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The Sizewell C Project Case Team
National Infrastructure Planning
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(By email only)

12 October 2021

Planning Inspectorate Reference: EN010012
Our Identification Number: 20025459

Dear Sir or Madam,

Planning Act 2008 – Application by NNB Generation Company (SZC) Limited for an Order Granting Development Consent for The Sizewell C Project

Deadline 10 Submission

On 24 June 2020, the Marine Management Organisation (the “MMO”) received notice under section 55 of the Planning Act 2008 (the “PA 2008”) that the Planning Inspectorate (“PINS”) had accepted an application made by NNB Generation Company (SZC) Limited (the “Applicant”), for determination of a Development Consent Order (“DCO”) for the construction, maintenance and operation of the proposed Sizewell C Nuclear Power Station (the “DCO Application”).

The Applicant seeks authorisation for the construction, operation, and maintenance (“O&M”) of the DCO Application, comprising of two nuclear reactor units, together with associated onshore and offshore infrastructure and associated development (the “Project”). The marine elements of the Project include a cooling water system comprised of intake and outfall tunnels, a combined drainage outfall in the North Sea, a fish return system, two beach landing facilities, and sections of the sea defences that are, or will become, marine over the life of the project. These marine elements fall within a Deemed Marine Licence (“DMLs”) with is under Schedule 20 of the DCO.

The Applicant is also now applying to construct a temporary desalination plant for the construction phase. This will involve the construction of a seawater intake tunnel and a brine water outfall tunnel.

The MMO was established by the Marine and Coastal Access Act 2009 ("MCAA") to make a contribution to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas.

The responsibilities of the MMO include the licensing of construction works, deposits and removals in the marine area by way of a marine licence. Under Part 4 of MCAA, a marine licence is required for all deposits or removals of articles or substances below the level of mean high water springs ("MHWS"), unless a relevant exemption applies.

For Nationally Significant Infrastructure Projects (“NSIPS”) the PA 2008 enables DCOs for projects which affect the marine environment to include provisions which deem marine licences. Where applicants choose to have a marine licence deemed by a DCO, applicants may seek to agree the draft marine licence with the MMO prior to submitting their DCO application to PINS. The MMO’s primary roles under the PA 2008 regime are as an interested party during the examination stage, and as a licensing and consenting body for the DML at the post consent stage

The MMO is responsible for regulating and enforcing marine licences, regardless of whether these are 'deemed' by DCOs or are consented independently by the MMO. This includes discharging of conditions, undertaking variations and taking enforcement action, when appropriate.

This document comprises the MMO’s comments submitted in response to Deadline 8.

The MMO submits comments on the following as part of Deadline 10:

1. **Final SoCG**
2. **List of matters not agreed where SoCG could not be finalised**
3. **Comments on any additional information/submissions received by D8 and D9**
4. **Responses to any further information requested by the ExA for this Deadline**
5. **Written summaries of oral submissions made at ISH15**

This written response is submitted without prejudice to any future representation the MMO may make about the DCO Application throughout the examination process. This representation is also submitted without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for any other authorisation relevant to the proposed development.

Yours faithfully,

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1. Final Statement of Common Ground ("SoCG")

1.1 General

1.1.1 The MMO have been engaging with the Applicant to produce a SoCG. We have managed to resolve a number of our previous issues due to the Applicant providing further information. How we have come to resolve these matters is detailed within the SoCG that will be submitted by the Applicant at Deadline 10. However, some outstanding matters remain where SoCG could not be agreed, and these are detailed below in section 2. As a summary, our outstanding matters relate to:

- The Appeals procedure in Schedule 20A of the draft DCO
- The DML in Schedule 20 of the draft DCO
- Harbour Powers in Part 6 of the draft DCO
- Further evidence required for the DCO Change 19 application
- *Sabellaria* Reef Monitoring and Management Plan

2. List of matters not agreed where SoCG could not be finalised

2.1 DCO and DML

The DCO and DML matters that the MMO and the Applicant do not agree on have been detailed below. These are the areas where both parties categorically do not agree. It is important to note that there are a number of further issues that MMO have with the draft DML which we have detailed within section 3.2 below, and which we advise should be actioned for the final DML. However, we consider the comments raised in section 3.2 that are not covered here to be smaller scale points regarding drafting and therefore would not be disagreeable to the Applicant.

Appeals

2.1.1 The Applicant and the MMO do not agree on the Appeals procedure outlined within Schedule 20A of the DML [REP8-036], this is due to the Appeals process proposed remaining unacceptable to the MMO. The MMO's position on Appeals is summarised below and outlined within our previous responses referenced as follows: sections 2.1.2 – 2.1.7 of REP2- 140; sections 2.1.5 – 2.1.14 of REP2-144; sections 1.1.7 – 1.1.22; section 6 of REP6-039; section 4.1 of REP6-040; and section 1.2.1.3 – 1.2.1.13 of REP8-164.

2.1.2 Schedule 20A proposes a new enhanced Appeals procedure for the Applicant should the MMO refuse an application for approval under a condition, or fail to determine the application for approval by certain 'determination dates' which have been inserted into the DML in Schedule 20. This Appeals procedure is not available for other marine licence holders. The MMO strongly requests that the Appeals procedure for the MMO, and the 'determination dates', are removed from both the DCO and DML.

2.1.3 Appeals are already available to the Applicant in the form of an escalated internal procedure and judicial review ("JR"), and therefore, including any additional appeal mechanism within the DCO and DML is unnecessary. The Marine Licensing (Licence Application Appeals) Regulations 2011 apply a statutory appeal process to the decisions that the MMO makes regarding whether to grant or refuse a licence or conditions which are to be applied to the licence. However, they do not include an appeal process to any decisions the MMO is required to give in response to an application to discharge any conditions of a marine licence issued directly by us. Therefore, if the DCO were to be granted with the proposed appeal process included, this would not be consistent with the existing statutory processes. This amendment would be introducing and making available to this specific Applicant, a new and enhanced appeal process which is not available to other marine licence holders, creating an unlevel playing field across the regulated community. The MMO has explained within our Relevant Representation [RR-0744] that these proposals go against the statutory functions laid out by parliament. The MMO's previous comments within RR-0744 on the appeals route remain.

2.1.4 In addition to this, the MMO emphasises that we are an open and transparent organisation that actively engages, and maintains excellent working relationships with, industry and those it regulates. The MMO discharges its statutory responsibilities in a manner which is both timely and robust in order to fulfil the public functions vested in it by Parliament. The scale and complexity of Nationally Significant Infrastructure Projects creates no exception in this regard and indeed it follows that where decisions are required to be made, or approvals given, in relation to these developments of significant public interest, only those bodies appointed by Parliament should carry the weight of that responsibility. Since its inception the MMO has undertaken licensing functions on over 130 DCOs, comprising some of the largest and most complex operations globally. The MMO is not aware of an occasion whereby any dispute which has arisen in relation to the discharge of a condition under a DML has failed to be resolved satisfactorily between the MMO and the applicant, without any recourse to an 'appeal' mechanism.

2.1.5 The MMO adds the following in support of our comments regarding the discussion on Appeals. In the case of both Hornsea 3 and Norfolk Vanguard DCOs, the applicants advanced the need for the MMO's approvals to be made within a set determination period and that those decisions be subject to either an arbitration process or at least a modified Appeals process to be based on the Marine Licensing (Licence Application Appeals) Regulations 2011. In neither case, and on neither point, did the ExA, or indeed the Secretary of State, agree with the applicant.

2.1.6 In Vanguard, the ExA noted at 9.4.42 of its recommendation report[1] the need for evidence to justify the adapting of existing provisions regarding the discharge of conditions on DMLs by the MMO in the exercise of its regulatory function. The ExA noted that it did not have such evidence before it, nor did it have before it any evidence of any previous delays occasioned by the MMO in the exercise of these functions so as to cause material harm to any marine licence holder. The MMO observes that there is no such evidence before the ExA in relation to this application.

2.1.7 The MMO's position is that the Applicant does not appear to be advancing any justification over and above that advanced in Vanguard in relation to any need to adapt existing provision, nor is it advising any evidence of any current delays in the MMO providing any approvals under the conditions of this licence. The MMO cannot therefore see any need for the inclusion of the statutory Appeals process in relation to this application and this DML. The ExA in Vanguard acknowledged that to apply an Appeals process as proposed, would place the Applicant in a different position to other licence holders.

2.1.8 The MMO's position for this application is that to include the Appeals process in Schedule 20A within the DCO would put this Applicant in a different position to other licence holders for no clear cogent or robust reason. As the MMO has set out, there is already a clearly defined route to challenge the MMO over these approvals and this is through the MMO's internal complaints procedure and ultimately through JR. For the avoidance of doubt, to date, the MMO has never been judicially reviewed over the refusal, or a failure to refuse, an application for an approval under a condition of a licence. The MMO would suggest that the Applicant is attempting to fix an issue which isn't broken.

