Havant
BOROUGH COUNCIL

Coastal
Partners

Appendix A2 - MMO Scoping opinion May 2021

Marine
Management
Organisation

Scoping Opinion

Marine Works (Environmental Impact Assessment) Regulations 2007 ("the Regulations")

Title: Langstone Flood and Coastal Erosion Risk Management Scheme

Applicant: Coastal Partners

MMO Reference: EIA/2021/00002

Contents

1 Proposal 3
1.1 Project Background 3
2 Location 3
3 Environmental Impact Assessment (EIA) 4
4 Scoping Opinion 5
4.1 Conservation of Habitats and Species Regulations 2017 5
4.2 Other Nature Conservation 6
4.3 Benthic Ecology 9
4.4 Coastal Processes 9
4.5 Seascape / Landscape 11
4.6 Fish Ecology and Fisheries 12
4.7 Shellfisheries 15
4.8 Archaeology / Cultural Heritage 15
4.9 Navigation / Other Users of the Sea 16
4.10 Seabed Ownership 17
4.11 Air Quality & Climate 18
4.12 Water Quality 18
4.13 Seabed / Land / Soil Quality 19
4.14 Population and Human Health 20
4.15 Cumulative Impacts & In-Combination Impacts 21
4.16 Risk of Major Accidents and Disasters Relevant to the Project (including those caused by Climate Change) 22
5 Conclusion 23
6 References 24

1 Proposal

Langstone Flood and Coastal Erosion Risk Management Scheme

1.1 Project Background

Coastal Partners (previously Eastern Solent Coastal Partnership), on behalf of Havant Borough Council (HBC), have secured funding to develop designs for a new coastal defence scheme to protect homes from flooding and erosion in Langstone, Hampshire.

An outline design has been prepared for both a Core and Additional Scheme. The main works below mean high water springs (MHWS) for the Core Scheme is anticipated to involve the footings of an accessible path (approximately 150 metres 'm' length) and potentially a new quay wall if required for structural stability. Within the Additional Scheme, if progressed, works below MHWS are likely to be required including placement of rock armour at the end of the spit (approximately 40m length) and refurbishment of the existing sea wall and revetment. Access to the foreshore to complete all the works may also be required within a wider area across the Scheme. Construction of the Core and the Additional Scheme if (progressed) is currently anticipated to take place in two phases during Summer 2023 and Summer 2024.

2 Location

Langstone is situated on the south coast of England, within the borough of Havant in the county of Hampshire. Langstone lies just north of Hayling Island. The borough lies between Portsmouth in the west and Chichester in the east and is serviced by the A27 from the east and west, the B2149 from the north and the A3023 from the south. The Scheme frontage is adjacent to Langstone Harbour to the west and Chichester Harbour in the east. The location of the Scheme is displayed in Figure 1 below.

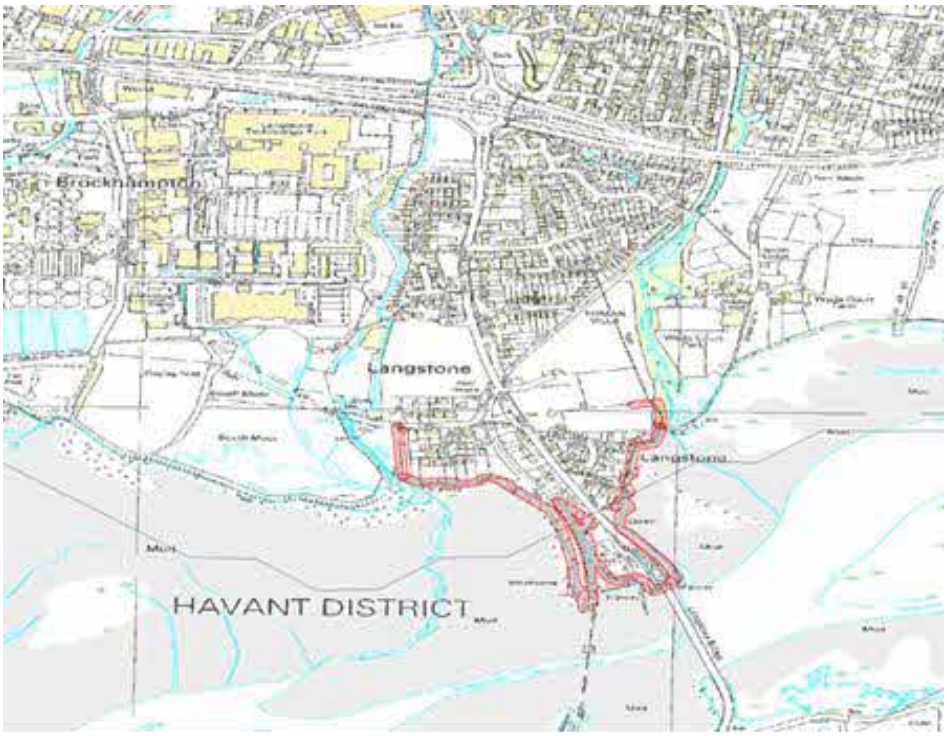

Figure 1: Site map showing the location and extent of the Langstone Flood and Coastal Erosion Risk Management Scheme

3 Environmental Impact Assessment (EIA)

The Marine Works (Environmental Impact Assessment) Regulations 2007 ("the Regulations") transposed Council Directive 2011/92/EU (as amended) into UK law for marine licence applications. The regulations aim to protect the environment and the quality of life by ensuring that projects which are likely to have significant environmental effects by virtue of their nature, size or location are subject to an EIA before permission is granted.

