Devon and Severn IFCA response to MMO consultation for Hinkley Point UXO clearance, Severn Estuary SAC, *MLA/2019/00241*.

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 powers and duties of the D&S IFCA are provided by the Marine and Coastal Access Act (2009). 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 D&S IFCA response, below, focuses on seafish and habitat features rather than migratory fish (salmon, sea trout, river and sea lamprey, twaite and allis shad and European eel). The Environment Agency is responsible for the management of migratory fish and fisheries relating to these species. The Devon and Severn IFCA fisheries expertise relates to the English waters of the Severn Estuary, although comments on fish and habitats are more generic to the Severn as a whole.

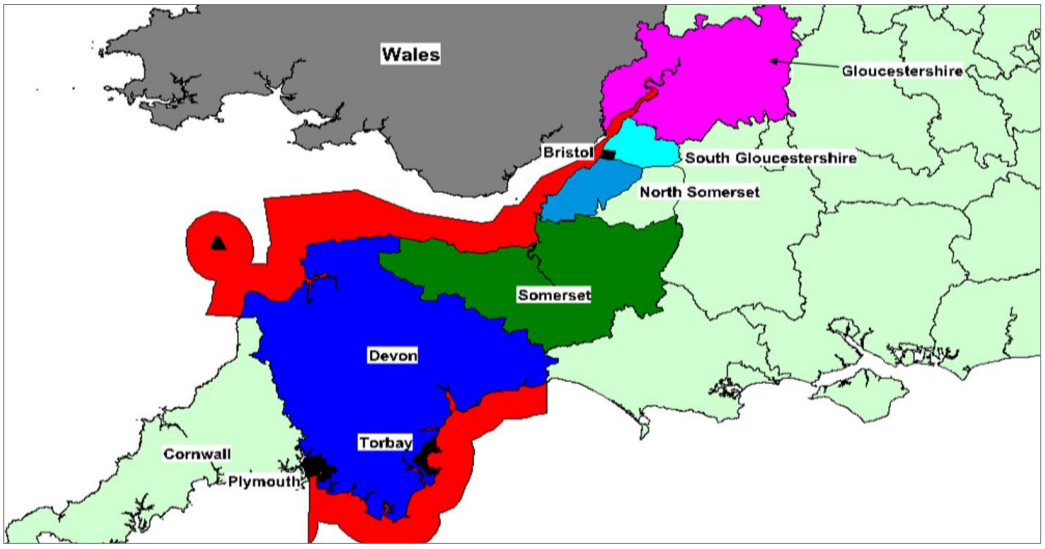

Figure 1. Waters of Devon and Severn IFCA's District (red shading).

Devon and Severn IFCA has some concerns relating to the estimated impacts on fish and on Sabellaria reef. The fish assemblage is a designated sub-feature of the Estuaries feature of the Severn Estuary Special Area of Conservation (SAC), and the *Sabellaria* is a primary component of the Reefs designated feature. Throughout this response, and any consideration of the MLA, it should be noted that there has been little research undertaken on subtidal *Sabellaria alveolata* reefs, so the scientific information on their sensitivities is extremely limited.

The importance of different habitats to fish in the Severn Estuary is largely unknown, though in other locations subtidal *Sabellaria spinulosa* has been found to be an important habitat for fish (Pearce at el., 2013). The discovery of *Sabellaria* in target areas for the proposed activities raises concerns about the impacts on *Sabellaria* in the region, and on dependent

fish species. D&S IFCA is aware that previous MLAs, for activities that have the potential to impact patches of *Sabellaria* in the Severn Estuary*,* have committed to the establishment of exclusion zones for the proposed activity to avoid areas of *Sabellaria*. This is an appropriate response to the presence of this important biogenic reef feature, which is a designated feature of the SAC. This is particularly important given that the objective under the Habitats Regulations is to maintain the distribution and extent of this feature in the Severn Estuary SAC. By the nature of the UXO clearance process, these objectives will be directly impacted.