Determination dates

2.1.9 The MMO remains concerned about the Applicant's proposed inclusion of a specified determination period in which the MMO must determine whether or not to grant any approval required under a condition of the DML. This is proposed in the DML conditions that refer to 'determination dates'. For example, see REP8-036, Schedule 20, Part 3, Condition 11(3) which states: 'The determination date is 6 months from submission of the detailed method statement to the MMO.'

2.1.10 The MMO strongly considers that it is inappropriate to put timeframes on complex technical decisions of this nature. The time it takes the MMO to make such determinations depends on the quality of the application made, and the complexity of the issues and the amount of consultation the MMO is required to undertake with other organisations to seek resolutions. The MMO's position remains that it is inappropriate to apply a strict timeframe to the approvals the MMO is required to give under the conditions of the DML given this would create disparity between licences issued under the DCO process and those issued

[1] Report available at: https://infrastructure.planninginspectorate.gov.uk/wpcontent/ipc/uploads/projects/EN010079/EN010079- 004268-Norfolk%20Vanguard%20Final%20Report%20to%20SoS%2010092019%20FINAL.pdf

directly by the MMO, as marine licences issued by the MMO are not subject to set determination periods.

2.1.11 Whilst the MMO acknowledges that the Applicant may wish to create some certainty around when it can expect the MMO to determine any applications for an approval required under the conditions of a licence, and whilst the MMO acknowledges that delays can be problematic for developers and that they can have financial implications, the MMO stresses that it does not delay determining whether to grant or refuse such approvals unnecessarily. The MMO makes these determinations in as timely manner as it is able to do so. The MMO's view is that it is for the developer to ensure that it applies for any such approval in sufficient time as to allow the MMO to properly determine whether to grant or refuse the approval application.

2.1.12 However, the MMO observes that should the ExA be minded to recommend that the DML conditions do include defined determination periods, as the Applicant currently proposes, any determination period set out in the DML should be 6 months and the condition should be drafted using the same wording used in Vanguard or Hornsea Three, as detailed below:

'Unless otherwise agreed in writing with the undertaker, the MMO must use reasonable endeavours to determine an application for approval made under condition [x] as soon as practicable and in any event within a period of [x] months commencing on the date the application is received by the MMO.'

Or

'The MMO shall determine an application for approval made under condition [x] within a period of six months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.'

Environmental Impact Assessment ("EIA") Language in DML

2.1.13 The MMO and the Applicant disagree on the language that should be used in the DML to define the activities that are permitted to take place. The MMO strongly considers that the activities authorised under the DCO and DML should be limited to those that are assessed within the EIA, and the statement within the DML [REP8-036] that activities will be limited to those that 'do not give rise to any materially new or materially different environmental effects' should be updated to clarify this.

2.1.14 For example, Rep8-036, Schedule 20, Part 2, Article 4(1)(b) states the following:

'(1) Subject to the licence conditions in Part 3 of this licence, this licence authorises the undertaker to carry out any licensable marine activities under section 66(1) of the 2009 Act which
(a) are not exempt from requiring a marine licence by virtue of any provision made under section 74 of the 2009 Act; and

*(b) do not give rise to any **materially** new or **materially** different environmental effects to those assessed in the environmental information.'*

The MMO considers that (1)(b) should be updated to *'do not give rise to any new or different environmental effects to those assessed in the environmental information'.* This also applies to the definition of "maintain" within Schedule 20, Part 1, Article 1(1); and Schedule 20, Part 3, Condition 9A.

2.1.15 This is for the following reasons. The MMO has reviewed the note within Appendix B of REP7-058, which was put before the ExA at Deadline 7 in response to questions from the ExA regarding a comment from Counsel for the Applicant made at Issue Specific Hearing 2 ("ISH2"). At ISH2 Counsel for the Applicant said that there was no legal requirement to stay within the limits that the EIA assessed and mitigated, and no legal requirement for there to be no exceedance of the effects assessed.

2.1.16 The MMO considers that this view is an oversimplification of the correct situation and the reality is more nuanced than the Applicant seems to be suggesting.

2.1.17 The intention behind EIA is to protect the environment by ensuring that in deciding whether to grant a development consent for a project, and in deciding what conditions to attach to that consent, the decision has *full* knowledge of what the likely significant environmental effects of the project/development will be. That knowledge then guides the consent process and what conditions, if any, to attach to the consent. Additionally, there is considerable public consultation under the EIA process because the process recognises the importance of local knowledge in environmental decision making.

2.1.18 The EIA legislation was designed to apply to those plans/projects which could be sufficiently detailed and particularised at the application stage, to allow the consenting decision to be taken in the *full* knowledge of what the likely significant effects of that plan or project would be. In such circumstances, it would be unnecessary to create a legal obligation under the order which requires the activities to remain within what was assessed under the EIA, because the consent authorises the detailed and well particularised project, assessed in the EIA to be carried out, and therefore, providing the development is constructed as per the consent, those works would, by default, remain within the parameters of the EIA.

2.1.19 The difficultly identified with EIA, as was discussed in the *Rochdale Envelope* case, is that to deal with an outline planning case, where the project will flex over time, you need to undertake the EIA at the outline permission stage when there is not enough detail to properly identify what the final design of the project will actually be. In the case of *Rochdale* the court was saying things could remain flexible providing the EIA took account of the need for evolution of the project over time and assessed the likely significant effects within clearly defined parameters, and then the consent granted imposed conditions to ensure that the process of evolution kept within the parameters of the EIA. Whilst there might

not be an express provision that you can point to in the legislation that says that a project cannot exceed the effects assessed in the EIA, it is implied (or the purpose of EIA would be undermined) and the *Rochdale* case discusses this.

2.1.20 In this DCO and the DML, the Applicant is wanting flexibility in terms of the design details (both in terms of some of the construction details, and in relation to some of the maintenance activities). Where those design details are not finalised at the application stage, the Applicant is wanting to retain some flexibility and is proposing that the works that can be carried out should be restricted to those which do not give rise to *materially* new or *materially* different environmental effects to those assessed in the EIA. The concern with this is that the inclusion of the word *materially* here would allow the undertaker to carry out works whose effects are outside of the likely significant effects assessed in the EIA, providing they do not do so *materially,* i.e. in any significant way, greatly, or considerably. This is not what the purpose of the EIA process is, and it runs contrary to the purpose of EIA. The other issue with this is that whilst the undertaker is responsible for producing the environmental information and statement on which the EIA decision is based, the appropriate authority is responsible for the EIA consent decision, the inclusion of the word *materially* essentially means that the undertaker makes the decision as to what is and what is not material. Under EIA it is for the appropriate authority to determine what the likely significant effects will be and how those should be mitigated.

2.1.21 On the basis of what is set out in the note, the MMO does not consider that it is appropriate to use the word material in these circumstances. If the Applicant wants the flexibility of not being prescriptive about the design from the start, the Order and the DML granted through it should restrict works which can be carried out to those which do not give rise to any new or different environmental effects to those assessed in the EIA.

2.2 Harbour Powers in Part 6 of the Draft DCO [REP8-036]

2.2.1 The MMO have a number of outstanding comments where SoCG could not be finalised regarding the Harbour Powers contained within Part 6 of the draft DCO [REP8-036]. Please see our comments on this in section 3.1 below.

2.3 DCO Change 19 Application – Temporary Desalination Plant

2.3.1 The MMO considers that further information is required before we are able to robustly agree with the conclusions of the environmental impact assessments in the fourth ES Addendum in relation to marine ecology and fisheries, coastal geomorphology, and marine water quality and sediments. The details of our views on these matters are explained in section 3.4 of this response. The MMO consider that the impacts of the plant are likely to be not significant, based on this further information being provided.

2.4 *Sabellaria* Reef Monitoring and Management Plan

2.4.1 The MMO has reviewed the Draft *Sabellaria* Reef Management and Monitoring Plan [REP7-078] and have the following comments to make. While it has identified possible options for installation of the intake heads (jack-up, dynamic positioning, anchored barge), the mitigation plan does not commit to adopting the least environmentally damaging option. We note that at Hinkley Point C ("HPC"), an anchored barge is being used for installation of the intake heads. This is probably the most damaging option for *Sabellaria* reef. The MMO therefore requested further clarification from the Applicant about how the preferred construction option will be determined.

2.4.2 The Applicant has proposed to submit a revised version of the plan at Deadline 10. The MMO emphasise that this updated plan should be reviewed alongside our comment above. We understand that the plan submitted at Deadline 10 will include reference to careful planning of anchoring, however the MMO retain that any updates to address our comments should be explicit within the plan.