Pursuant to regulation 5 of the Regulations, it was agreed between the Marine Management Organisation (MMO) and Coastal Partners that the proposed works constitute an EIA development under Schedule A2 (69)of The Marine Works EIA Regulations 2007 (as amended) ("the Regulations"), specifically:

*Schedule A2, paragraph 69**:** **'**Coastal work to combat erosion and maritime works capable of altering the coast through the construction of, for example, dykes, moles, jetties and other sea defence works, excluding the maintenance and reconstruction of such works'*.

Therefore, the application required for the proposed works for a marine licence under Part 4 of the Marine and Coastal Access Act 2009 ("the Act") will be accompanied by an Environmental Statement ("ES").

4 Scoping Opinion

Pursuant of regulation 13 of the Regulations, Coastal Partners as requested a Scoping Opinion from the MMO. In so doing a Scoping Report entitled "Langstone Environmental Scoping Report" has been submitted to the MMO for review.
The MMO agrees with the topics outlined in the scoping request and in addition, we outline and advise that the following aspects be considered further during the EIA and must be included in any resulting ES.

Habitats Directive / Wild Birds Directive
Other Nature Conservation
Benthic Ecology
Coastal Processes
Seascape / Landscape
Fish Ecology and Fisheries
Shellfish
Archaeology / Cultural Heritage
Navigation / Other Users of the Sea
Air Quality & Climate
Water Quality
Seabed / Land / Soil Quality
Population and Human Health
Cumulative Impacts & In-Combination Impacts
Risk of Major Accidents and Disasters Relevant to the Project (including those caused by Climate Change)
Mitigation

4.1 Conservation of Habitats and Species Regulations 2017

4.1.1 The development site is within the following designated nature conservation sites:

Solent Maritime Special Area of Conservation (SAC)
Chichester and Langstone Harbours Special Protection Area (SPA)
Chichester and Langstone Harbours Ramsar

4.1.2 As the development is within conservation sites it cannot be excluded, on the basis of the objective information supplied, that the proposed works may have significant effects on the Solent Maritime SAC, Chichester and Langstone Harbours SPA, and Chichester and Langstone Harbours Ramsar. MMO advise that the applicant provides sufficient information to provide full assessment of impacts and justification of any conclusions (this can be done through the submission of a shadow HRA). The considerations that have led MMO to this view can be summarised as follows (but not limited to):

Temporary disturbance/ habitat loss of the intertidal foreshore and functionally linked landward supporting habitats for non-breeding birds.

Changes in suspended sediment altering water clarity and leading to deoxygenation, smothering and siltation rate changes.

Potential hydrocarbon and Polycyclic Aromatic Hydrocarbons (PAH) contamination.

Permanent loss and shading of intertidal (supporting) habitat from the footprint of the proposed new flood defences and due to longer term coastal squeeze.

Noise and visual disturbance to over-wintering birds, and foraging and breeding terns/ prey species.

4.1.3 The ES must include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and must identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects. To this end, the MMO recommend the applicant make use of Natural England's European site conservation objectives, available at the following link: http://publications.naturalengland.org.uk/category/6490068894089216

4.1.4 Further to the above MMO advise that the following measures may be recommended by Natural England to avoid or prevent significant adverse effects from some of the impacts discussed above.

Works take place April to September (inclusive) and works during the overwintering bird season are avoided.

4.1.5 Further information regarding the HRA process and when mitigation can be considered is available on the MMO's website, please find a link provided below: https://www.gov.uk/guidance/marine-licensing-impact-assessments#habitats-regulations-assessment. The website outlines the information required in a marine licence application.

MMO considers this development has the potential to adversely affect populations of breeding and non-breeding birds. MMO, therefore, recommend that a detailed assessment of the impacts of this proposal on these protected species, accompanies any subsequent marine licence application. In order to provide this information, there may be a requirement for surveys to be carried out at appropriate times of the year. Surveys must always be carried out by suitably qualified and, where necessary, licensed consultants. Further information is included in Natural England's standing advice https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications on protected sites and species https://www.gov.uk/topic/planning-development/protected-sites-species

4.1.6 The Scheme is located within a complex site encompassing a major estuarine system with functionally linked estuaries and dynamic marine and estuarine habitats. This includes extensive areas of intertidal mudflats and sandflats, often supporting eelgrass (Zostera species), subtidal sandbanks, saltmarsh and natural shoreline transitions such as drift line vegetation. The Solent Maritime SAC is the only site to support all four species of cordgrass (Spartina) found in the UK, including the rare native small cordgrass (Spartina maritima) (Natural England, 2020).

4.1.7 Both the Core and Additional Scheme have the potential to affect marine ecology, and the Environmental Scoping Report November 2020 Recommendations for further work are agreed.

