

Appendix B - Marine

We disagree that the assessment has considered a worst-case scenario for marine impacts as:

- There is no adequate evaluation of the habitat present in and around the project area.
- There is no indication of the total level of damage to seabed from boat movements, anchorage and jack up barges.
- There is no assessment for a worst-case scenario for jetty construction and the scope of works required is still not clear.
- Noise impact modelling on marine mammals is not complete and relevant features not correctly assessed.

Please note that where we refer to “points” below, it is with reference to the table submitted by Egnedol as part of their submission to you of 29th September 2017.

HABITAT IMPACTS

Point 3

The worst-case scenario for the jetty construction is still not considered, including a consistent lack of clarity within documents on what are realistic works or worst case scenario works. We raised this previously in our representation dated 07th September 2017. With regards to the use of dolphins you state: *“If these works were to be implemented, none of the existing structure would remain and a completely new jetty would be in place with the addition of berthing dolphins.”* This was not considered within a worst-case scenario. The worst-case scenario should consider the addition of dolphins in combination with removal of all jetty structures, the footprint of such damage, permanent loss, likely impact of habitat feature (once surveyed), suspended sediments etc.

Point 9

We do not agree with this section; the impact pathways are not suitable and there is little understanding of pathways of impact on Special Areas of Conservation (SAC) species and habitats; further detail is provided below for specific impacts and habitats.

Point 10

The permanent loss from the dolphins may be insignificant considering all the area of the habitat feature which would be estuary and large shallow inlet and bay, not intertidal mudflat as suggested by the applicant (intertidal mudflat would likely be affected by other jetty construction works). However, the impact on both features has not been assessed with regards to the quality of the habitat lost as the survey which was carried out was inadequate and does not indicate the habitat types in the area. There would be further damage to the features from jetty construction and vessel movements and the overall impacts on intertidal mudflat, estuary and large shallow inlet and bay habitat features from the whole project (worst case scenario) has not been assessed.

Point 11

Egnedol state *“This is only true for part of the site as the section of the jetty that is further south (close to the mid channel of the haven) is submerged by seawater even at low tide – the latter type of habitat is not part of the SAC designation.”* This statement shows a lack of understanding of the SAC habitat features. The entirety of the marine project footprint is within a SAC habitat feature: intertidal mudflat, estuary and large shallow inlet and bay. The comments in the rest of this section are largely irrelevant as the applicant only considers intertidal mudflat as a SAC feature.

We reiterate that the drop-down survey was not of sufficient quality to provide us with any information on habitats likely to be affected by the construction works.

Point 16

Our comments remain. The advice provided in our representation dated 7th September 2017, on the correct SAC habitat features to consider, does not appear to have been taken into account.

Points 21 - 23

For a drop-down video survey to be adequate, the quality of the images needs to be sufficient to be able to gain an understanding of the fauna and flora of the habitat. There is currently no information presented on biotopes present, their range and extent within the project footprint.

Point 24

Egnedol have provided further information on vessel use and movements which is useful but this information has not been taken into account to present an overall worst-case scenario evaluation of potential impacts to the sea bed. For example, it has not been considered how many temporary moorings would be in place and where would they be, and the overall footprint of the jack-up barges once they have been moved around to aid in jetty repair works. Again, there is no indication of the habitat type which would be affected by any of these works and their total extent. The estuary and large shallow inlet and bay habitat features are composed of a mosaic of habitat types which altogether contribute to the diversity of the habitat features. Some habitats are more sensitive or resilient than others and this assessment of the habitat type, the sensitivity and subsequent recoverability should have assessed likely impacts.

Point 28

By stating that only a small amount of habitat would be lost is not sufficient to consider no likely impact on the SAC. As discussed above, the loss of habitat needs to be contextualised against the habitat present, quality of the habitat, sensitivity and recoverability, other habitat losses within the Haven for the habitat feature and likelihood of future losses to fully understand the permanent loss of habitat and the subsequent HRA conclusions for this impact.

Point 43

In our representation dated 7th September 2017 we were pointing out that no assessment had been undertaken for the two lamprey SAC species features, not just noise assessment. Also, Egnedol does not clarify why a distance of 262m has been used for the shad noise assessment.

Point 44

Issue resolved. No further comments on water quality.

MARINE MAMMALS

Points 9 and 12

Egnedol state “*With respect to mammals the noise model clearly shows that the noise levels would drop to background levels within the haven for pinnipeds (seals). Pinnipeds are more sensitive to low frequency sounds, such as that produced by piling, than porpoises and other cetaceans; therefore, no impact was assumed in the relevant area for harbor porpoise.*”

“In line with the adoption of worst case construction scenario, the noise model clearly shows that the noise levels would drop to background levels within the haven for pinnipeds (seals). Pinnipeds are more sensitive to low frequency sounds, such as that produced by piling, than porpoises and other cetaceans; therefore, no impact was assumed in the relevant area for harbour porpoise.”

We maintain our previous comments that the assessment and noise modelling presented is incomplete and inaccurate. Important SAC features have not been assessed, such as the harbour porpoise, a feature of the West Wales Marine cSAC.