3. Comments on any additional information/submissions received by D8 and D9

3.1 Deadline 8 DCO – Harbour Powers [DCO Part 6 in REP8-036]

General Comments on Part 6 'Harbour Powers' [REP8-036]

3.1.1 The MMO clarifies that harbour powers within the DCO are distinct and all together separate to the provisions and conditions within the DML, and the MMO are not to be the regulator for the harbour powers going forward should consent be granted.

3.1.2 Whilst the MMO are delegated to process harbour orders on behalf of DfT under the Harbours Act 1964 ("HA 1964"), we deal with a small number of works orders which require a Marine Licence to carry out the works within the harbour. During the process, the MMO engage directly with consultees and determine the application on the respective tests within the HA 1964. Once made, the MMO do not regulate, monitor or carry out enforcement action against the harbour powers within the Harbour Revision Order or Harbour Empowerment Order. It is a matter for the Statutory Harbour Authority ("SHA") to regulate the harbour, using their own powers. If any enforcement/intervention is considered appropriate, this may be taken by the MCA or DfT.

DCO Article 2 *'Interpretation'*

3.1.3 The MMO query whether there should be a reference to "the 1964 Act" i.e. the Harbours Act 1964, this could be due to it being used only once in article 62.

DCO Part *6,* Article 46(2)

3.1.4 When referring to a provision in another Act, in the description or heading in brackets (in this case Section 28 of the 1847 Act '(Exemption of vessels in her Majesty's Service, &c. from rates)') it is usual practice in drafting statutory

instruments that the first word, in this instance 'Exemption' is set out in lower case letters). The MMO advise that this is checked throughout the entire instrument for consistency.

DCO Part 6, Article 52

3.1.5 The MMO advise that the heading 'Application of Marine and Coastal Access Act 2009' should be removed from the DCO and the contents page as the provision has been removed.

DCO Part 6, Article 55

3.1.6 The MMO advise that the heading 'Power to dredge' is removed from the DCO and the contents page as the provision has been removed.

DCO Part 6, Articles 58, 59, and 60

3.1.7 The MMO does not agree with the Applicant that these Articles should be removed from the Harbour Powers. The Articles relate to the following provisions:

- Lights on marine works etc. during construction
- Provision against danger to navigation
- Permanent lights on marine works

3.1.8 The MMO previously advised that there should be a DML condition to ensure that the appropriate Aids to Navigation for the project are approved by the MMO and implemented by the undertaker. As a result of this comment the Applicant removed these provisions from the Harbour Powers and inserted Condition 38 within the DML instead. The Applicant considered that it was not necessary to have both a DML condition for Aids to Navigation and requirements to the same effect within the Harbour Powers. While the MMO agrees with the wording of Condition 38 in the DML and considers that this should remain, the MMO also considers that Articles 58-61 should be reinserted into the Harbour Powers, and also carry a penalty for non-compliance, for the reasons explained below.

3.1.9 In seeking harbour powers in the DCO, the undertaker is seeking to empower themselves as a harbour authority. If this were a 'stand alone' application to become a harbour authority it would be consented via a 'works' Harbour Empowerment Order under the HA 1964 and would contain all of the relevant provisions, including an obligation to light the harbour.

3.1.10 If the undertakers require status as a harbour authority – then in the MMO's view, all of the statutory obligations of a harbour authority should come with it, including provisions for:

- Lights on marine works etc. during construction
- Provision against danger to navigation
- Permanent lights on marine works

3.1.11 The harbour authority has a statutory obligation to light the harbour in accordance with the Port Marine Safety Code (DfT policy document) ("PMSC"):

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918935/port-marine-safety-code.pdf

Adherence to the PMSC is monitored by the Maritime and Coastguard Agency, a division of the Department for Transport ("DfT"), to ensure levels of safety. The MCA is responsible for supporting DfT in developing and implementing the Government's maritime safety and environmental protection strategy and is responsible for monitoring the compliance of harbour authorities against the code. The above document sets out that potential exposure from failing to comply with the code could result in:

- a prosecution under Health and Safety at Work Act 1974 (undertaken by HSE)
- an incident or accident could involve the Marine Accident Investigation Branch.

3.1.12 Given that the responsibilities for monitoring and enforcement of statutory duties of a harbour authority are the responsibility of the above Government Departments and Agencies (ie primarily DfT and MCA), the MMO is concerned that the consequences of placing the obligations on lighting the harbour facilities solely in the DML means that the MMO will bear sole responsibility for the monitoring and enforcement of the statutory duties to light the harbour. These are not within the remit of the MMO – the responsibility falls to the other government bodies/agencies mentioned above.

3.1.13 Whilst it is correct that the MMO should ensure the harbour facilities are safely lit during the various phases of the project – and have this conditioned in a licence, as referred to DML Condition 38 – it is the MMO's view that this should not be seen as a substitute for a statutory obligation, which falls to the undertaker and should therefore be on the face of the DCO.

3.1.14 The MMO are not responsible for monitoring and enforcing harbour powers, it is a matter for the Statutory Harbour to regulate its own harbour operations at their own harbour facilities using its own powers (set out in Part 6 of the DCO), and if any enforcement action is considered appropriate, this may be taken by other bodies, including DfT, MCA etc. By removing the provisions from the DCO which relate to lighting of the harbour facilities, this removes the ability of those agencies to take any appropriate action for a failure to comply with the statutory obligations of a harbour authority.

DCO Part 6, Article 61

3.1.15 The MMO note that safety of navigation, relating to the provision of a 'Scheme' monitoring movement of vessels now appears in the DML. Therefore, the heading should be removed from the DCO and the contents page.

DCO Part 6, Article 62

3.1.16 The MMO note that the 'Rights to lease' within 62(2) references the 'object' in Schedule 2 to the HA 1964, this should read "objects".

DCO Part 6, Article 63

3.1.17 The MMO advises that there is a full stop which occurs prior to 'The undertaker', this should be removed.

DCO Part 6, Article 69

3.1.18 The MMO draws attention to the insertion of paragraph (2) to provide a defence in criminal proceedings, in light of our advice regarding Justice Impact Tests made throughout examination.

DCO Part 6, Article 70

3.1.19 The MMO suggest an alternative form of drafting below, which we suggest is included as a separate paragraph, as it adds clarity regarding the use of emergency powers:

'(x) Except in an emergency, the powers conferred by paragraph (X) may only be exercised at least 48 hours after the giving of the special direction'

DCO Part 6, Article 73

3.1.20 The MMO queries whether the title still reflects the nature of the 'facilities' given the temporary beach landing facility is now referred to as the 'temporary marine bulk import facility'. The MMO notes that if this is to be changed, this should also be reflected within the contents also.

DCO Part 6, Article 73A and Article 73B

3.1.21 The MMO further queries why the prescriptive dates are 28 days following the removal. We further flag the need for the removal of the temporary marine bulk import facility to be covered by the DML and to consider whether permission/consultation should be required with MMO prior to commencing the removal process.

3.1.22 The MMO further enquire as to whether it sufficiently clear that the powers in Part 6 will cease to have effect in respect of the temporary bulk landing facility only, and will the harbour powers still remain in force to enable the undertaker to regulate the permanent beach landing facility? As these are both considered to form part of the description of the harbour facilities.

3.2 Deadline 8 Submission – Deemed Marine Licence [Schedule 20 in REP8-036]

3.2.1 The MMO have reviewed the most recent draft DML submitted to PINS, which we understand is within Schedule 20 of REP8-036, and we provide our

outstanding comments on this draft below. However, the MMO have been engaging with the Applicant since this draft was submitted to refine the wording of the DML as much as possible. Where we have made agreements for further changes to be made to the DML for Deadline 10, we have stated so below.

Part 1, Article 1(1) 'Interpretation'

3.2.2 The MMO does not agree with the wording used for the definition of 'maintain'. The MMO advises that the word 'materially' is removed from the definition which states '[…]*provided such works do not give rise to any materially new or materially different environmental effects to those identified in the environmental information[…]'.* This is for the reasons outlined in sections 2.1.12 – 2.1.20 above.

3.2.3 The MMO note that the word 'plant' is still used in the DML (not when referring to the desalination pant). This is used in Condition 10(1)(b) and 52(1)(f). The MMO has previously advised the Applicant that it is not clear what 'plant' refers to and therefore if this term remains in the DML, the MMO advise that there is a definition inserted in the 'Interpretation' Article to explain this.

3.2.4 The final order of the 'Interpretation' Article should be alphabetical. Some changes are required to adhere to this, for example "CPMMP" should be after "condition", "MAP" should come before "Marine Case Management System", "MMMP" should come before "MMO", "VMP" should come after "undertaker", "Work No. 1A(bb)" should come before "Work No. 1A(m)". The MMO understands that these changes have been made by the Applicant for Deadline 10, apart from the placement of "CPMMP", which is still to be moved.