4.2 Other Nature Conservation

4.2.1 The information supplied suggests that the proposed development is located within/ partly within or has the potential for adverse effects on the following designated nature conservation sites or designated landscapes:

Chichester Harbour Site of Special Scientific Interest (SSSI)
Langstone Harbour SSSI
Chichester Harbour Area of Outstanding National Beauty (AONB)

Site of Special Scientific Interest (SSSI)

4.2.2 Further information on the location of SSSIs and their special interest features can be found using Natural England's interactive mapping tool, MAGiC maps. Please find a link provided here for convenience: www.magic.gov.uk . The ES must include a full assessment of the direct and indirect effects of the development on the features of special interest within Chichester Harbour SSSI and Langstone Harbour SSSI, and must identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

4.2.3 Further information on the special interest features, the conservation objectives, and relevant conservation advice packages for designated sites is available on Natural England's website https://designatedsites.naturalengland.org.uk.

Marine Conservation Zones (MCZ)

4.2.4 MMO can confirm there are no MCZs with the development site within 5 kilometres (km) radius.

Regionally and Locally Important Sites

4.2.5 The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The ES must therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment must include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

Protected Species - Wildlife and Countryside Act 1981 (as amended)

4.2.6 The ES must assess the impact of all phases of the proposal on protected species (for example, pinnipeds (seals), cetaceans (including dolphins, porpoises whales), fish (including seahorses, sharks and skates), marine turtles, birds, marine invertebrates, bats, etc.). Information on the relevant legislation protecting these species can be reviewed on the following link: https://www.gov.uk/government/publications/protected-marine-species.

Please note that Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species must be sought from appropriate local biological record centres, nature conservation organisations, NBN Atlas, groups and individuals; and consideration must be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

4.2.7 MMO agree with the recommendations for further work set out in section 4.7.3 of the report (Marine Ecology).

4.2.8 The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal must be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

4.2.9 In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys must always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted standing advice for protected species which includes links to guidance on survey and mitigation available at: https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications

Habitats and Species of Principal Importance

4.2.10 The ES must thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity.

4.2.11 Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration…in the making of planning decisions'. MMO therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance must be included in the ES. Consideration must also be given to those species and habitats included in the relevant Local BAP.

4.2.12 MMO advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys must be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement must include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

4.2.13 MMO would recommend that the Applicant considers opportunities for habitat creation and/or enhancement. Guidelines for Ecological Impact Assessment (EcIA) have been

developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

4.2.14 The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 174), which should be demonstrated through the ES.

4.3 Benthic Ecology

4.3.1 MMO consider that the proposed scope of the ES will be adequate given the information provided in the report regarding the focus of the subsequent ES.

4.3.2 In view of the details submitted MMO can ascertain in terms of what the project involves and its implications for marine ecology (and marine benthic ecological features in particular). MMO consider the conclusions regarding the impacts, and the subsequent scoping of the various impacts to marine ecology (Table 4.13 of the ES), to be suitable.

4.3.3 A suite of suitable data and literature sources have been reviewed to conduct a baseline assessment of the marine benthic species and habitats in the immediate vicinity of the project. MMO consider these, taken together, to form an adequate description of the baseline from which the scoping exercise can be conducted. MMO support the notion of a Phase II intertidal habitat survey to determine the biotopes present along the frontage including the access route across the intertidal area to Mill House to be conducted as part of future work (Section 4.7.3 of the ES).

4.3.4 Several mitigation measures relevant to benthic ecology are presented (Section 2.4 of the ES) and MMO would consider these to be suitable. These include measures to minimise both direct and indirect effects on intertidal habitats and the adoption of an on-site construction environmental management plan. No additional mitigation measures are evident to the MMO.

4.3.5 Underwater noise during the construction phase has been scoped out for benthic ecology on the basis that changes in population and mortality is considered unlikely. MMO agree that the understanding of elevated underwater noise levels on (marine) invertebrates is relatively underdeveloped. However, it is too premature to scope out the potential impacts of underwater noise and vibration on benthic ecology at this stage, particularly when full details of the proposed works have not been provided. MMO recommend that this impact pathway is scoped into the assessment for further consideration, and that assessments draw on the peer-reviewed literature, where relevant.

4.4 Coastal Processes

4.4.1 The Scoping Report scopes out the coastal processes impacts. While the MMO feel this is reasonable for the Core Scheme that has a comparable footprint to the current sea defences, MMO feel this might not be the case for the Additional Scheme, which

would protrude further seawards. MMO was not able to find a map of the footprint of the secondary scheme in the application thus cannot assess whether scoping coastal processes impacts out with respect to this design is indeed reasonable.

4.4.2 The ES must include a full assessment of all available options, including alternatives. The assessment must make it clear why the chosen options for the scheme have been selected. Additionally, the submitted report is not consistent for example within Appendix D there is suggestion of rock armour in a specified location. Given the Appendix G report, there is no assessed reason for placing a structure there, from either a coastal process or an environmental point of view. The MMO also identify the need to see that through the assessment of options the potential for coastal squeeze to occur has been considered and understood. MMO direct the applicant to guidance provided by the Environment Agency (2008) 'Estuary Edges: Ecological Design Guidance'. Environment Agency. Available at: https://www.therrc.co.uk/publications/estuary-edges-ecological-design-guidance

4.4.3 The ES must also ensure that the most recent available data and guidance is used. Currently, MMO do not feel that the report makes reference to this, as there is more up to date information available on sea level rise and extreme water levels.

