Devon and Severn IFCA

Follow-up to Applicant Comments (MLA/2023/00467)

23rd July 2024

Introduction and Scope of Response

The Inshore Fisheries and Conservation Authorities (IFCAs), including Devon and Severn IFCA (D&S IFCA), are statutory regulators. The IFCAs are responsible for the sustainable management of sea fisheries resources in English waters from baselines out to six nautical miles. D&S IFCA 's District includes waters from baselines to six nautical miles on the south and north coasts of Devon and north Somerset, and the waters of the Severn Estuary out to the median line with Wales (as shown in Figure 1). As the proposal is within and adjacent to those boundaries, and the project may generate effects which interact with D&S IFCA's core role, it is appropriate that D&S IFCA comments on the proposals.

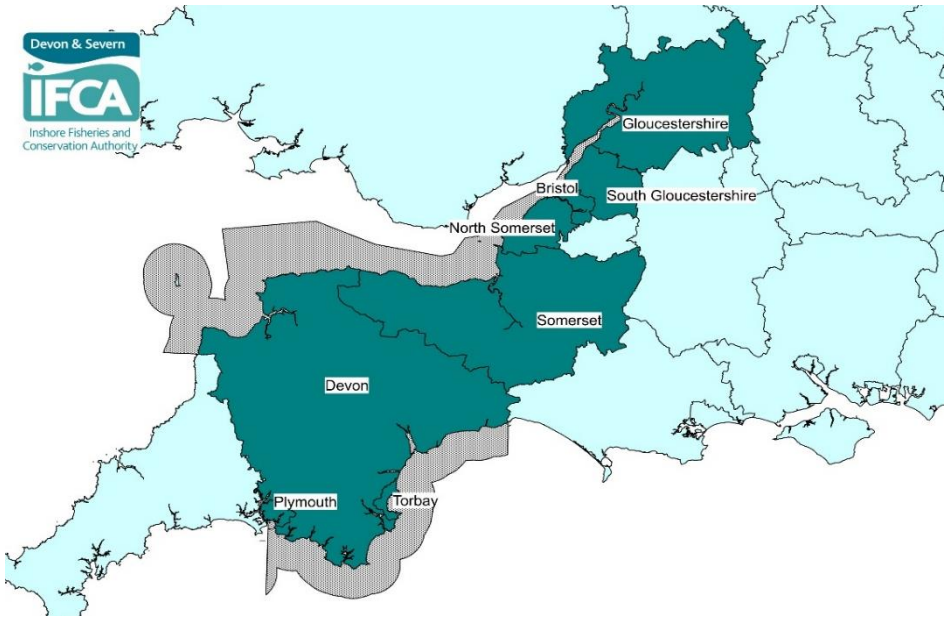

Figure 1. Map of Devon and Severn IFCA's District, showing in grey the sea area from baselines to 6nm (or the median line with Wales).

The ten regional IFCAs have a shared vision: "*Inshore Fisheries and Conservation Authorities will 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*."

The powers and duties of the IFCAs are provided by the Marine and Coastal Access Act (2009; the Act). The IFCAs' main legal duties are described in Section 153 of the Act. They must manage the exploitation of sea fisheries resources in their Districts, balancing the social and economic benefits of exploiting the resources of sea fisheries in their Districts with the need to protect the marine environment, or help it recover from past exploitation.

Under Section 154 of the Act, IFCAs must seek to ensure the conservation objectives of any MCZs in the District are furthered. IFCAs are also deemed Relevant Authorities for marine areas and EMS, under the Conservation of Habitats and Species Regulations 2017. D&S IFCA is therefore a Relevant Authority, for example, for the Severn Estuary Special Area of Conservation (SAC).

Under Section 153(2c) of the Marine and Coastal Access Act (2009) IFCAs must also take any other steps which in the authority's opinion are necessary or expedient for the purpose of making a contribution to the achievement of sustainable development when performing its

duty to manage the exploitation of sea fisheries. Furthermore, the IFCA Vision includes championing inshore fisheries, which rely on healthy, sustainable inshore populations of fish.