Part 2, Article 4 (1)(b)

3.2.5 The MMO does not agree with the wording of this Article. The MMO considers that reference to 'materially' new or 'materially' different effects should be removed. The MMO considers that the activities authorised under the DCO/DML should be limited to those assessed within the environmental impact assessment. This is for the reasons outlined in sections 2.1.12 – 2.1.20 above. The current wording of this Article is:

> *'(1) Subject to the licence conditions in Part 3 of this licence, this licence authorises the undertaker to carry out any licensable marine activities under section 66(1) of the 2009 Act which*
> *(a) are not exempt from requiring a marine licence by virtue of any provision made under section 74 of the 2009 Act; and*
> *(b) do not give rise to any* ***materially*** *new or* ***materially*** *different environmental effects to those assessed in the environmental information.'*

The MMO advises that (b) is changed to: 'do not give rise to any new or different environmental effects to those assessed in the environmental information.'

Part 2, Article 4(2)(a)(vii)

3.2.6 The MMO have requested that dredge volumes are included for all capital dredging in line with the maximum parameters assessed in the Environmental Statement ("ES"). The MMO notes that the Applicant has agreed to insert the capital dredging volumes within the updated DML submitted at Deadline 10 which the MMO supports. The MMO advises that all references to volumes should be stated in metres cubed ("m^3"). This comment is applicable throughout Part 2, Article 4(2) where dredging is a listed activity.

Part 2, Article 4(2)(a)(viii) and (ix)

3.2.7 The MMO has had sight of the draft DML that will be submitted at Deadline 10, and we note that the maximum dredging volumes for maintenance dredging have not been inserted. The maximum annual maintenance dredging volumes should be stated, in line with the maximum parameters within the ES, so that this is clear to readers of the DML. The MMO was informed by the Applicant on 12 October 2021 that this would be updated for Deadline 10.

Part 2, Article 4 (2)(b)

3.2.8 The MMO notes that Requirement 16 within the main DCO [REP8-036] Schedule 2 states the following:

> ***'Main development site: Removal and reinstatement***
>
> *Following completion of the SZC construction works, all temporary buildings, structures, plant and equipment required for construction, including Work No.3 (accommodation campus) and Work No. 1A(bb) (temporary beach landing marine bulk import facility), must be removed, and landscape restoration works implemented in accordance with the details approved for requirement 14.'*

The MMO has noticed that the DML licensed activities within Schedule 20, Part 2, Article 4(2)(b) does not list the licensable activity of removal of Work no. 1A(bb) the temporary beach landing marine bulk import facility. It is imperative that the removal of Work no 1A(bb) is included in the licensed activities should the Applicant wish to remove this structure. The MMO acknowledges that this has been assessed within the ES and so this suggests that it is just a matter of including wording to this effect within the DML.

3.2.9 Furthermore, the temporary Marine Import Facility ("TMBIF") was already defined in Part 1, Article 1(1) as part of "Work No.1A(bb)" and therefore does not need to be defined again. The acronym TMBIF can just be used here.

Part 2, Article 4(2)(e)(iv)

3.2.10 The MMO requests that the maximum volume of anti-scour material is included in the DML in line with what was assessed in the ES. The MMO notes that the Applicant has agreed to do this for the DML which will be submitted at Deadline

10. This comment is applicable throughout Part 2, Article 4 of the DML where anti-scour material is referenced in the licenced activities.

Part 2, Article 4(2)(e)(vii)

3.2.11 The MMO also requested that the maximum disposal volume is stated here. The MMO notes that the Applicant has agreed to do this for Deadline 10. This is applicable throughout Part 2, Article 4 where disposal is referenced in the licenced activities.

Part 2, Article 4(2)(n) and (m)

3.2.12 The MMO notes that the Applicant has only included the marine licensable activities to construct the temporary desalination plant. The MMO advises that additional activities must be added to consent the removal of these structures. The MMO is aware that the Applicant intends to action this for Deadline 10 and we support the inclusion of these removal activities.

Part 2, Article 7

3.2.13 The MMO have previously advised that the disposal site coordinates listed in Part 4, Table 10 of the DML fall slightly outside of those coordinates listed for the authorised development in Part 4, Table 1. It was noted that if this is intentional then the wording of this Article should be reworded to reflect this. The Applicant has proposed the following new wording to the MMO:

> '*The licensed activities must be carried in either the area bounded by the coordinates set out in Part 4 (Table 1) or, in relation to the disposal of capital dredge material and drill arisings (pursuant to condition 4(2)(p)) only, in the area bounded by the coordinates set out in Part 4 (Table 10), each defined in accordance with reference system World Geodetic System 1984 (WGS84).'*

The MMO approves of this new wording. In addition to this, the licenced activities section must be updated to ensure the correct coordinates tables are being referred to. In REP8-036 the Table number should be updated to 'Table 10' in Article 4(2)(e)(ii) and (vii); Article 4(2)(g)(ii) and (vii); Article 4(2)(i)(ii) and (vii); Article 4(2)(j)(iii); Article 4(2)(k)(iii); Article 4(2)(l)(iii); Article 4(2)(m)(iii); Article 4(2)(p)(i) and (ii)).

Part 3, Conditions 8 and 9

3.2.14 The MMO notes that this Article has been removed. The MMO disagree with this removal and suggest the following wording is added back in:

> '*Should the undertaker become aware that any of the information on which the granting of this licence was based was false or misleading in any material particular, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what*

information was false or misleading in any material particular and must provide to the MMO the information as it should have been had it not been false or misleading in a material particular.'

The MMO have been informed that the Applicant is intending to add this in the DML for the Deadline 10 submission. However, the MMO has had sight of the wording that the Applicant intends to use which is as follows:

'Should the undertaker become aware that any of the information on which the granting of this licence was based was materially false or misleading, the undertaker must notify the MMO of this fact in writing as soon as is reasonably practicable. The undertaker must explain in writing what information was materially false or misleading and must provide to the MMO the correct information. Any oil, fuel or chemical spill within the marine environment must be reported to the MMO Marine Pollution Response Team as soon as reasonably practicable, but in any event within 12 hours of being identified in accordance with the following, unless otherwise advised in writing by the MMO

(a) within business hours on any business days: 0300 200 2024;
(b) any other time: 07770 977 825; or
(c) at all times if other numbers are unavailable contact: 0845 051 8486 or dispersants@marinemanagement.org.uk

9(A) With respect to any condition which requires the licensed activities to be carried out in accordance with the plans, protocols or statements approved under this licence, the plans, protocols or statements so approved are taken to include amendments that may be approved in writing by the MMO subsequent to the first approval of those plans, protocols or statements provided it has been demonstrated to the satisfaction of the MMO that the subject matter of the relevant amendments do not give rise to any materially new or materially different environmental effects to those assessed in the environmental information.'

The MMO welcomes that our advised wording has been added, however we disagree with the inclusion of 'materially' before 'false or misleading'. This is for the reasons we have set out above in section 3.2.5.

Furthermore, we disagree with this condition being merged with the pollution reporting condition which begins with 'Any oil, fuel or chemical spill…'. This is because two separate notifications to different MMO teams are required here, and so merging this into one condition is confusing. As per Part 1, 2 (2) and (3) marine.consents@marinemanagement.org.uk and the MMO Marine Case Management System (MCMS) should be used to notify the MMO of any changes to the environmental information as per the first part of this Article. Whereas, the Marine Pollution Response Team, whose contact details are stated in the Article, must be contacted in the emergency situation of an oil fuel or chemical spill in the marine environment. Therefore, the Marine Pollution

reporting condition which starts at 'Any oil, fuel or chemical spill…' should be separated out as its own stand alone Article.

Furthermore, Article 9(A) relates to yet another separate topic, as it relates to updates to any of the plans, protocols and documents which are approved by the MMO under the DML conditions. As this does not related to Marine Pollution the MMO advises that this should be a new Article number, for example, Article 10.

Part 3, Condition 11(3)

3.2.15 The MMO continue to disagree with the incorporation of determination dates within the DML. This applies throughout the DML conditions where 'determination dates' are referred to and our reasoning for this is explained in the outstanding issues section above (section 2.1).