4.4.4 Further to point 4.4.1 above, the project description lacks a detailed map of the proposed works. Ideally, this would include a map of the footprint of the proposed designs superimposed on an elevation base map to understand its situation with respect the water elevation. In addition, the description of the different proposed schemes would benefit from photos from each of the locations.

4.4.5 Aside from the additional information requested in 4.4.2, the ES provides a comprehensive and reasoned assessment of the physical environment.

4.4.6 The report draws from a broad evidence base (e.g. survey/desk-based modelling) which is consistent with what MMO would expect to see.

4.4.7 MMO note that no specific mitigation measures have been included regarding coastal processes. MMO has no further comment on this at this stage.

4.4.8 Adequate description of the potential cumulative impacts of the project is provided in section 4.15 of the Environmental Scoping Report provided. MMO believe the inter-related impacts of the project would be negligibly small.

4.4.9 MMO has consulted on the scoping report and received the following advice from the Environment Agency (EA). MMO recommend direct engagement with the EA.

4.4.10 The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)
- on or within 16 metres of a sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert

in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission

4.4.11 For further guidance please visit https://www.gov.uk/guidance/flood-risk-activities-environmental-permits or contact our National Customer Contact Centre on 03708 506 506. MMO advise you consult with the EA at the earliest opportunity.

4.5 Seascape / Landscape

4.5.1 As the development site is within/adjacent to Chichester Harbour Area of Outstanding Natural Beauty (AONB), consideration must be given to the direct and indirect effects upon this designated landscape and in particular the effect upon its purpose for designation within the environmental impact assessment, as well as the content of the relevant management plan for Chichester Harbour AONB.

4.5.2 The Core Scheme overlaps with Langstone village including a historic quay with two public houses along with mixed residential property and adjacent footpaths. This includes the Mill Lane Conservation Area, designated to protect the open, historic landscape adjacent to the Langstone and Chichester Harbours. The Core Scheme also overlaps with the Langstone Conservation Area that encapsulates what was the historical hamlet of Langstone that evolved around the harbour.

4.5.3 Both the Core and Additional Scheme are adjacent to Public Rights of Way (PRoW) including the Solent and Wayfarers walk. These PRoW provide scenic views across to Hayling Island, Thorney Island and Portsea Island including the adjacent Chichester Harbour AONB

4.5.4 Both the Core and Additional Scheme have the potential to affect landscape and visual receptors as set out in Table 4.1 Environmental Scoping Report November 2020 and Recommendations for further work is agreed.

4.5.5 MMO would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA must include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.

4.5.6 The EIA must include a full assessment of the potential impacts of the development on local landscape character using landscape/seascape assessment methodologies https://www.gov.uk/guidance/landscape-and-seascape-character-assessments . MMO encourage the use of Landscape and Seascape Character Assessment (LCA/SCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA/SCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

4.5.7 MMO supports the publication Guidelines for Landscape and Visual Impact Assessment, produced by the Landscape Institute and the Institute of Environmental

Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

4.5.8 In order to foster high quality development that respects, maintains, or enhances, local landscape/ seascape character and distinctiveness, MMO encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The EIA process must detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

4.5.9 The assessment must also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context MMO advises that the cumulative impact assessment must include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

4.5.10 The assessment should refer to the relevant National Character Areas which can be found on our website. Links for Landscape/ Seascape Character Assessment at a local level are also available on the same page.
https://www.gov.uk/government/publications/seascape-assessments-for-north-east-north-west-south-east-south-west-marine-plan-areas-mmo1134

https://data.gov.uk/dataset/3fed3362-2279-4645-8aaf_c6b431c94485/mmo1037-marine-character-areas

4.6 Fish Ecology and Fisheries

4.6.1 The Scoping Report has presented a high-level description of the works covered by the core and additional schemes proposed. Full project details will be confirmed in the final design. MMO note that piling works may be required for a new steel sheet piling to replace the Structure 1 revetment and as well as installation of new sheet piles on the seaward side of Structure 2 (section 2.3.10 of the ES).

4.6.2 Overall, the MMO agree with the conclusions of the ES – please see section 4.3 for further comments regarding benthic ecology. The report has scoped in the potential impacts of underwater noise and vibration during the construction phase for fish and marine mammals. It has been identified that there is the potential for noise disturbance to marine mammals and fish particularly as a result of any piling, and that further assessment is required once the type of extent of any piling is confirmed. MMO welcome this proposal.

4.6.3 Underwater noise can have a range of negative effects on marine wildlife, including disturbance or displacement, physiological stress, masking of biologically important sounds (e.g. for communication, predator/prey detection), auditory injury, and in extreme cases, direct or indirect mortality (Popper *et al.,* 2014; Southall *et al.,* 2007). Details of the proposed noise-generating activities, particularly piling, are limited at this stage. Therefore, MMO would expect further details to be included within the ES such as the duration and timing of work, locations of any piling activity and proposed

methodology. Consideration should also be given to sensitive times of year (i.e. migratory or spawning seasons) when construction activities may be taking place.

