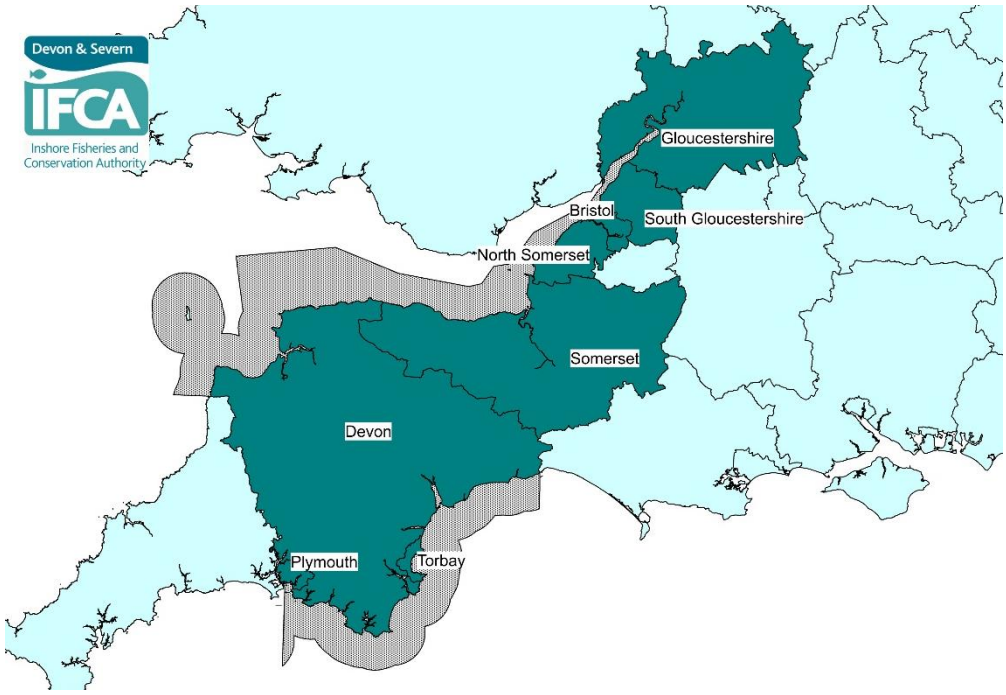

Figure 1. Map of Devon and Severn IFCA's District, showing in grey the sea area from baselines to 6nm (or the median line with Wales).

The powers and duties of all IFCAs are provided by the Marine and Coastal Access Act (MaCAA, 2009), in which the main legal duties are described in section 153: IFCAs must manage the exploitation of sea fisheries resources in their District, balancing the social and economic benefits of exploiting these resources with the need to protect the marine environment, or help it recover from exploitation. Under section 154 of MaCAA, IFCAs must seek to ensure the conservation objectives of any MCZs in the District are furthered. Additionally, under the Conservation of Habitats and Species Regulations 2017 (as amended), IFCAs are deemed to be relevant authorities for European Marine Sites (SACs and SPAs).

The D&S IFCA's response, below, focuses on seafish and their habitats rather than migratory fish (salmon, sea trout, river and sea lamprey, twaite and allis shad and European eel). The Environment Agency is responsible for managing migratory fish and the relevant fisheries.

Summary of response

This response outlines D&S IFCA's concerns regarding this application, and the additional evidence and assessments that D&S IFCA deems are important in order to make an informed response on this application. Though this response outlines a range of concerns regarding the application, the following represent the additional evidence and assessments that D&S IFCA deems important for subsequent consultation activities:

(i) Consideration of the impact on sediment movement of dredging at all states of the tide, rather than only on the ebb.
(ii) A thorough assessment, including through Habitats Regulations Assessment, of the potential impacts on the fish assemblage that is a sub-feature of the Severn Estuary SAC's Estuaries feature,
(iii) More thorough and conservative consideration of cumulative and in-combination effects

D&S IFCA would also like to request that, as the application process progresses, the Applicant provides a detailed response to each of the issues raised in this response, and how they have been dealt with.

Timing of dredging activity

The Application relies on a previous assessment (cited in the Application as Cefas (2018) SPP093: Sediment clearance from Combwich Wharf [HPC-DEV024-XX-000-RET-100047]). The Cefas (2018) assessment 'was undertaken to assess potential effects arising from clearing silt from the berth-bed, in support of a variation to Marine Licence L2013/00178/4, to undertake initial clearance of the berth bed, and subsequent clearance campaigns to facilitate deliveries. This concluded that "*no significant effect to the River Parrett waterbody is predicted to occur as a result of clearing Combwich Wharf of accumulated sediment*" and was based upon the following: the 'modest' increase in the daily sediment flux that is likely to occur; the low level of chemical contamination in local sediments; and that the sediment from Combwich Wharf originates from within the River Parrett itself'.