Part 3, Condition 11(4)

3.2.16 The MMO notes that where reference to agreement with the MMO is included in the DML, it must be stated that agreement with the MMO is 'in writing'. For example the wording in this condition should instead read:

'(4) The detailed method statements must be implemented as approved unless otherwise agreed with the MMO ***in writing****.'*

Part 3, Condition 17(5)

3.2.17 The MMO advised that Part 3 Condition 17(5) should be removed because we do not agree with a 'deemed approval' of the CPMMP. The MMO notes that the Applicant has agreed to remove this for Deadline 10. The Applicant has proposed the following new wording for this condition:

'(1) No licenced activity or phase of activity may commence until a CPMMP (marine) has been submitted to and approved by the MMO in writing in consultation with the Environment Agency. The CPMMP (marine) must be in general accordance with the Draft Coastal Processes Monitoring and Mitigation Plan and must include, but is not limited to

(a) Details of the area to be monitored;
(b) the methods for monitoring;
(c) the duration of monitoring;
(d) the trigger points for mitigation;
(e) a description of any proposed mitigation;
(f) examples of mitigation measures which could be implemented and which would be effective to mitigate particular results of the monitoring and how the appropriateness of each measure will be considered;
(g) details concerning its proposed review; and,
(h) details concerning the appropriate timing for a monitoring and mitigation cessation report to be prepared.

(2) The CPMMP (marine) must be implemented as approved by the MMO.

(3) Monitoring reports, as defined within the CPMMP, must be submitted to the MMO for approval in writing.
(4) Unless a shorter period is agreed with the MMO in writing, the undertaker must use reasonable endeavours to submit the CPMMP to the MMO at least 6 months prior to the proposed commencement of the relevant licenced activity or phase of activity.
(5) The determination date is 6 months from first submission of the CPMMP to the MMO.

The MMO agrees with this wording, apart from the inclusion of a determination date in (5). We have explained our reasoning for this in section 2.1 above.

The MMO further advises that the (a) – (h) inclusions should match the information that is required to be contained within the CPMMP via Requirement 7A of the DCO. This is in line with agreements that have been made between the MMO, Applicant and East Suffolk Council as explained within section 1.6 of REP9-030.

Furthermore, we have specifically requested that the addition '*(3) Monitoring reports, as defined within the CPMMP, must be submitted to the MMO for approval in writing.'* Is inserted into this condition for Deadline 10.

Part 3, Condition 14

3.2.18 The MMO has agreed with the Applicant that 14(1) will be updated to request that the *'name, address and function'* of any agents etc. will be provided to the MMO. MMO notes that 14(2) should also be updated to state this for consistency with the wording. The MMO understands that this should also apply to Condition 35(1)(e).

Part 3, Condition 17

3.2.19 The MMO understand that the name of the CPMMP will be changed to 'CPMMP (marine)' at Deadline 10. The MMO is content with this name change, however we note that this should then be used consistently used throughout the DML instead of just CPMMP. The MMO has had sight of a version of the DML that may be submitted at Deadline 10 which is missing this new term at line 4 of Condition 14 after reference to the draft CPMMP and at Conditions 14(3), 14(4) and 14(5).

Part 3, Condition 18(3) and (4)

3.2.20 The MMO note that the Applicant has proposed to half the time in which the MMO would have to review this submission. The MMO initially requested that these documents should be provided 6 months prior to works commencing but this has now been reduced to 3 months. The MMO request that this timescale is increased back to 6 months to allow the MMO sufficient time for review, and that provision (4) relating to a 'determination date' is removed (see section 2.1).

Part 4 'During Construction, operation and maintenance'

3.2.21 The MMO do not deem a new part to be necessary here as what follows are also conditions as per 'Part 3'. Adding a new part here suggests that what follows are not also 'Conditions'. Therefore, the heading 'Part 4' should be removed and 'During Construction, operation and maintenance' should be a sub heading instead. The MMO notes that the Applicant has agreed to do this for Deadline 10.

Part 4, Condition 29 (New condition)

3.2.22 The MMO has agreed the inclusion of this new condition with the Applicant to ensure that the source of any rock or gravel that will be used within the marine environment as part of the works, for example the anti-scour material, is approved by the MMO prior to its use. This is to ensure that the rock or gravel is suitable to be used in the marine environment.

3.2.23 The MMO approve of the wording apart from the timescale for submission. The MMO advises that this should be 6 months to allow MMO sufficient time for review.

Part 4, Condition 34

3.2.24 The MMO requests that the Maintenance Activities Plan should also include 'details of where the licensed activities have been assessed in the environmental information'. This should be added to the list of information that must be provided within the plan. This is to evidence to the MMO at the stage that this is provided, and the specific maintenance activities have been identified which the Applicant was unable to identify at the time of consent, have definitely been assessed within the environmental information.

Part 4, Condition 35(1)(a)

3.2.25 The MMO notes that this condition states that the areas that will be dredged are set out in Part 4 (Tables 2 to 8). The MMO understands that a new Table will be added for the area that will be dredged for the temporary desalination plant, and therefore the MMO advises that this should be updated to ensure that the correct Table numbers are referenced, e.g. 'Tables 2 to 9'.

Part 4, Condition 36(4)

3.2.26 The MMO's comments on determination dates remain, see section 2.1.8 – 2.1.11 above. However, we note that a 3 month time period is considered too short to make a determination regarding this submission. The MMO has been informed that the Applicant intends to change this to 6 months in the DML submitted at Deadline 10. The MMO supports this change as it is a more appropriate timescale.

Part 4, Condition 37(4)

3.2.27 The MMO recommends that this is separated into a new stand alone condition because OSPAR reporting is required in relation to disposal activities only, whereas the rest of Condition 37 (1) – (3) relates specifically to dredging activities. Dredging and disposal are considered two distinct separate licensable activities and OSPAR reporting is a significant requirement for disposal activities. Separating this requirement into a new condition would make it clear to the reader that this is a completely separate matter to the bathymetrical surveys that are required by 37 (1) – (3) to confirm that the correct area and volume has been dredged.

Part 4, Condition 38

3.2.28 The MMO are content with this condition as worded in the DML. However please see sections 3.1.7 – 3.1.14 of this response for our comments on the need for the Applicant to also have provisions in relation to safety of navigation in the Harbour Powers section of the DCO. The MMO consider that there should be a condition in the DML and requirements in the Harbour Powers.

Part 4, Condition 40 (1)

3.2.29 The MMO understand that the Applicant is intending to add 'links to the CPMMP' as one of the activity details that must be included under this condition. For example, adding *'(f) links to the CPMMP'*. The MMO support this addition.

Part 4, Condition 40 (2)

3.2.30 The MMO has previously noted that report REP5-124 states that no piling would occur between May to July to avoid potential effects to breeding birds, with works commencing in August. Therefore, the MMO advised that this should be secured within the consent by way of a new DML condition outlining this timing restriction on piling. The MMO understands that this condition will be updated in the DML submitted at Deadline 10 to secure this timing restriction. The MMO supports this.

Part 4, Condition 41

3.2.31 The MMO understand that the Applicant is intending to add back in to 41(1) 'links to the CPMMP' as one of the activity details that must be provided under this condition. The MMO support this addition.

3.2.32 Additionally, the end of the sentence for 41(2) should also state 'in writing.'. This is for consistency with the rest of the DML. This applies throughout the DML as all approvals from the MMO should be 'in writing'.

Part 4, Condition 44(1)

3.2.33 The MMO understand that the Applicant is intending to add back in 'links to the CPMMP' as one of the activity details that must be provided under this condition. The MMO support this addition.

Part 4, Condition 45

3.2.34 The MMO advise that this condition should be updated to state that the monitoring reports that are required by the *Sabellaria* Reef Management and Monitoring Plan ("SRMMP") must be submitted to the MMO for approval in writing. The MMO has agreed with the Applicant that the condition will be updated for Deadline 10. The MMO has with the following wording being added:

> *'(3) Monitoring reports, as defined within the SRMMP, must be submitted to the MMO for approval in writing.'*

3.2.35 The MMO is aware that Natural England have raised a concern that this condition does not secure that a pre-construction survey must be undertaken at least 18 months prior to the works commencing to identify the extent of *Sabellaria* in the area. This is agreed in the draft *Sabellaria* Reef Monitoring and Management Plan ("SRMMP") that will be submitted at Deadline 10. This has raised concerns for the MMO that the wording of the DML conditions relating to monitoring plans are not explicit enough that pre-construction, construction, and post construction monitoring must be undertaken as per the agreements that have been made within the individual draft monitoring plans. For example, the following lines in Condition 45 are not clear enough on their own:

> *'(2) The construction of Work No 2B must be carried out in accordance with the SRMMP as approved by the MMO.*
> *(3) Monitoring reports, as defined within the SRMMP, must be submitted to the MMO for approval in writing.'*

3.2.36 As there is a pre-construction survey required, saying that construction will be undertaken in accordance with the plan may be misleading in terms of securing all monitoring required.

3.2.37 Therefore, the MMO propose that a further line is added in to this condition to explicitly state that pre construction, construction , and post construction monitoring must be undertaken in accordance with the monitoring agreed in the draft SRMMP, unless otherwise agreed in writing with the MMO. This will secure that the pre-construction survey 18 months prior will be undertaken, while allowing room for the monitoring requirements to be refined via the final SRMPP submitted post content.