4.6.4 Underwater noise during the construction phase has been scoped out for benthic ecology on the basis that changes in population and mortality is considered unlikely. MMO agree that the understanding of elevated underwater noise levels on (marine) invertebrates is relatively underdeveloped. However, it is too premature to scope out the potential impacts of underwater noise and vibration on benthic ecology at this stage, particularly when full details of the proposed works have not been provided. MMO recommend that this impact pathway is scoped into the assessment for further consideration, and that assessments draw on the peer-reviewed literature, where relevant.

4.6.5 Further details are required in the ES on the proposed construction (and noise-generating) activities, such as marine piling. The scoping report does appropriately highlight that further assessment is required once the type of extent of any piling is confirmed. The information the MMO would expect to see in the ES, for example, is as follows:

- Consideration of all the proposed activities that will generate underwater noise (i.e. piling, dredging, vessel activity);
- The duration and timing of any marine works including piling (such as the months of the year when piling is likely to be taking place, and anticipated number of days);
- The proposed construction daily working hours;
- The proposed methodology of any piling works (i.e. vibration or percussive/impact piling);
- Confirmed locations of the proposed activities

4.6.6 Consideration should also be given to sensitive times of year (i.e. migratory or spawning seasons) when construction activities may be taking place.

4.6.7 Most constructional and operational impacts have been scoped out for finfish receptors, namely; effects from contaminants (construction), changes to suspended sediment concentrations and dissolved oxygen levels, indirect changes to benthic habitat and quality due to changes in coastal processes (operation) and indirect temporary and permanent habitat loss. The report has only scoped the potential effects from underwater noise and vibration (construction) into the ES, though the MMO is content this is appropriate for finfish biota.

4.6.8 The report has utilised appropriate desk-based resources (Coul *et al,*1998 and *Ellis et al.,* 2012) to provide a description of the fin-fish species present and identified the nursery and spawning grounds in the vicinity of the works. MMO are pleased that the report has outlined the sensitive period for the fin-fish species identified within the vicinity of the works. MMO confirm that the evidence being proposed is consistent with that submitted for operations of a similar nature.

4.6.9 If significant impacts are identified within the ES, the Applicant will need to outline appropriate mitigation measures in the ES. No mitigation measures have been proposed in the context of fish and fisheries at this stage. Once a detailed assessment has been undertaken during the EIA, the MMO expect that appropriate

mitigation measures (if required) will be discussed/adopted for the Project. This may be required in relation to piling works, particularly in regard to sensitive fish receptors.

4.6.10 MMO agree with the scoping in of both temporary and permanent loss of intertidal habitats and also marine noise and vibration in relation to fish as summarised in table 4.13. As identified within this chapter both the European eel and sea trout are present in the vicinity of Langstone and Chichester Harbours.

4.6.11 MMO agrees with the recommendations for further work set out in section 4.7.3. Marine Ecology (identified within this chapter both the European eel and sea trout are present in the vicinity of Langstone and Chichester Harbours).

4.6.12 The inclusion of the potential of beneficial impacts is included within the invasive species section of the table which is confusing and potentially misleading. Any potential for beneficial impacts should be included in the table as a separate section. MMO agree with the recommendations for further work set out in section 4.7.3.

4.6.13 MMO support the conclusions within the Water Framework Directive (WFD) Report for both Chichester Harbour and Langstone Harbour waterbodies, in particular the inclusion of fish requiring an impact assessment for the potential of underwater noise to impact normal fish behaviour such as migration, movement and spawning.

4.6.14 The scoping table for fish for Langstone Harbour says that entrainment or impingement of fish requires impact assessment but it appears that this is an error as the justification states that the works will not include dredging and therefore assessment is not required.

4.6.15 MMO have provided some additional data sources to be considered to help inform the fish characterisation in the ES which as outlined below:

> The Applicant has recognised that Langstone Harbour is an important seabass nursery area. Cefas has conducted an annual survey in the Solent since 1983. This survey provides abundance indices for seabass and captures other fish species Cefas Data Hub Cefas Data Hub: http://data.cefas.co.uk/#/View/18912
> Langstone Harbour Board Fish Surveys – In collaboration with Southern Inshore Fisheries and Conservation Authority (Southern IFCA) the Langstone Harbour Board carries out fish surveys. Details available online here https://www.langstoneharbour.org.uk/fish-survey
> The Environment Agency (EA) carries out Coastal and Transitional waters (TRAC surveys) and some of their data is available online. MMO would suggest that the EA is contacted for further information: https://data.gov.uk/dataset/41308817-191b-459d-aa39-788f74c76623/trac-fish-counts-for-all-species-for-all-estuaries-and-all-years

4.6.16 There is potential for both commercial and recreational fishing activities within the area which must be considered. The applicant may want to engage with the local IFCA for assistance in identifying any fisheries. Southern IFCA can be contacted at science@southern-ifca.gov.uk

4.6.17 Both the Core and additional schemes are scoped out for fishing owing to the low commercial fishing activity within the vicinity of the scheme. Should the Additional

Scheme be brought forward, which would include construction of rock armour at the spit, impacts relating to navigation should be scoped in for further assessment.

4.7 Shellfisheries

4.7.1 The ES is adequate and appears to have scoped in all potential receptors. Furthermore, MMO agree with the assessment of the potential receptors and agree with those scoped out of subsequent assessments.