The ES for this MLA states that only a small proportion of the *Sabellaria* within the SAC will be affected, citing the proposed *Sabellaria* coverage suggested in the Nature 2000 standard data form for the site. The ES further states that "the percentage of Annex I Sabellaria reef which may be affected with the UXO clearance working area is very small and the range of effect is likely to be small in the context of the wider prevailing *Sabellaria* coverage in the Severn Estuary SAC". However, the advice from Natural England under Regulation 33(2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) states that the exact distribution of subtidal *Sabellaria* reef in the Severn Estuary is unknown, partly due to the difficulties in sampling this habitat. Given that the distribution of Sabellaria is poorly known throughout the SAC, it would be inappropriate to allow the destruction of known *Sabellaria* in one of the few areas in which its distribution has been better quantified. This is especially true given the known importance of biogenic reefs for biodiversity (Holt *et al.,* 1998; Dubois *et al.,* 2002), and their designation as an Annex I habitat that is required to be maintained. Furthermore, the recruitment of *Sabellaria* can be highly variable, which makes the species more vulnerable to external pressures such as that proposed in this MLA (Wilson, 1974). This is an important consideration alongside evidence presented in the ES appendices that full recovery of Sabellaraia reef "to a state similar to the pre-impact condition of high adult density and adult biomass is suggested to require three to five years where recruitment is annual (Pearce *et al*., 2007)".

The ES and relevant Appendix for this MLA have outlined the potential distribution of high- and low-elevation *Sabellaria* reef, with an implication that low-elevation reef may be less valuable. However, it should be noted that the advice from Natural England under Regulation 33(2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) states that subtidal *Sabellaria* reef in the Severn Estuary is likely to "exhibit reduced growth forms (lower elevation) in comparison to the intertidal reef habitat", but that *Sabellaria* "reefs cycle through several different phases, all of which are considered important for biodiversity". It should also be noted that the subtidal *Sabellaria alveolata* reef in the Severn Estuary is of national importance, and is the only extensive subtidal *Sabellaria alveolata* reef in Britain.

Regarding impacts on the fish assemblage, which is a designated sub-feature of the broader Estuaries feature of the Severn Estuary SAC, there are several areas of concern. The recognised range for mortality or mortal injury to fish may 619m from the source (explosion). Given an impact zone with ~1240m diameter, this represents potential mortality across approximately 6% of the width of the estuary at the location of the activities. As recognised by the ES, fish that survive this impact will be prone to recoverable injuries and temporary hearing loss (TTS). These injuries have the potential to cause mortality, for example when combined with poor body condition or predation. The ES has not quantified the potential numbers of fish that may be affected by these activities. However, any estimate of fish kill should be understood in combination with the other activities associated with this MLA – including the main activity for which this activity has been proposed, namely to allow the installation and operation of water intakes for direct cooling, which are projected to kill large numbers of fish. The applicants have suggested mitigation measures to control the impact on fish, and suggest that the implementation of these will reduce the impact to a 'minor

adverse impact', that is 'not significant in EIA terms'. For example, the applicants state that it is expected that soft-start charges would have a deterrent effect on fish. Unfortunately, this claim has not been supported by evidence, so the likely efficacy of this measure is unclear. The applicants suggest the use of Acoustic Deterrence Devices (ADDs) to deter marine mammals from the area, and suggest that these will also work to deter fish; however, no evidence has been presented of the efficacy of ADDs in deterring fish. In particular, the type of ADD cited by the applicants, and in general those designed to deter marine mammals, are regularly used in wild-capture and mariculture fisheries, and so would not be expected to deter fish (which would otherwise not approach the fishing gear).

Finally, the applicants state that the commencement date for this work (October 2020) means that the clearance work will not occur during the identified sensitive period for migratory fish species (spring). However, this should be reconsidered given that the work has not started during October 2020, and that autumn/ winter activities may be problematic for other species, including autumn- and winter-spawning populations of herring, which spawn locally.

References

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