3.2.38 The MMO advises that this line should be added into all of the conditions where monitoring is required. Monitoring has been agreed via the following draft plans: the SRMMP; the Fish Impingement Monitoring and Mitigation Plan; the Smelt Monitoring Plan; and the Coastal Processes Monitoring and Mitigation Plan. Therefore, the following DML conditions should also be updated: Part 3, Condition 50; Part 3, Condition 51; Part 3, Condition 17.

3.2.39 Furthermore, 45 (1) should be amended to change '*been submitted to the MMO in wring and approved by the MMO in writing.*' To just *'been submitted to and approved by the MMO in writing.'*

Part 4, Condition 48(1)

3.2.40 The MMO understand that the Applicant is intending to add back in 'links to the CPMMP' as one of the activity details that must be provided under this condition. The MMO support this addition.

Part 4, Condition 49

3.2.41 The MMO has agreed with the Applicant that the wording of this condition will be updated to the following in the DML submitted at Deadline 10:

'Drill arisings from Work Nos. 2B, 2D and 2F must only be deposited within the "Sizewell C" disposal site set out in Part 4 (Table 10).'

The MMO approves this new wording, and this is required to ensure that the appropriate disposal site is stated within the DML.

Part 4, Condition 50

3.2.42 The MMO advise that this condition should be updated to state that the monitoring reports that are required by the Fish Impingement and Entrainment Monitoring Plan ("FIEMP") must be submitted to the MMO for approval in writing. The MMO has agreed with the Applicant that the condition will be updated for Deadline 10. The MMO agreed with the following wording being added:

'(3) Monitoring reports, as defined within the FIEMP, must be submitted to the MMO for approval in writing.'

Part 4, Condition 51

3.2.43 The MMO advise that this condition should be updated to state that the monitoring reports that are required by the Smelt Monitoring Plan ("SMP") must be submitted to the MMO for approval in writing. The MMO has agreed with the Applicant that the condition will be updated for Deadline 10. The MMO agreed with the following wording being added:

'(3) Monitoring reports, as defined within the SMP, must be submitted to the MMO for approval in writing.'

Part 4, Condition 52

3.2.44 The MMO note that the Applicant is proposing to include details of the removal of these structures as part of this condition. The MMO agrees with this change. The Applicant has suggested changing the wording of this condition to the following wording:

'(1) Work Nos. 2M, 2N, 2O and 2P must not commence until the following activity details have been submitted to and approved by the MMO in writing in consultation with the Environment Agency. The details must include, but are not limited to:
(a) the location, design, size and shape of the temporary desalination plant intake head (including the Passive Wedge-Wire Cylinder (PWWC), outfall head and associated vertical shafts);
(b) the alignment (horizontal and vertical) of temporary desalination plant intake and outfall tunnels;
(c) start and end dates for the installation;
(d) installation methodology and detailed method statement;
(e) removal methodology and detailed method statement, to include depth to which the tunnels must be removed to avoid legacy impacts on coastal processes;
(f) any proposed mitigation;
(g) navigational lighting to be used on plant;
(h) vessels to be used; and
(i) links to the CPMMP (marine).
(2) The construction and removal of Work Nos. 2M, 2N, 2O and 2P shall be carried out in accordance with the details approved by the MMO.
(3) Unless a shorter period is agreed with the MMO in writing, the undertaker must use reasonable endeavours to submit the activity details to the MMO at least 6 months prior to the proposed commencement of the relevant Work No.
(4) The determination date is 6 months from first submission of the activity details to the MMO.'

The MMO approve of this wording apart from (1) which should state 'The *activity* details must include, but not be limited to: '.

Furthermore, in (2), '*shall'* should be replaced with '*must'* and the sentence should finish with '*in writing*.' This is for consistency with the rest of the DML.

3.2.45 However, the MMO advises that a further condition relating to the removal of the desalination plant should be included to clarify that the plant must be removed prior to water abstraction commencing. This is to limit the desalination plant's life span to the construction phase only as agreed in examination.

3.3 Deadline 8 Submission - 9.110 Sizewell C European Sea Bass Stock Assessment [REP8-131]

3.3.1 At Deadline 8 the Applicant submitted a European sea bass stock assessment report which explores, using conservative assumptions, the potential long term impact on sea bass stocks from SZC operating concurrently with Sizewell B ("SZB") (and HPC).

3.3.2 The assessment has used the existing International Council for the Exploration of the Sea ("ICES") stock assessment model for seabass. The ICES sea bass stock assessment describes trends in the size of sea bass spawning populations over 35 years (1985-2020). The ICES assessment includes survey data, commercial landings and discards and recreational mortality as well as changes in management measures.

3.3.3 The Impingement predictions for SZC have been incorporated within the model using conservative assumptions:

a) Extreme worst case: Applies upper 95% confidence intervals of unmitigated impingement losses for the 35-year time series. Upper 95% confidence intervals of impingement represent 1 in 40-year events. This assessment is an extreme worst case because it assumes no mitigation and 1 in 40-year impingement events occurring every year, for 35 years. Assumes no FRR benefits.
b) Mean FRR mitigated scenario: Applies mean FRR mitigated SZC impingement mortality. This assessment is the most realistic scenario.
c) Upper FRR mitigated scenario: Applies upper 95% confidence intervals of FRR mitigated SZC impingement mortality (i.e., FRR mitigation factor of 0.551 applied to U95 impingement estimates). This assessment represents a highly precautionary scenario of U95 mortality rates occurring for 35 years consecutively.

3.3.4 All assessment scenarios are run without accounting for the distribution of sea bass, which are not uniformly distributed in the Greater Sizewell Bay. Survey data demonstrated low catch rates offshore and 95% of sea bass were caught in-shore of the Sizewell-Dunwich Bank suggesting that impingement predictions scaled-up from SZB may overestimate sea bass impingement at SZC. Thus, the MMO considers that the SZC impingement losses used in the model can be treated as precautionary.

3.3.5 A cumulative effects assessment was also undertaken which included potential effects of HPC alongside effects of Hinkley Point B, Hinkley Point A, Sizewell A and SZB (which were already included in the baseline model).

3.3.6 None of the assessment scenarios, indicated any potential impact on sea bass stocks. This is consistent with the results of the Centre for Environment, Fisheries and Aquaculture ("Cefas") Equivalent Adult Value ("EAV")-based risk assessment which indicated that impingement impacts are very small compared to commercial fishing/recreational angling impacts.

3.3.7 The results indicate that if SZC had been operational in the period 1985 to 2020, impingement mortality would not have long-term effects on the dynamics of the adult sea bass population and environmental variation and fishing would have remained the overriding drivers of population dynamics. Results show that SSB would still have increased and decreased at the same times and at an almost identical rate whether or not SZC were operating. This is particularly evident during the periods of spawning biomass decline in the 1980s, and more recently

the 2010s. During this potentially sensitive period from 2010-2018 of low biomass (coinciding with CIMP) the population trends are barely discernible with or without the addition of SZC impingement mortality.

3.3.8 Therefore, the MMO consider that the results provide a high level of confidence that impingement impacts from SZC on sea bass will not be significant either alone or in combination with SZB and HPC.

3.4 Deadline 7 Submission – Fourth Environmental Statement ("ES") Addendum – DCO Change 19 [REP7-029, REP7-030, REP7-284]

3.4.1 At Deadline 7 the Applicant applied for DCO Change 19, to construct a temporary desalination plant to supply water during the construction phase of the authorised development. The MMO has provided our comments on this change in the following submissions: EV-223 and section 4 in REP8-164. However, due to our ongoing review we were not able to comment on the impacts of this change on coastal geomorphology and hydrodynamics and marine water quality until now. Therefore, please find our comments on these matters below. We also provide an update on our comments on the impacts of the desalination plant on marine ecology and fisheries.

Impacts of Temporary Desalination Plant on Coastal Geomorphology and Hydrodynamics

3.4.2 The MMO considers that the only parts of the desalination plant which have a risk of impacts on coastal processes are the headworks and outfall diffusers. The intake and brine outfall pipes will be installed using directional drilling and therefore will be under the seabed. The landside elements are all away from the beach, being initially constructed on the main site platform area before being relocated to the temporary construction area. It is agreed that the marine works are too far away from the coastline to influence the littoral transport. However, the location of the intake and outfall appear to be close to the outer longshore bar. Therefore, the geomorphological element to consider is the impacts to the outer longshore bar. This is stated within the ES Addendum.

3.4.3 The assessment in REP7-030 is not clear on where the headworks will be located. Paragraph 3.7.16 states a location on the bar crest is considered as a precautionary approach, which is a reasonable decision, however Table 3.3 then refers to the discharges being outside of the outer bars.