4.7.2 Appropriate evidence has been used in the assessment such as previous surveys conducted in the proposed area and the evidence submitted is consistent with that submitted for operations of a similar nature.

4.7.3 MMO note that no mitigation measures have been proposed for shellfish, this appears sufficient given that the proposed project is not anticipated to have a significant impact on shellfish.

4.7.4 There is potential for both commercial and recreational shellfishery activities within the area which must be considered. The applicant may want to engage with the local IFCA for assistance. Southern IFCA can be contacted at science@southern-ifca.gov.uk

4.8 Archaeology / Cultural Heritage

4.8.1 MMO recommend given the nature of the proposal and the likely impact to archaeological deposits, early discussions are held with Historic England and the Applicant in order to agree the key sites and identifiy matters which will need to be addressed within the EIA.

4.8.2 This development could, potentially, have an impact upon designated heritage assets and their settings in the area around the site. A Designated Heritage Asset is defined in the National Planning Policy Framework as 'A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation'. In line with the advice in the National Planning Policy Framework (NPPF), the Environmental Statement should contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets. The ES must consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest. These can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place. This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk), the National Record of the Historic Environment (NRHE) and relevant local authority staff.

4.8.3 MMO advise that the South Marine Plan policy 'S-HER-1' makes clear that where proposals have the potential to compromise or harm elements of the cultural heritage resource applications should demonstrate that they will avoid, minimise and mitigate against harm.

4.8.4 MMO strongly recommend that you involve the Conservation Officer of Havant Borough Council and the archaeological staff at Hampshire Historic Environment Record in the development of this assessment. They are best placed to advise on: local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.

4.8.5 It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this.

4.8.6 The assessment must also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area. The assessment must also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments.

4.8.7 MMO agree with the conclusion of 4.8.2. that at the very least there is medium potential for remains to be identified from the Prehistoric, Roman, medieval and post-medieval periods.

4.8.8 MMO note that a series of recommendations are outlined within 4.8.3. Given the nature of the site and the likelihood of the presence of well-preserved archaeological deposits and features within the intertidal zone, MMO would expect a deposit model to be included within this package. It would be the MMO's assumption that a series of boreholes for geotechnical purposes are likely to be drilled as part of the initial design scheme for the project. These must be assessed archaeologically and brought together to produce a deposit model which must look to understand the following points:

Assess the nature of the sediment sequence
Identify the depth of archaeological deposits which may be encountered;
Have consideration for the condition of any significant sedimentary and archaeological remains which may be present.

4.9 Navigation / Other Users of the Sea

4.9.1 At this stage of the project, the MMO have no further comments regarding navigational safety. Further consideration will be given once plans have been finalised and an application for a marine licence is made.

4.9.2 A detailed methodology must be produced to ensure safety of navigation can be assessed. If a marine licence were granted, it is likely the MMO would condition the need for notification to other marine users (e.g. Notice to Mariners).

Access and Recreation

4.9.3 MMO encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing

footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green/blue infrastructure. Relevant aspects of local authority green/blue infrastructure strategies should be incorporated where appropriate.

England Coast Path

4.9.4 The England Coast Path (ECP) is a new National Trail that will extend around all of England's coast with an associated margin of land predominantly seawards of this, for the public to access and enjoy. Natural England takes great care in considering the interests of both land owners/ occupiers and users of the England Coast Path, aiming to strike a fair balance when working to open a new stretch. We follow an approach set out in the approved Coastal Access Scheme and all proposals have to be approved by the Secretary of State. We would encourage any proposed development to include appropriate provision for the England Coast Path to maximise the benefits this can bring to the area. We suggest that the development includes provision for a walking or multi-user route, where practicable and safe. This should not be to the detriment of nature conservation, historic environment, landscape character or affect natural coastal change. Consideration for how best this could be achieved should be made within the Environmental Statement. As part of the development of the ECP a 'coastal margin' is being identified. The margin includes all land between the trail and the sea. It may also extend inland from the trail if:

It is a type of coastal land identified in the Countryside and Rights of Way Act 2000 (CROW Act), such as beach, dune or cliff
there are existing access rights under section 15 of the CROW Act
Natural England and the landowner agree to follow a clear physical feature landward of the trail Maps for sections of the ECP and further proposals for adoption are available here:
https://www.gov.uk/government/collections/england-coast-path-improving-public-access-to-thecoast

Rights of Way, Access land, Coastal access and National Trails

4.9.5 The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the adjacent/nearby National Trails. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

4.10 Seabed Ownership

4.10.1 For any part of the project that falls below MHWS, the Crown Estate may be affected. From the information provided the MMO advise early engagement with The Crown Estate as the proposal may affect some of their land.

4.11 Air Quality & Climate

4.11.1 The MMO agrees with the rationale for the Air Quality scoping assessment , and the conclusion to scope out consideration of significant Air Quality effects from the formal EIA is accepted. Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example, over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition (England Biodiversity Strategy) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf . A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment must take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (www.apis.ac.uk). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

4.11.2 The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES must reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system must contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 174), which must be demonstrated through the ES.