D&S IFCA has identified the need for an Ecosystem Approach to the management of all activities in the marine environment, including consideration of marine developments in (or otherwise affecting, e.g. via cross-border sites) its District. D&S IFCA's primary role in such matters is to ensure that fisheries, fish and fish habitat are considered thoroughly and meaningfully by marine managers and developers.

Given the potential harm to protected sites and fish populations in D&S IFCA's District, D&S IFCA responded to the general consultation on, on 13th March 2024, in order to outline its concerns in line with the context provided above.

D&S IFCA's response (available online, here) focused on concerns regarding the potential impacts to the following features of marine protected areas:

- Annex I habitats, specifically H1110 (Subtidal sandbanks) and H1140 (Intertidal mudflats and sandflats) within the Severn Estuary Special Area of Conservation (SAC)
- Severn Estuary Site of Special Scientific Interest (SSSI)
- Marine fish assemblage (sub-feature of Estuaries feature) of the Severn Estuary/ Môr Hafren SAC

Subsequently, the Applicant (via Marine Management Organisation) provided comments on D&S IFCA's consultation response. This document, in combination with the accompanying Excel workbook, represents D&S IFCA's response to those comments. The Excel workbook contains response-by-response comments in response to the Applicant, while this document provides more thorough consideration of some of the issues.

Annex I Habitats

D&S IFCA remains concerned about the level of precaution being used when considering potential impacts to the Annex I habitats (particularly H1110 and H1140). D&S IFCA believes that, based on the evidence available, and by the nature of the aggregate extraction process, the Conservation Objectives for these features will be directly impacted.

The Conservation Objective for the "subtidal sandbanks" (H1110) feature of the Severn Estuary/ Môr Hafren SAC is to maintain the feature in favourable condition (Countryside Council for Wales and Natural England, 2009). The feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:

i. the total extent of the subtidal sandbanks within the site is maintained;

ii. the extent and distribution of the individual subtidal sandbank communities within the site is maintained;

iii. the community composition of the subtidal sandbank feature within the site is maintained;

iv. the variety and distribution of sediment types across the subtidal sandbank feature is maintained;

v. the gross morphology (depth, distribution and profile) of the subtidal sandbank feature within the site is maintained

(Countryside Council for Wales and Natural England, 2009)

As outlined in the Regulation 33 advice for the Severn Estuary/ Môr Hafren SAC, in particular relating to H1110 "*The extent of the Annex 1 habitat is considered to include both the actual sandbanks and their associated sediments […] Associated sediments have been defined as any area of subtidal sand-sized sediment within the same sediment environment as a subtidal sandbank. Mobile sediments that form temporary sandbanks are considered to be associated sediments that should be retained in the system, but their location may change. Areas of holocence valley infill (relict sediment) are not mobile under present day estuarine conditions. Therefore, where Holocence infill is exposed, it is not considered to form part of the associated sediments. However, any mobile sand deposited over the infill does contribute to the associated sediments*." (Countryside Council for Wales and Natural England, 2009).

There are several key issues that arise from proper consideration of the Regulation 33 advice for the Severn Estuary/ Môr Hafren SAC. The first is to note that the advice specifies that "*Mobile sediments that form temporary sandbanks are considered to be associated sediments that* ***should be retained in the system****, but their location may change*" (D&S IFCA emphasis). D&S IFCA maintains that the process of aggregate dredging is counter to this advice, by removing associated sediments, and not allowing them to be *retained in the system*. The emphasis on within-system retention presumably relates to all of the specified sediments (subject to natural processes), meaning that sediments forming a sediment transport pathway are included.

Furthermore, D&S IFCA believes that it is important to take a precautionary approach to this activity that is consistent with the approach applied to other activities that have the potential to impact the Annex I habitats. For example, by way of comparison, D&S IFCA would like to highlight the recent case of a variation to a Marine Licence (granted by the Marine Management Organisation; MMO), regarding capital and maintenance dredging of sediment from sites within the Severn Estuary/ Môr Hafren SAC. On 20 December 2020, NNB Generation Company (Hinkley Point C) submitted a request to the MMO to vary marine licence L/2013/00178/6 for these dredging activities within the Severn Estuary/ Môr Hafren SAC, which included:

(a) An increase in the volume of capital dredge material to a maximum of 341,784 m^3.