3.4.4 If the headworks are on the outside of the offshore longshore bar as appears to be the plan then the MMO would consider the conclusions of the ES Addendum to be appropriate in relation to impacts on coastal geomorphology, and we would be content that effects will be not significant. However the approach of using a worst case scenario for the assessment with the headworks on the crest of the outer longshore bar loses the clarity of the assessment as it raises more questions about the risk of lowering sections of the crest of the bar. If the Applicant clarified that the headworks would be located on the outside of the

offshore longshore bar then the MMO would be more content to agree that the impacts from this are not significant.

3.4.5 It is stated that the backhoe dredging method will be used for the headworks which the MMO consider is reasonable for the small volume of dredging needed. This has the benefit of very limited sediment release rates and hence small environmental effects. However, paragraph 3.7.19 in REP7-030 refers to *'the plume created by the suction dredge head'*. The MMO advises that it should be be confirmed if a suction dredger is being considered here.

3.4.6 Paragraph 3.7.33 in REP7-030 states that the worst case scenario for scour is in tidal flow only as waves would act to infill and reduce scour depth. This means that scour patterns would not be constant and would change during and after wave events. However, in our view the effects of waves cannot be completely discounted. The worst case is more likely to be when the wave and current forces and associated turbulence are sufficient to initiate sediment movement at the structures but without the waves being large enough to initiate wider areas of sediment transport. However, even with this caveat the MMO consider the size of the estimated scour hole in the assessment to be suitably precautionary.

3.4.7 Paragraph 3.7.35 in REP7-030 mentions the effect of the jet at the outfall. The MMO consider that a view on the combined scour extent from the presence of the structure and the outfall flow should be added. There should be a similar assessment of the effect of the flow into the intake, noting the discharge is almost twice that of the outfall. If the precautionary assumption of the headworks being on the crest of the bar is taken forward the scour prediction shows a lowering of an almost 20 metre ("m²") section of the crest by up to 2.1 m. Such a change could have consequences for wave propagation which are not explored. Potentially this choice of location for the headworks is too precautionary and either should be amended/deleted or the consequences of this precautionary assumption taken forward.

3.4.8 The extent of scour in paragraph 3.7.35 is measured from the centre of the structure. It would be preferable as a precautionary assessment to measure it from the edge of the structure.

3.4.9 The MMO notes that there is no assessment of the cumulative impacts of the intake and outfall combined with the other marine works for coastal processes although there is for some of the other assessments.

Impacts of Temporary Desalination Plant on Marine Water Quality and Sediments

3.4.10 In considering the desalination plant the main aspect of concern for water quality is the discharge of high salinity, dense water with elevated concentrations of heavy metals and some phosphorus in it.

3.4.11 Paragraph 3.8.29 in REP7-030 states the use of a diffuser head would facilitate mixing to minimize the footprint of elevated salinity to within 6-10 m of the outfall.

However, the MMO notes that evidence is required to back up this assumption, noting the nature of the high density water and the low exit velocities expected. Furthermore, it is assumed that the form of the diffuser head is not yet finalised and so evidence that the final choice of diffuser achieves the required mixing will be needed once it is decided upon, particularly noting the risk of near bed pooling at times of low ambient current. Without mixing, the dense water with its associated chemicals would be expected to form a near bed dense plume moving downslope and affecting more of the seabed.

3.4.12 The MMO notes that our comments above are related to the detail of defining the relatively small effects that can be expected from the desalination plant. Based on the above evidence being provided, the MMO would agree that the impacts on marine water quality ad sediments are not significant.

Impacts of Temporary Desalination Plant on Marine Ecology and Fisheries

3.4.13 The MMO provided our comments on the impacts on marine ecology ad fisheries in EV-223 and section 4 in REP8-164. We advised that further information should be provided regarding the CORMIX modelling and outputs presented in the ES Addendum to assess the extent of the hypersaline plume from the desalination plant at different stages of the tide. This was required to enable the MMO to conclude that the desalination plant would have no significant effect on marine ecology and fisheries.

3.4.14 The Applicant has since provided further information to MMO regarding the CORMIX modelling. The MMO has reviewed this information and have the following comments.

3.4.15 The Applicant provided a table indicating how initial dilution varies across different states of tide and across the spring-neap cycle. This data indicates that the maximum distance over which salinity will be elevated by more than 1 practical salinity unites (“PSU”) above baseline is limited to 21m from the outfall at slack low water on a neap tide. These conditions will occur near the seabed due to the density of the saline plume. The data further indicates that the distance from the diffusers over which salinity might exceed 38.5 PSU (and thus might pose a risk of toxic effects on planktonic or benthic organisms) is limited to a maximum of around 4m (also on low water neap tides).

3.4.16 In our previous comments the MMO requested that the Applicant also provides more details about the variation in water depth and flow speed at the discharge location over a spring-neap tidal cycle. In this respect the modelling results remain relatively unsupported. From first principles, a saline discharge of 0.07metres cubed per second (“m3/s”) discharging several hundred metres offshore in a minimum water depth of around 5m will achieve a reasonable level of initial dilution and subsequent dispersion. Even with a relatively slow flow speed of 0.1metres per second (“m/s”), dilution by a factor of 4 would reduce salinity levels below concentrations at which they could be toxic to marine life. Such levels of dilution will be achieved within a short distance of the outfall and the modelling outputs presented by the Applicant are credible.

3.4.17 While the MMO consider that based on this modelling and our understanding of the discharge and the local receiving environment, any risks to marine ecology or fisheries receptors are likely to be minimal and not significant. We consider that further information should be provided to validate the CORMIX modelling.

4. Responses to any further information requested by the ExA for this Deadline

4.1 MMO Response to Rule 17 letter (dated 6 October 2021)

On 6 October 2021 the MMO received the Rule 17 letter from the ExA, including requests for further information to be provided at Deadline 10. Please find our responses to these requests set out in Table 1 below.

Table 1: The MMO's responses to the ExA questions in Rule 17 letter (6 October 2021).

Questions on Deadline 8 submissions			
3.	On a number of occasions in their document "MMO Full Submission" at Deadline 8 the MMO say that their earlier remarks / representations / objections can be "considered closed". Please will the MMO clarify what they intend the ExA to understand. Are the remarks withdrawn, do they stand (and the MMO has nothing to add), has the matter been resolved in some way and if so how, or is there some other meaning?	MMO	Where the MMO have commented that we consider our previous comments to be "closed", this is because these comments have been resolved due to further information that has been provided by the Applicant to address them. In particular, the majority of our previous comments on impacts to fish are considered to have been resolved as the Applicant provided the additional information that we requested. The MMO previously advised that further information should be provided to assess the feasibility of installing and operating an Acoustic Fish Deterrent ("AFD") system at Sizewell C prior to AFD being excluded from the cooling water system design. The Applicant provided Report REP5-123 which contained the information to address this request. The Applicant's main argument for not installing AFD is that the effects of fish entrapment are not significant and therefore additional mitigation is not justified.

			Additionally, there are safety risks in installing and maintaining the AFD and the benefits of the mitigation are unproven offshore. While the MMO support the use of mitigation to reduce impacts where possible, the MMO consider that the absence of an AFD system should not be an impediment to consenting the project in this case. This is because the predicted impacts on fish from entrapment without an AFD are not significant, the benefits of the mitigation are unproven offshore, and due to the safety risks from the installation and maintenance process. The MMO also previously advised that a further sensitivity analysis should be provided to examine the effectiveness of the Low Velocity Side Entry ("LVSE") design and the Fish Return and Recovery ("FRR") system. We advised that the analysis should assume that there will be zero effectiveness from the LVSE design and the FRR system due to there being no robust evidence to support that there will be any impingement benefit. REP6-028 was provided by the Applicant which reviewed the uncertainties in the effectiveness of the LVSE design and FRR system. Using conservative assumptions, the assessment confirms that impacts to fish from entrapment at population level will not be significant. Additionally, Appendix 2.17.A in REP6-016 has repeated the local analysis using the same conservative assumptions for LVSE and FRR and also confirms the impact from fish entrapment is not significant. The MMO considers that the conclusions of this report are appropriate.