However, it is D&S IFCA's understanding that the Cefas assessment is based on dredging over the ebb tide, when sediment would be expected to join the flow of the River Parrett into the Severn Estuary. The current Application proposes dredging at other states of the tide, and the Applicant needs to consider the impact of dredging at other states of the tide, especially at slack tide and flood tide. In particular, the Applicant should more thoroughly consider impacts of sedimentation on upstream habitats due to deposition, and on juvenile fish (e.g. via impacts of sediment on gills, visibility, etc.). Section 4.5.9 of the Environmental Appraisal recognises that the dredged material may be re-deposited within the Parrett. D&S IFCA would question whether the Applicant has fully considered the issue of scale and its relation to environmental impacts. Though the material that accretes within Combwich Wharf will have come from the Parrett, it is insufficient to say that this means there will be little consequence of returning such material to the Parrett. Accretion in Combwhich Wharf occurs slowly, whereas the dredging and return of sediment to the river/ marine environment will happen much more quickly. The high volume of sediment returned, especially combined with the possibility of this occurring on the flood tide or over slack water, suggests a higher risk to the marine environment and fish receptors – including the Severn Estuary SAC fish assemblage and migratory species.

Severn Estuary SAC fish assemblage and the Applicant's HRA

There is a lack of consideration of effects of sedimentation on the fish assemblage that is a sub-feature of the SAC's designated Estuary feature. The definition of the estuarine fish assemblage as a sub-feature of the SAC Estuaries feature is consistent with section 2.1 of the Regulation 33 advice package for the Severn Estuary SAC. The fish assemblage comprises over 110 species and has specific conservation objectives. The European Commission guidance on the provisions of Article 6 of the Habitats Directive ('the guidance') confirms that when concluding an Appropriate Assessment any effects from the proposal must be assessed against the site's conservation objectives and that Site Integrity relates to these objectives. The guidance is also clear that if just one of the habitats or species for which the site has been designated is significantly affected, taking into account the site's conservation objectives, then Site Integrity is necessarily adversely affected. Furthermore, the interactions of the species in the fish assemblage and the way they interact with each other, the designated migratory fish species and designated habitats of the Severn Estuary SAC and SPA are of primary importance to the functioning of the Severn Estuary and the consideration of Site Integrity. The guidance states that "the integrity of the site involves its constitutive characteristics and ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the habitats and species for which the site has been designated and the site's conservation objectives". The species that form this assemblage should therefore be subject to Appropriate Assessment in their own right and are highly relevant to the conclusion of the HRA.

As stated, the fish assemblage includes over 110 species of fish, including many commercially and recreationally important species that are known to be present in the vicinity, and that use the tidal waters of the River Parrett. The Parrett is tidally influenced up to 34 km inland from the mouth at Steart Point to Oath Lock, and the average limit of saline intrusion is around 24km landward of Steart Point. This is reflected in the salinity values of the water samples taken at sampling points. These relatively high salinities are within the tolerances of, for example, juvenile bass (*Dicentrarchus labrax*).[1] The Parrett estuary is a proposed Bass Nursery area, and juvenile sea bass are known to move upstream into river systems.[2–4] This highlights the potential for this (and other) euryhaline species from the Severn Estuary EMS assemblage to be affected by sedimentation resulting from the proposed works. The lack of consideration should be addressed through more rigorous assessment, including of behavioural impacts and their consequences at the population level. Furthermore, fish movements in estuaries can vary on a tidal basis, and the Applicant does not assess possible dependence of fish on periods of lower suspended sediment concentrations that could be affected by the dredging activity.

The need for a precautionary approach

D&S IFCA has taken a precautionary approach to the management of fishing activities throughout its District, including in the Severn Estuary SAC. An example of the precautionary approach that is required is in D&S IFCA's approach to assessment of the potential impacts of bait digging activities on *Sabellaria*, outlined in detail below. This precautionary approach to a small-scale activity appears to be at odds with the approach taken, and conclusions reached, by the Applicant in relation to potential impacts of the proposed activities on the marine environment. In particular, the Applicant's assertion in the online application portal that "The scale of the works proposed within this application are minor and small scale and therefore any impacts will be insignificant and negligible" is insufficient.