(b) An increase in the volume of maintenance dredge to a maximum 185,000 m^3.

The variation request also included the use of the designated Portishead Disposal Site (LU070) for disposal of dredge material.

Following the MMO EIA Consent decision, conditions to be applied to the varied Marine Licence (licence number L/2013/00178/8) included that *the material to be disposed of within Portishead (LU070) disposal site must be placed within the boundaries of that site*. The reason given for this was "***To maintain the sediment budget of the Severn Estuary SAC***". This condition was included in the Marine License for the activity.

As outlined above, this condition was for a maximum total volume of capital and maintenance dredge material of 360,284 m^3, which was required to be maintained within the system. D&S IFCA argued strongly that the risk of contamination in dredged material to be disposed of at the Portishead disposal site warranted consideration of alternative disposal methods, including potential removal from the marine environment. However, regulators were keen to ensure that the sediment dredged as part of the Hinkley Point C project remained within the SAC system (particularly within the same sediment cell). It is not clear why a similarly precautionary approach is not being taken regarding the proposal by the

Applicant in MLA/2023/00467, which is to entirely remove up to a maximum of 3,750,000 tonnes from Bedwyn Sands and 3,750,000 tonnes from NMG (totalling around 5,000,000 m^3 of designated features H1110 and H1140). This is over an order of magnitude more sediment removal than that proposed by NNB Generation Company for Hinkley Point C. Disposal of dredged material within the SAC was also included as a requirement of the Development Consent Order for Hinkley Point C, and this was agreed with all of the marine statutory stakeholders (Countryside Council For Wales, Natural England, MMO and Environment Agency). There has been no change to the Regulation 33 advice for the Severn Estuary/ Môr Hafren SAC, so presumably there is still a strong need to maintain the sediment budget of the system.

In addition, in the listed "Views About Management" of the Severn Estuary Site of Special Scientific Interest, it is stated that "*The sediment budget within the estuarine or coastal system should not be restricted by anthropogenic influences*". Given the presence of a large sediment-starved zone down-estuary of the sediment pathway, D&S IFCA would again raise the question of whether dredging of surface sediment from areas of that pathway risks removal of what previous studies have suggested to be a finite resource (e.g. HR Wallingford, 2003; cited in Licence Application)? If so, does this Project (alone and in-combination with other similar Projects) pose a risk to the extent of the feature, maintenance of the variety and distribution of sediment types, or the gross morphology (depth, distribution and profile) across the subtidal sandbank feature within the site?

Finally, joint NE and JNCC advice states, specifically in relation to the Severn Estuary/ Môr Hafren SAC that the subtidal sediment features and *Sabellaria alveolata* reefs, among other features, are sensitive to several direct pressures from aggregate dredging activity, and therefore should be avoided as outlined in the hierarchy of approach (Atterbury *et al.*, 2021). The first step in this hierarchy is avoidance of MPAs: "*Natural England and JNCC recommend that MPAs should be avoided in their entirety for aggregate extraction, as this avoids the direct impacts on the conservation features within the MPAs. This also carries the least environmental consenting risk*". This is followed by "*Avoid sensitive features within MPAs*", then "*Avoid areas where there are existing cumulative impacts on sensitive features of MPAs and/or MPAs that are in unfavourable condition*", with the rationale that "*In areas where other marine activities are frequent, the ability of sites to withstand pressures may already be reduced. This often results when a site or a feature within a site is considered to be in unfavourable condition or has a restore or recover conservation objective to ensure that they return to favourable condition. If features or sites are already in an unfavourable condition, additional impacts will likely be detrimental on the conservation objectives of those sites. Although different activities will vary in impact, any additional pressures may increase the sensitivity of conservation features and sites*."