4.12 Water Quality

4.12.1 MMO note that most of the works will be undertaken onshore. Only relatively minor works will take place below MHWS and these are unlikely to involve much sediment disturbance (e.g. they will not involve any changes to outfalls/discharges and there will be no dredging or beach recharge works). Impacts on water quality from increases in suspended sediment concentrations will therefore be limited, although we note that the works will be ongoing for a relatively long period (including summers 2023 & 2024). Sediment analysis has been undertaken in 2018 and this confirms contaminant levels to be generally low. MMO note that mitigation measures are proposed, such as working at low water and using a silt curtain, which will reduce potential risks to water quality.

4.12.2 The Scoping Report has appropriately identified the environmental risks in relation to marine water quality (including the presence of two shellfish waters in the vicinity of the works) and has completed relevant Water Framework Directive (WFD) scoping tables in Appendix B. Further comments in relation to shellfish/shellfisheries is available in section 4.7 of this response.

4.12.3 MMO support the conclusions within the WFD Report for both Chichester Harbour and Langstone Harbour waterbodies, in particular the inclusion of fish requiring an impact assessment for the potential of underwater noise to impact normal fish behaviour such

as migration, movement and spawning. Also the inclusion of SPA and SAC protected areas, habitats and non-native invasive species.

4.12.4 The scoping table for fish for Langstone Harbour says that entrainment or impingement of fish requires impact assessment but it appears that this is an error as the justification states that the works will not include dredging and therefore assessment is not required.

4.12.5 MMO note that factors scoped in will be assessed further at the next stage - MMO recommend a standalone WFD Assessment.

4.13 Seabed / Land / Soil Quality

4.13.1 The report provided concludes that impacts to water and sediment quality has been scoped out of subsequent assessment. Given that the proposed scheme seems to involve very little in the way of dredging / disturbance to marine sediment, MMO can understand this decision. However, more information is required regarding the dredging required throughout the scheme, including dredge depths and volumes, and disposal locations, before this receptor can be completely scoped out.

4.13.2 Chapters 1 and 2 of the report provide a thorough overview of the need for the project and the surrounding area, however the specifics of the project with relation to dredge and disposal operations are lacking. MMO would like to see an indication of any potential dredge volumes, depths, and dredging methods, as well as details of proposed disposal locations.

4.13.3 The evidence base proposed to be used in the assessment, with relation to dredge and disposal operations, is ground investigations that were conducted at Langstone in September 2018. The report mentions that the investigations were carried out by "WYG", but MMO have not been able to determine the full name of this company through the document as only the acronym is used. According to the Appendix F of the report, the works were undertaken by AECOM.

4.13.4 It appears from the results provided in Table 4.5 of the report that 12 samples were collected from depths ranging from 0.1m to 1m, and all were analysed for levels of trace metals and polycyclic aromatic hydrocarbons (PAH). The results have been compared to Cefas Action Levels, as well as Canadian Sediment Quality Guidelines, which is appropriate. MMO is unable to comment on the suitability of the sampling regime as details have not been provided regarding the proposed dredge depths, volumes, or methods, nor has any information been provided on the disposal of such material, and therefore it is unclear whether the applicant intends to dispose of this material to land.

4.13.5 The analysis provided was carried out in 2018, however OSPAR (Oslo and Paris Convention) guidelines recommend that material from proposed dredge areas be analysed every 3 to 5 years depending on contamination levels. As the proposed scheme would constitute a capital dredge and the results indicate some elevated levels of contaminants (see paragraph 4.13.6 below), MMO recommend that more up to date analysis results be obtained for inclusion in an ES. In addition, the sediment analysis has not been carried out by a laboratory validated by the MMO, nor have the results been provided in the MMO results spreadsheet.

4.13.6 The results provided indicate that levels of trace metals were generally below their respective Cefas Action Level 1 (AL1), with the exception of levels of lead (Pb) in one sample, which was found to be in excess of AL1, but still below AL2. However, levels of PAHs, were found to be in excess of AL1 in numerous samples, with one sample showing levels elevated in excess of 900 micrograms/kilogram (µg/kg), compared to an AL1 of 100 µg/kg. There is currently no AL2 for PAHs, however these results do indicate a cause for concern within the sediment, and MMO recommend that further analysis is obtained by a validated laboratory before this potential impact can be scoped out. In addition, it must be noted that Cefas ALs cannot be used to assess sediment results if the method(s) of analysis is unknown, which is why sediment analysis must be carried out by a laboratory validated by the MMO.

4.13.7 MMO note that Table 4.6 of the provided report states "*9 samples had low levels of PAH contamination*". However, given the results provided, MMO disagree with this statement. The majority of results provided showed levels to be elevated over AL1.

4.13.8 Chapter 4.15 of the provided report details the approach to cumulative and inter-related impacts and effects, including a list of identified works nearby. The report states that the cumulative impact assessment (CIA) will use the Natural England (2014) and MMO (2014) framework guidance to assess cumulative effects. This approach is sensible and MMO is content there will be an adequate description of cumulative impacts and effects with regards to dredge and disposal operations.

4.13.9 The report states that *"a silt curtain will be in place during construction works on the foreshore, which will contain any suspended sediments within the works area and prevent any significant impacts on water quality in the harbours".* Whilst this must help minimise the distribution of any suspended sediment within the area, no mention is made regarding the proposed disposal of excavated material. At present, MMO are not content that the material is suitable for disposal at sea i.e. below MHWS (see paragraphs 4.13.4 to 4.13.7 above).