The following example outlines a more appropriate approach to assessing and managing small-scale activities, including the need to address uncertainties before progressing with actions. The following example concerns an activity (in this case bait digging) and its interaction with a designated feature of the Severn Estuary SAC. All existing and potential commercial fishing activities must be managed in accordance with Article 6 of the Habitats Directive; this includes digging for polychaete worm bait, which are a sea fisheries resource. Anglers and commercial diggers dig for polychaete worm bait on the shores of the Severn Estuary, and there was some concern that this exploitation of sea fisheries resources may impact on intertidal *Sabellaria* if individuals were to trample or dig on *Sabellaria* reef to access bait or digging sites. As a result, D&S IFCA conducted bait digging surveys during 2012–2015. Data from these surveys were used to inform HRAs for bait digging in the Severn Estuary SAC and SPA. The purpose of these HRAs was to assess whether or not in the view of D&S IFCA the level of effort of digging with forks had a likely significant effect on the interest features of the Severn Estuary SAC or SPA. The HRAs concluded that bait digging had no adverse effect on the integrity of the EMS interest features. In April 2019, Natural England provided D&S IFCA with advice on the HRAs, highlighting a potential impact pathway at Hinkley Point where *Sabellaria* was recorded in a small area of the lower shore during the Hinkley monitoring programme. Digging for polychaete worms occurs in the coarse sediments and boulders at this location, which could have the potential to interact with the sensitive reef formations. Natural England therefore suggested additional work was required to further evidence D&S IFCA's conclusion that the level of activity is not sufficient to significantly affect the feature. Although this site was included in previous bait digging survey work carried out by D&S IFCA, sampling effort was relatively low. Consequently, D&S IFCA have carried out additional bait digging surveys in order to increase confidence in the assessment of no likely significant effect of bait digging *Sabellaria*. It is hoped that the foregoing example serves to outline the need for robust evidence and addressing of uncertainties when management decisions are required to be made. D&S IFCA suggests that the same approach is required with regards to marine developments, and that existing uncertainties (e.g. impacts of dredging at times other than over the ebb tide, impacts of sedimentation on the SAC fish assemblage) should be addressed by the Applicant.

Relevant issues associated with the Acoustic Fish Deterrent

The Applicant is known to be facing ongoing issues with Acoustic Fish Deterrent (AFD) technology and the Applicant's Water Discharge Activity permit variation application. D&S IFCA is concerned that this has not been acknowledged but could be important for cumulative effects and the in-combination assessment (below).

Cumulative effects and in-combination assessment

As outlined in the Environmental Statement that accompanied the HPC Development Project (prepared by the same Applicant), cumulative effects are defined by the Institute of Environmental Management and Assessment (IEMA) as: "... *the impacts on the environment which result from incremental impacts of the action when added to other past, present and reasonably foreseeable future actions*...". By this definition, used by the Applicant, the Applicant should be accounting for issues that may arise through changing timeframes and approaches to mitigation that are associated with ongoing discussions about the AFD, as well as in-combination effects that may arise through use of intake heads without AFD technology (no assessment has been made of changes in combination with Water Discharge Activity (WDA) permit variation application). The Applicant is seeking to vary their existing permits to remove the requirement to install AFDs. This process is ongoing, following a

Public Inquiry held by the Planning Inspectorate in June 2021. Given the Applicant's intention to vary the WDA and related permissions, it would seem prudent for the Applicant to consider both scenarios of HPC operation with and without a functioning AFD. Only then can the cumulative and in-combination impacts be fully considered.

The Applicant's Environmental Appraisal states that "*Currently known marine projects (as of February 2021) within the River Parrett and lower Severn Estuary have been screened to identify any potential cumulative impact pathways. For screening purposes, a 10 km Zone of Influence (ZoI) has been used, based upon an assumed worst-case with respect to potential effects associated with the geographic extent of increased SSC due to the sediment resuspension activities of the Proposed Activities (BERR, 200844).*" This appears to be an inadequate consideration of the potential in-combination impact pathways. For example, fish from populations affected by the cooling water intakes at HPC may also be impacted in the Parrett by sedimentation. Fish are known to move between these areas (including e.g. seabass, as outlined above). Therefore, the in-combination assessment should more fully assess the in-combination effects associated with the cooling water intakes. As outlined above, the use of AFD on these cooling water intakes is the subject of a Planning Inspectorate Inquiry, and the Secretary of State is due to make a decision on the Inquiry in the coming weeks. It would be prudent to assess in-combination effects accounting for the decision made by the Secretary of State regarding the AFD, and the Planning Inspector's report which is likely to cover the projected impacts of the cooling water intakes on the marine environment (including the SAC fish assemblage).

References

1. Pickett, G. D. & Pawson, M. G. (1994). *Sea Bass: Biology, Exploitation and Conservation*. (Chapman and Hall).
2. Devon and Severn Inshore Fisheries and Conservation Authority (2016). Devon and Severn IFCA's response to the Defra call for evidence and impacts for new and existing Bass Nursery Areas.
3. Barnabé, G. (1989). L'élevage du loup et de la daurade. in *Aquaculture, vol. 2* (ed. Barnabé, G.) 657–720 (Lavoisier Technique et Documentation).
4. Devon and Severn Inshore Fisheries and Conservation Authority (2015). European Sea Bass (*Dicentrarchus labrax*) in the Inner Severn Estuary (including South Gloucestershire and Gloucestershire).