<u>Defining, and Assessing Against, a Baseline Environment</u>

In D&S IFCA's original consultation response, D&S IFCA highlighted some assertions by the Applicant including that "*the duration of the impact associated with dredging in the Renewal Areas is considered intermediate (throughout the duration of the 15-year licence period) as it will be intermittent in nature, resulting in a medium probability of occurrence.*", and noted that D&S IFCA considers that the duration of the impact is not simply the 15-year licence period but will be a cumulative effect taking into account the dredging that has occurred at Bedwyn Sands since 2008, and at North Middle Grounds since 2011.

In response (specifically, in response via the NRW consultation process), the Applicant has stated that "*This marine licence application to NRW is for the proposed renewal of the*

existing Welsh marine licence to dredge aggregates from Bedwyn Sands and NMG for a proposed licence period of 15 years. ***This renewal application needs to be treated as an entirely new and separate application in its own right. In accordance with standard EIA methodology and the EIA Regulations, the assessment has assessed the impact of the proposed activities*** *associated with the licence renewal (i.e.,* ***over a 15 year licence period****) against present day conditions* ***(i.e., the baseline environment). The present day conditions therefore will take account of the condition of the site as a result of past dredging that has occurred at Bedwyn Sands and NMG due to past licenced activity***." (D&S IFCA emphasis).

D&S IFCA also highlighted that the Application "*refers to a five year substantive review (5YSR; document R.3836), in which a "baseline" has been compared to recent survey data, for example in terms of particle size distribution (PSD) and macrofaunal presence across the dredged areas and adjacent "context" areas. Firstly it should be noted that the few years of dredging considered in the report are at lower levels than the levels of aggregate extraction proposed or projected in the licence. This makes projections of future impact difficult to infer from the data presented. In addition, Bedwyn Sands has been dredged since 2008, while NMG has been dredged since 2011, meaning that the 2016/17 "baseline" considered in the 5YSR is far from an appropriate baseline. Therefore, it is not possible to know what damage may have been caused to the habitat feature or associated communities (including Sabellaria) since dredging began, or whether ongoing dredging is preventing re-establishment.*"

In response, the Applicant has stated that "*The purpose of including a summary of the Five-year substantive review (ABPmer 2022) is to provide a baseline description of the biotopes and macrofaunal species present at Bedwyn Sands and NMG against which the proposed activities can be assessed*" and that "*The baseline is not the condition of the environment before any dredging activity at Bedwyn Sands and NMG began. In accordance with standard EIA methodology and the EIA Regulations, and as described in Section 4 of the ES, the baseline environment is defined as the present or current state of the environment. The baseline description should therefore take account of existing natural and anthropogenic pressures that are currently influencing the benthic habitat and species that are present at a development site. This is a critical part of the EIA process as it provides a measure against which potential environmental effects can be assessed*".

However, this is contrary to the approach taken to the regulation of other activities in the marine environment, and appears to be contrary to the requirements of the Habitats Regulations and achievement of the Conservation Objectives of the Severn Estuary/ Môr Hafren SAC. For example, if assessing the impacts of fishing activities within a Marine Protected Area (MPA), the regulator would be required to assess fishing impacts on habitats relative to favourable condition status, and ensure through their assessment and management approaches that the fishing activity would either allow for the designated habitat to be maintained in favourable condition, or would not hinder the recovery of the designated habitat to favourable condition. This emphasis on favourable condition is important, and does not appear to be emphasised in the Applicant's approach in this case.

Favourable condition targets for SAC features are defined in the Regulation 33 package for the Severn Estuary/ Môr Hafren SAC, and these define a specific baseline against which change should be measured. It is not clear, therefore, why the applicant uses a different 'present day' baseline, which leaves site assessments highly vulnerable to 'shifting baseline syndrome': a gradual change in the accepted norms for the condition of the natural

environment due to lack of consideration of past information or lack of experience of past conditions.