4.13.10 In summary, MMO understand that the proposed scheme is still in its design stage, and therefore details on any proposed dredge works are being determined. However, given the results of the 2018 sampling analysis, MMO believe that it is too soon to scope out potential impacts on sediment and water quality. MMO recommend that more details be provided on the proposed dredge operations within any subsequent EIA and/or ES, including information on dredge depths, volumes, and disposal options. In addition, MMO recommend that more up-to-date sediment sampling results be included in any subsequent assessment.

4.14 Population and Human Health

4.14.1 The scheme has the potential to disrupt local businesses and recreational interests and both the core scheme and additional scheme are scoped in as set out in the Environmental Scoping Report November 2020. The ES must clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and industrial premises and people using

transport infrastructure (such as roads and railways), recreational areas, and publicly accessible land.

4.14.2 From the information provided in the Project Description, the MMO advise that direct environmental health impacts will be limited to the excavation phase. There is potential for noise and the generation of dust from the works; The MMO recommend Constructional Environmental Management Plan (CEMP) is produced to minimise any emissions or other excavation impacts.

4.14.3 The MMO recommend the summation of relevant issues into a specific section of the ES to provide a focus which ensures that public health is given adequate consideration. The section must summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy, relevant guidance and applicable standards must also be highlighted.

4.14.4 In terms of the level of detail to be included in an ES, the attached Appendix 1 details Public Health England's (PHE) requirements and recommendations regarding the content of and methodology used in preparing the ES.

4.14.5 The scoping report does not identify any aspects to be scoped out of the assessment for population and human health. Appendix 1, Table 1 lists the wider determinants, as a minimum, that must be considered as part of the proposed Health Impact Assessment.

The report proposes the vehicles for transportation of material, but it does not consider or assess any impact from other transport related to the scheme, such as worker movement or excavation vehicles and their impact on nearby residents. Consideration must be provided in the ES in line with the information in Appendix 1.

4.14.6 If any of the determinants within Table 1 of Appendix 2 are to be scoped out, the ES must provide adequate justification in accordance with the Planning Inspectorate Advice Note Seven (Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements).

4.14.7 The MMO advise that the traffic and transport assessments must also consider the impact from all land-based transport.

4.15 Cumulative Impacts & In-Combination Impacts

4.15.1 Potential cumulative impacts have been covered adequately.

4.15.2 A list of plans and projects to be considered in the cumulative impacts assessment (CIA) is presented in Table 4.21 of the scoping report. The assessment of cumulative/in-combination impacts is an iterative one and the list of project must be updated. The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

4.15.3 A number of measures have been incorporated into the outline design, including development of the construction programme to avoid impacts to overwintering birds (see section 2.4 of the scoping report). Additional measures are necessary. MMO expect like the Cumulative Impact Assessment (CIA), mitigation (where required) will be discussed and agreed through the consultation to be carried out throughout the EIA process.

4.15.4 In relation to dredge/disposal (section 4.13.8 above), Chapter 4.15 of the provided report details the approach to cumulative and inter-related impacts and effects, including a list of identified works nearby. The report states that the cumulative impact assessment (CIA) will use the Natural England (2014) and MMO (2014) framework guidance to assess cumulative effects. This approach is sensible and MMO is content there will be an adequate description of cumulative impacts and effects with regards to dredge and disposal operations.

4.15.5 The ES must include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects must be included in such an assessment, (subject to available information):

a) existing completed projects;
b) approved but uncompleted projects;
c) ongoing activities;
d) plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
e) plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

4.16 Risk of Major Accidents and Disasters Relevant to the Project (including those caused by Climate Change)

4.16.1 The MMO expect to see a robust and comprehensive assessment of risk of major accidents and disasters relevant to the Project.

4.16.2 Assessment of accidents must: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate effects.

5 Conclusion

The Scoping Report is not exhaustive and further details of the project must be provided to fully understand all the potential impacts.

The topics highlighted in this scoping opinion must be assessed during the EIA process and the outcome of these assessments **must** be documented in the ES in support of the marine licence application and any associated planning application(s). This statement, however, must not necessarily be seen as a definitive list of all EIA requirements. Given the scale and programme of these planned works and the level of detail provided, other matters may be raised in the future and the MMO reserve the right to modify its present advice.

Your sincerely,

PP Emmanuel Mulenga
Marine Licensing Case Officer

Tel: +44 (0)208 565 4573
Email: Emmanuel.Mulenga@marinemanagement.org.uk

20 May 2021

6 References

Coull, K.A., Johnstone, R., and Rogers, S.I (1998) Fisheries Sensitivity Maps in British Waters. WKOOA.

Ellis, J.R., Milligan, S.P., Readdy, L.,Taylor, N. and Brown, M.J. 2012. Spawning and nursery grounds of selected fish species in UK waters. Sci. Ser. Tech. Rep., Cefas Lowestoft, 147: 56 pp.

Marine Management Organisation, 2020. Statutory Guidance Bass Fishing: Catch limits, closures and minimum size. [Online] Available at: Bass fishing guidance 2019 - GOV.UK (www.gov.uk) (Accessed 29th March 2021). Version 2 February 2021.