The noise modelling in the EIA was based on seals and not cetaceans. Seals are considered more sensitive to noise (Southall *et al* 2007¹) but it is not true that impact of piling noise is less likely for porpoise. It is well established that porpoise respond strongly to piling noise (which is broadband) which might be a result of loudness, rise times and other noise features rather than just frequency e.g. see Kastelein *et al* (2013); Dahne *et al* (2013) and Tougaard *et al* (2009) who indicate that porpoises are displaced from piling noise up to 15-25km and 18-21km respectively.

Importantly, one of the Conservation Objectives of West Wales Marine cSAC concerns noise disturbance. The data presented only concerns injury (in the form of Permanent Threshold Shift – auditory injury) and rules out an effect on this SAC based on injury. Disturbance should have been considered to enable the sHRA to assess impacts in view of the conservation objectives.

The piling is understood to be short term, but the schedules of piling (worst case) need to be presented to fully assess this. From the comments, it seems that the piling duration may be quite minimal, and therefore we would expect a proportionate approach to this low level of piling. As such, we would not expect there to be any significant disturbance to SAC features.

¹ http://csi.whoi.edu/sites/default/files/literature/Full%20Text%20Part%20I_1.pdf

However, there is a potential to injure individual EPS cetaceans, and as such we believe Egnedol should have followed the standard guidelines for piling mitigation²

Points 29-31

Concerning the advice to use Marine Mammal Management Units:

Egnedol state that, *“Impact on European sites that are further than 20km from the proposed site were screened out on the basis that the planned works physical intervention during the construction phase is very localized.”*

“Given that the impact from noise to the harbor porpoise, the feature of the distant cSAC / SAC, is limited to PTS @ 190m (potential to cause injury to marine mammals and fish (PTS Threshold)) and TTS @ 260m from the jetty (temporary hearing loss (TTS threshold)), it is the correct technical approach to exclude SACs and SPAs that are beyond this distance.”

The protective effect of SACs goes beyond its boundary and projects outside of sites need to consider their effects on mobile features outside of their sites. That is why Marine Mammal Management Units have been created. We advise on their use in all projects and they are typically applied without issue by all project applications. That means that we require the provision of evidence that applicants have ruled out SACs beyond reasonable doubt based on the best available evidence.

The predicted injury contours do not overlap with a SAC this does not however, mean that there is no chance of a Likely Significant Effect (LSE) on a feature of a site outside of that contour. Furthermore, mobile features from the SACs, could occur within the predicted injury zones and therefore be subject to disturbance and injury. Because

All SACs with marine mammal features within the relevant management unit should be screened in, as per previous advice.

Points 32-34

Concerning seal and cetacean presence in the development area.

Egnedol state that *“SeaWatch data is the most detailed source available for estimated abundance and distribution of marine mammals in the area. Their survey methodology adheres to standard marine mammal survey techniques. Other searches were undertaken to gather a more detailed picture of the species presence in the area with no success.”*

“Whilst presence is documented around the Skomer and Ramsey Islands, there is no evidence at the time of assessment that they highly likely to be present in the Haven. Tagging data (appendix 8.2 figure 114 of the marine EIA) clearly shows that seals are concentrated around Skomer and Ramsey Islands.

² http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Piling%20protocol_August%202010.pdf

This data is the best scientific knowledge in the field.”

“This is because cetaceans are not reported as being present inside the Haven.”

These statements are inaccurate. Sea Watch data of sightings is entirely dependent on effort, and they do not routinely collect data on seals. Without being shown the data it is difficult to see whether there has been any effort in the Haven. Without this, we are unable to assess whether there is in fact evidence of absence of seals and cetaceans in the area.

For seals, seal tracking data shows a lot of data points around Skomer and Ramsey because that is where animals were tagged. Travel/foraging ranges estimated from satellite tracked seals indicate the Haven is well within the travel distances undertaken by weaned pups and adults. Therefore, their presence should not be ruled out, and it is assumed that any seals present would almost certainly be from the Pembrokeshire Marine SAC.

Points 35-36

Our previous comments provided in our representation of 7th September 2017 are still valid.

Points 37-40 (mitigation)

Egnedol state that *“Piling at low tide will be sufficient mitigation as in 2-5 m water there is no scope for the propagation of noise.*

Therefore JNCC mitigation or use of other piling techniques is not actually required as mitigation.”

“Whilst vibro-piling is lower in noise source level, it takes more time to drive piles with this method; therefore, the exposure time would significantly increase.”

“Seasonality is only relevant if any impacts are found in relation to the harbour porpoise, which they are not.”

This is inaccurate as the noise modelling presented in Enclosure C indicates that there is a potential for injury of cetacean EPS within <200m, and as such standard piling mitigation would be required. This is considered good practice.

Whilst we agree that vibro piling will take longer and therefore increase the duration of disturbance, the point of using vibro piling is to reduce or eliminate the risk of *injury* to marine mammal species. An increase in disturbance is therefore potentially acceptable if the alternative is a risk of injury without mitigation.

As stated above, there are potential impacts to harbour porpoise, so seasonal timing of piling schedules is relevant.