Estimation of impact

In the original consultation response, D&S IFCA highlighted that PSA analysis presented in R2807 only has two sampling points within the extraction area (one of which is an exclusion zone), with multiple sampling locations outside of the extraction area. Future analysis of both PSA and macrofauna is likely to benefit from more thorough sampling across dredged areas; this could involve multiple samples from individual sampling points, which would help in quantifying existing fine-scale spatial variation in both PSA and faunal assemblages, and in distinguishing this from temporal change in these variables. The Applicant has responded to say that "*The PSA approach to the previous annual monitoring (prior to the licence renewal in 2017 and to which Report R.2807 refers) analysed 14 sample locations spread across Area 455/459 and the Bedwyn Sands site. Following the 2017 licence renewal, an RSMP approach has since been adopted (with a site-specific sampling plan devised by Keith Cooper at Cefas). This RSMP approach now collects and analyses PSA (and macrobenthos, as required) from 95 sample locations across the region, including within PIZ, SIZ, Reference and Context areas*."

While the sampling methodology may adhere to the conditions highlighted by the Applicant, D&S IFCA maintains that PSA analysis presented in R2807/ Figure 15 of the 5YSR demonstrates poor sampling methodology which is not sufficient to capture changes in macrofaunal assemblages due to very low number of sampling points for macrofauna within the dredged area (i.e. the statistical power to detect any change is very low). Therefore, there is no real scope for a robust comparison between dredged and un-dredged areas. This is a key aspect of monitoring that would need to be substantially improved if the licence is granted. There needs to be a means to assess macrofauna with high confidence, which the previous RSMP style monitoring has not provided; this approach would require robust, systematic sampling across both dredged and undredged areas, repeated over time.

The Environmental Statement states (in relation to the 5YSR) that "*In 2020, the only grab sample stations which displayed any notable changes in community structure and abundance were limited to those outside the Renewal Areas*." This is not surprising given that **only two macrofaunal samples were taken within the renewal areas, and one of those was within an exclusion area**. Despite what has been claimed in the applicant's responses (via NRW and MMO), the sampling methodology is clearly not sufficient to detect change with high confidence, and is very limited in comparison to the sampling required by, for example, other regulators when considering management of fishing activity in MPAs, or when conducting condition assessments of designated features. Given that the proposal is taking place on designated features, the sampling methodology should be robust enough to provide high statistical power to detect changes with high confidence (either before or after dredging or between dredged and control sites).

The 5YSR states that "*S. alveolata was also found at stations 341 and 376 however, at each station, only a single individual was recorded and therefore S. alveolata was not found in significant numbers. Despite station 376 being within the Bedwyn Sands Licence area, dredging activity is not considered to impact S. alveolata at either of these locations due to the low numbers of S. alveolata recorded and the species is not considered to constitute an Annex 1 reef feature in these locations*." However, figure 14 of the 5YSR shows that no

sample was taken at station 376 in 2017 so the potential impact of dredging on Sabellaria is unknown, particularly as limited sampling in areas of low lying Sabellaria reef may not be expected to find many individuals. Furthermore, as dredging has occurred at Bedwyn Sands for many years prior to the "baseline" monitoring, it is not clear if Sabellaria has previously been impacted and is now being prevented from recovering. This is related to issues discussed above regarding shifting baseline syndrome, and the need for monitoring in line with that required for condition assessments and assessment against favourable condition targets.

In the NRW consultation process, the Applicant has responded to D&S IFCA, stating that "*The aim of the RSMP is not to determine the potential impact of current and past dredging activity on benthic habitats species. As noted in response to comment no. 27* [in the NRW consultation log]*, the aim of the RSMP is to monitor the condition of the seabed and ensure it can support recolonisation.*" However, regardless of the aim of the RSMP, given the designated nature of the sediment features there should be monitoring in place that considers short to long term impacts on achievement of Conservation Objectives, including for Annex I habitats and related fauna.

References

Atterbury, A., Canning, S., Dinwoodie, K., Hall, R., Piesinger, N., Stewart, D., Thorpe, E., *et al.* 2021. Natural England and JNCC guidance on key sensitivities of habitats and Marine Protected Areas in English waters to aggregate resource extraction.

Countryside Council for Wales, and Natural England. 2009. Severn Estuary SAC, SPA and Ramsar Site. Natural England and Countryside Council for Wales' advice given under Regulation 33 (2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994, as amended.

HR Wallingford. 2003. Dredging Sand from North Middle Grounds (Areas 455 and 459) and Bedwyn Sands, Welsh Grounds. Environmental Statement. Report EX 4574.