			Furthermore, REP6-016 provides an updated local analysis using more conservative assumptions for LVSE and FRR. The analysis confirms that the local impact from fish entrapment is again not significant even with zero benefit from the LVSE and FRR. Therefore, MMO is content that the sensitivity analysis we requested was provided, and this supports the conclusions that the impacts on fish is not significant. MMO also requested that further information should be provided regarding the underwater noise impacts on marine fauna, fish and marine mammals from the works, especially in relation to the DCO change to build a second Beach Landing Facility. In response to this the Applicant provided REP5-124 which contains the additional information that we stated was missing from the underwater noise impact assessment. This report concludes that the impacts from underwater noise will not be significant and the MMO are content with these conclusions. Therefore, as a result of this additional information being provided, the MMO's previous comments on impacts to fish are resolved. The MMO does not require any further information on this matter. The MMO would however like to comment that we support the Environment Agency and Natural England if they consider that further information

			should be provided.
Questions arising from ISH15			
20.	The following questions were posed at ISH15 agenda items 3 and 4 to the government advisers and RSPB. The Environment Agency and RSPB were present and gave their responses. Please will Natural England and the MMO respond in writing. The ExA appreciates that the primary focus of the MMO is marine and that it may not have a view on all the questions. (a) Item 3(b) In relation particularly to terrestrial ecology, are there any submissions you wish to make as to the assessment for HRA of additional HGV movements? If so, what is the problem and what do you want to see? Are you satisfied with the HRA assessment of these matters? For completeness, please address this issue for nationally designated sites as well. Does the HRA assessment properly address the HGV movements arising from Change 19? (b) Item 3(c) Are there any submissions you wish to make as to the assessment for HRA of noise and vibration? So please include disturbance effects. (Natural England's and the MMO's attention is drawn to the Applicant's oral comments on the use of the word "disturbance" during ISH15 at Agenda item 3(a)). Please include disturbance effects on bird, marine mammal and fish qualifying features of relevant internationally and nationally designated sites. What is / are the problem / problems you identify and what do you want to see? (c) Item 3(d) Are there any submissions you wish to make as to the assessment for HRA	Natural England, MMO	(a) MMO has no comments on the assessment of additional HGV movements as this will take place on land and outside of the MMO's jurisdiction. (b) Overall, the MMO defer to Natural England's expert view on the appropriateness of the HRA assessment. However, upon our own review we can advise that we consider the assessment of effects from noise and vibration (including disturbance effects) are appropriate in relation to marine birds, marine mammals and fish. We agree with the Applicant's conclusions in REP7-030 which state that the noise and vibration effects from Change 19 are not significant. MMO does not require any further assessment of this. (c) MMO has no comments on the HRA assessment of air-quality as this is not within our remit. (d) See comments in 3.4.2 - 3.4.9 above for the MMO's view on impacts to coastal processes. The MMO defer to Natural England for the HRA assessment and impacts to nationally designated sites. (e) While the desalination plant outfall and combined drainage outfall ("CDO") would be operating at the same time, the extent

	of the air-quality effects of additional on-site diesel generators and of additional HGV movements? If so, what is the problem and what do you want to see? Are you satisfied with the HRA assessment of these matters? (d) Item 3(e) in relation particularly to marine ecology, are there any submissions you wish to make as to the assessment for HRA of the alterations to coastal processes and sediment transport arising from Change 19? If so, what is the problem and what do you want to see? Are you satisfied with the HRA assessment of these matters? And is there anything you want to say about effects of coastal processes and sediment transport on nationally designated sites (e) Item 3(h) The point is often made in the ES fourth addendum that the outfall is in same area as the FRR and that as that was assessed there are no additional issues for the desalination outfall construction, although the nature of what is discharged is different. But the FRR and the CDO would not operate together. The two headworks for the desalination plant will (a) be constructed together but more importantly be operating at the same time as the CDO. So are the comparisons with the FRR alone appropriate? (f) Item 3(h) Migratory fish have been screened out of the Third HRA Addendum at paragraphs 4.1.5 to 4.1.7, referencing an absence of potential effect pathways. However, these paragraphs also include reference to the seawater intake for the desalination plant consisting of a Passive Wedge-Wire Cylinder (PWWC) screen with a mesh size of		of the desalination plume is very small and there would not be any significant interaction with the CDO plume. On this basis the MMO are satisfied that the potential for significant cumulative effect is negligible. (f) The MMO defer to Natural England's view on whether migratory fish should be screened out at this stage. (g) See our comments 3.4.10 – 3.4.12 for the MMO's view on impacts to marine water quality. The MMO does not have any concerns to raise regarding chlorination or abstraction. Our understanding is that while there will be chlorination of the intake, the intake volume is very small relative to the cooling water intake and outfall. Sterilisation of this small volume of water, will not give rise to any significant effects on marine ecology or fisheries receptors. The key issue for the MMO is regarding the elevated salinity of the discharge from the desalination plant. Based on the further information provided by SZC concerning CORMIX dilution modelling, we do not have any concerns about the impact of the construction or operation of the desalination plant and outfall on marine ecology or fisheries receptors. However,

	approximately 2mm. Does this comply with the Sweetman Judgment (People Over Wind), which confirmed that measures to avoid or reduce effects are not permitted to be taken into account at the screening stage. Does the Applicant consider the PWWC to comprise a measure to avoid or reduce impacts to migratory fish? (g) Item 3(h) What submissions do you wish to make about Item 3(h) matters, including chlorination please, on habitat, bird, fish and marine mammals and fish qualifying features of internationally and nationally designated sites? Do you see any damage to qualifying features of internationally designated sites from abstraction? (h) Item 3(i) Are there any submissions you wish to make, over and above what we have already covered? (i) Item 3(j) Are there any submissions you wish to make, over and above what we have already covered? (j) Item 4 (a) and (b) The ExA did not have anything specific on these headings apart from one item on which see below. Apart that, do Natural England or MMO have any representations they wish to make about agenda items 4(a) and (b) which they have not made before? (k) Item 4(c) Please will Natural England and the MMO set out any further views they wish to express on the third addendum to the Shadow HRA report [REP7-279] and any relevant subsequent HRA material. (l) The one other item at agenda item 4 related to the marine mammal baseline and was		as stated above in 3.4.13 – 3.4.17, The MMO considers that further information should be provided to validate these modelling results. (h) The MMO has no further comments to make. Our concerns about impacts to fish and marine ecology (including birds and mammals) are stated under (g) above. (i) The MMO considers that further assessment of environmental impacts, particularly regarding in-combination/ cumulative impacts, would be necessary should the plant be required to supply water during the operational phase of the project. (j) The MMO defers to Natural England on HRA matters. (k) The MMO defers to Natural England on HRA matters. (l) Again, the MMO defers to Natural England on HRA matters.

	directed to the Applicant. It was as follows. In Section 6 of the Shadow HRA third addendum we see that it is noted at Section 6 of the Shadow HRA Third Addendum that the Applicant states the reference populations used in the marine mammal assessments have been updated since the Shadow HRA Report [APP-145] and first Shadow HRA Addendum [AS-178] were prepared. These are outlined in Table 6.1 of the Shadow HRA Third Addendum and the marine mammal assessments in Section 9 “have been based on the updated reference populations, as well as the previous reference populations to allow a like-for-like comparison.” Could the Applicant tell the ExA how their original HRA assessments for the Proposed Development as a whole would change if they used the updated reference population counts?		

4.2 MMO Response to PINS Email (Dated 7 October 2021)

4.2.1 The MMO have the following comments to make regarding the process for the opening of the Sizewell C disposal site that forms part of the proposed project, should consent be granted. The MMO contacted PINS via email on 7 October 2021 to discuss this, and were informed to include this within our Deadline 10 submission with a full explanation. Therefore please find our comments explained below.

4.2.2 For standard marine projects under MCAA the MMO action the opening of disposal sites by undertaking an administrative request to the Cefas dredge and disposal team, who manage this activity for disposal sites on the MMO's behalf, they allocate a disposal site code, input the appropriate coordinates and mark it as "open". This action is solely under the instruction of the MMO, who, following the decision to open the site, provide its approved site name (for this instance it would be "Sizewell C") and its coordinates.

4.2.3 The MMO and Cefas consider this task to be an administration activity and that the Cefas team responsible for opening the site for this case, should it be approved, are independent to those acting to advise the Applicant.

4.2.4 The MMO emphasise that use of this site could only be undertaken by "approved" projects, again, in this instance the Sizewell C project, should a consent be granted. The MMO has advised for the Sizewell C project, that the applicant include the proposed site name "Sizewell C" and its specific coordinates within the DML, to limit disposal activities to the exact area that has been assessed and consulted on through the Examination process and outlined within the disposal site characterisation report.

4.2.5 The MMO seeks clarity from the ExA as to when they would like the MMO to request the opening of the disposal site? Because the decision to open the site for this case falls within the wider scope of the authorised development, the MMO will await instruction from the ExA as to when/ whether they approve this to be actioned. The MMO notes that the administrative process could take a few days to undertake, and welcomes contact from the ExA should they require discussion on this matter

5. Written summaries of oral submissions made at Issue Specific Hearing 15 ("ISH15")

The MMO did not attend ISH15. Please see the MMO's submission in lieu of our attendance in document EV-223. This was submitted to PINS on 4 October 2021.